FINAL

PROGRAMMATIC ENVIRONMENTAL IMPACT REPORT/
PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT
FOR THE
LOS ANGELES RIVER REVITALIZATION MASTER PLAN

Prepared by
The City of Los Angeles
Department of Public Works
Bureau of Engineering

and the
US Army Corps of Engineers
Los Angeles District
Planning Division

With technical assistance from
Tetra Tech, Inc.

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CEQA Lead Agency: City of Los Angeles, Department of Public Works, Bureau of Engineering

NEPA Lead Agency: US Army Corps of Engineers, Los Angeles District, Planning Division

Title: Los Angeles River Revitalization Master Plan

Location: City of Los Angeles, Los Angeles County, California

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Abstract:

The overall purpose of this project is to improve the general environment of the Los Angeles River by improving natural habitat, water quality, recreation, open space, and economic values. Other purposes include providing public access to the river, identifying incidental recreation space, delineating trails, and reinvesting in the urban infrastructure system to encourage economic growth. This project would assist the City in addressing the basic environmental, social, and economic problems along the Los Angeles River that with time and inattention are expected to worsen. These problems include compromised water quality, accumulation of trash, contribution to polluted coastal waters, lack of habitat, risks to public safety, inadequate parkland and playing fields, homelessness, lack of affordable housing, and loss of jobs. The project is defined by the revitalization measures and alternatives, as well as the revitalization management framework that are discussed in the Los Angeles River Revitalization Master Plan. The planning area consists of an approximately one mile-wide, 32 mile-long river corridor and five opportunity areas along that corridor. The conclusions presented in this Programmatic Environmental Impact Report/Programmatic Environmental Impact Statement, based on an evaluation of potential impacts associated with future Los Angeles River Revitalization Master Plan implementation projects, are that adverse impacts associated with certain aspects of air quality, water quality, biological resources, recreation, and aesthetic resources are not likely to be significant. Beneficial impacts are expected on certain aspects of air quality, water quality, biological resources, recreation, and aesthetic resources.
EXECUTIVE SUMMARY

INTRODUCTION
This document is a combined Programmatic Environmental Impact Report (PEIR) and Programmatic Environmental Impact Statement (PEIS) for the Los Angeles River Revitalization Master Plan (LARRMP). This combined PEIR/PEIS document addresses potential environmental impacts of implementing the LARRMP in the foreseeable future. Revitalization measures for the Los Angeles River would begin to be implemented within five years of the anticipated adoption of the LARRMP in spring 2007 (near term) and would continue for many years (long term).

The City of Los Angeles, Department of Public Works (LADPW) Bureau of Engineering (BOE) is the California Environmental Quality Act (CEQA) lead agency, and the US Army Corps of Engineers Los Angeles District (Corps) is the National Environmental Policy Act (NEPA) lead agency for this combined PEIR/PEIS.

PROJECT BACKGROUND, PURPOSE, AND NEED
The Los Angeles River runs 51 miles through urban Los Angeles (both the city and the county). Over the past several decades, in many parts of the city, old rail yards, warehouses, and industrial enterprises have been developed along the river banks, restricting visual and physical access to the river. Such uses have historically precluded development of river-adjacent lands to enhance habitat, recreation, open space, and quality of life or to provide development opportunities and community-building urban nodes.

Over the past two decades, the City of Los Angeles, the Corps, through various partnerships, other agencies, such as Los Angeles County, and key stakeholder groups, such as Friends of the Los Angeles River (FOLAR) and individual communities, have been actively pursuing the quest of revitalizing the Los Angeles River. In keeping with these revitalization efforts, the LARRMP was prepared as a conceptual framework to guide the revitalization of the river through physical transformations to the channel itself and within the neighboring rights-of-way, as well as in some adjacent areas. The LARRMP provides a plan for restoring the river’s former ecological significance as a natural system, as a place that brings neighborhoods together and provides green space in the heart of the city, and as an amenity and investment that brings great value to the city. The LARRMP provides physical and policy recommendations for reclaiming and renewing the river’s ecological function, for providing more green space within the heart of the city, for strengthening and reconnecting city neighborhoods, and for reducing residents’ reliance on automobiles by increasing the opportunities for...
nonmotorized transportation. Furthermore, the LARRMP has been developed to complement and reinforce the many water resources and waterway planning efforts that have been completed or are underway in the Los Angeles River Basin. The LARRMP also incorporates expressed community needs and concerns, such as providing public safety and additional parkland and playing fields for youth, homelessness, loss of jobs, and affordable housing.

The LARRMP project is needed to help address basic long-standing environmental, social, and economic problems along the Los Angeles River that with time and inattention are expected to worsen. These problems include compromised water quality, accumulation of trash, lack of habitat, risks to public safety, inadequate parkland and playing fields, homelessness, lack of affordable housing, and loss of jobs.

PROJECT GOALS AND OBJECTIVES
The City of Los Angeles, along with the community, developed the following goals for the LARRMP:

- Establish guidelines for environmentally sensitive urban design, land use, and development for the Los Angeles River that will create economic development opportunities to enhance and improve river-adjacent communities; this would be accomplished by providing open space, housing, retail spaces (such as restaurants and cafes), educational facilities, and places for other public institutions;
- Improve the environment, enhance water quality, and improve water resources and the ecological functioning of the river;
- Improve, restore, and increase natural native habitats, eradicate invasive non-native habitats, and provide links and connections to existing habitats;
- Provide and improve public access to the river;
- Provide significant recreation space and open space and new trails;
- Preserve and enhance the flood control features of the river; and
- Foster a growth in community awareness and pride in a revitalized Los Angeles River.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES
Implementing the LARRMP measures over the near-term planning period (within five years of adoption) and the long-term planning period (beyond five years) constitutes the proposed action evaluated in this PEIR/PEIS. The general area of study includes one-half mile on each side of the 32-mile stretch of the Los Angeles River within the City of Los Angeles that begins approximately at Owensmouth Avenue in Canoga Park (at the confluence of Bell Creek and Arroyo Calabasas) and continues downstream to Washington Boulevard, near the northern boundary of Vernon (Figure ES-1). The study area is referred to in this PEIR/PEIS as the River Corridor. This study area also includes the five opportunity areas discussed in the LARRMP and evaluated in this PEIR/PEIS (Canoga Park, River Glen, Taylor Yard, Chinatown-Cornfields, and Downtown Industrial).

The LARRMP measures, alternatives, and the revitalization management framework are discussed below under four categories: physical modifications to the river channel, open space development, five opportunity areas, and revitalization management.
River Channel Modifications
For evaluation in this PEIR/PEIS, the potential river channel modification measures discussed in the LARRMP have been grouped into the two categories described below, river channel modifications without reduction in river flow velocity (referred to as near-term in the LARRMP) and river channel modifications with reduction in river flow velocity (referred to as long-term in the LARRMP).

River Channel Modifications Without Reduction in River Flow Velocity
These near-term channel modification measures are mainly vegetation enhancement (sometimes referred to as greening in the LARRMP and this PEIR/PEIS) of the existing river channel within the channel right-of-way (ROW). Primary design criteria for these greening measures include vegetation coverage up to a maximum 30 percent of the ROW area, limiting vegetation development to the area above the 50-year storm elevation, and developing intermittent (rather than continuous) habitat areas along the channel bottom. These greening measures also include, where appropriate, enhancing water quality treatment of stormwater outfalls by developing vegetative bio-swales and bio-filtration areas.

River Channel Modifications with Reduction in River Flow Velocity
Three long-term types of river channel modification measures were identified in the LARRMP that include flow velocity reduction measures to enhance flood protection and that would allow for the development and sustainability of vegetation in and along the river channel. There are characteristics that are common to the three velocity-reducing channel modification measures that differentiate them from the measures that do not reduce velocity. These characteristics are reducing channel flow velocity to less than 12 feet per second, greening the channel ROW up to a maximum 50 percent coverage (rather than to a maximum of 30 percent), and developing continuous (rather than intermittent) channel bottom habitat areas. Reducing the velocity of river water will increase the ability to sustain plant life that would be developed as part of the LARRMP greening effort and the enhancement of habitat.

The three types of velocity-reducing channel modification measures differ from one another primarily in the way velocity is reduced, as follows:

- **Type V-R 1** reduces velocity by developing off-corridor attenuation measures to reduce flows into the main Los Angeles River channel to below 12 feet per second. These attenuation measures are being undertaken in the Los Angeles River Basin as part of regional watershed study efforts that are underway. These efforts are outside the River Corridor Study Area identified in this PEIR/PEIS and therefore are not addressed in this PEIR/PEIS. Separate CEQA (and possibly NEPA) evaluations of potential impacts associated with these regional attenuation measures are being conducted as needed to comply with state and federal regulations.

- **Type V-R 2** reduces velocity by constructing underground linear culverts parallel to and adjacent to the river. This also allows for development of linear open space on top of the culverts.

- **Type V-R 3** reduces velocity by widening the channel through land acquisition.

Open Space Development
The LARRMP proposes a suite of open space development measures that could be implemented (either separately or in combination) during the near-term and long-term planning periods along the 32-mile River Corridor. This diverse array of open space development measures was generated from community-based
planning criteria and revitalization opportunities identified during LARRMP development. The main goal in implementing the LARRMP open space development measures is to eventually develop a continuous greenway along the entire River Corridor that connects adjacent and surrounding communities to and across the river to each other, while enhancing the habitat, recreation opportunities, aesthetics, water quality, and quality of life. The intention is to employ a suite of open space development measures in selected locations that highlight and increase awareness of revitalization, while improving access to the river.

For evaluation in this PEIR/PEIS, the open space development measures have been organized under the eight categories described below: parks, green streets, paseos (covered walkways/river access points) and promenades, trails and bikeways, pedestrian river crossings, river loops, gateways, and water quality and habitat.

**Parks**
The four types of park measures described below are proposed within the River Corridor: riverfront parks, linear parks, pocket parks, and recreation fields.

**Riverfront parks** are those developed along and adjacent to the river in locations when suitable land becomes available for this purpose. In addition to providing a mix of activities, portions of the park would also be used as vegetated open space for water quality enhancement. Potential design criteria include a 30-foot-wide landscaped buffer zone along the river edge, bio-swale, bio-filtration, detention, and infiltration areas, daylighting of existing storm drains, connections to adjacent communities, and access to the river.

**Linear parks** can be developed where available land along the river is restricted by other development, with the intention of including landscaped meandering paths, interesting rest areas, and viewpoints. Where practicable, connections to adjacent neighborhoods, promenades, and bio-filtration, bio-swale, and infiltration strips for water quality enhancement would be included.

**Pocket parks** would be developed in small local spaces within the River Corridor to provide a variety of passive, limited active, and rest areas. These park areas could be developed for such purposes as outdoor educational experiences adjacent to schools, joint-use neighborhood areas, and street-end or cul-de-sac parks.

**Recreation fields** include a variety of active sports fields and associated support facilities at appropriate locations along the River Corridor. Playing fields and courts could include softball, baseball, soccer, tennis, badminton, and basketball.

**Green Streets**
Three types of green streets could be developed within the River Corridor: local green streets, arterial green streets, and regional greenway connections. Features common to the three types of green streets are landscaping with native trees and shrubs to help achieve the “greenway connection” and “greenway extension” objectives described earlier; safe bike routes; traffic calming measures, such as speed humps, raised crosswalks, neck-downs, and textured paving; river-theme street furniture and direction signs; and water quality enhancement measures, such as bio-filtration, bio-swales, and infiltration strips.
**Paseos and Promenades**
These are land use development features (in construction areas and existing communities) along the River Corridor that would provide local access to the river and integrate with community-oriented pedestrian meeting and shopping places. Features that could be integrated at these locations include plazas and courtyards, pocket parks, habitat areas, water quality enhancement, boulevards, paseos, and river-adjacent promenades.

**Trails, Paths, and Bikeways**
These features involve developing safe, accessible, and aesthetic pedestrian and bicycle trails and paths that integrate with active and passive recreation opportunities offered by the other open space development measures along the River Corridor. The plan would be to eventually have a network of trails, paths, and bikeways developed along the 32-mile River Corridor that helps achieve the LARRMP greenway connection and greenway extension objectives described earlier.

**Pedestrian River Crossings and Bridge Underpasses**
These types of measures involve developing safe, accessible, and aesthetic structures for pedestrians and bicyclists to be connected to revitalization opportunities and public resources along and across the River Corridor. The goal is to eventually have a pedestrian river crossing about every half mile along the 32-mile River Corridor and to have as many bridge underpasses as practicable.

**River Loops**
These linear features would help achieve the main LARRMP goal of developing a continuous greenway along the entire River Corridor that connects adjacent communities. As discussed in the LARRMP, 16 River Loop segments have been identified along the 32-mile River Corridor. The objective in developing 16 loops is to establish distinct community zones along the River Corridor that provide river recreational circuits that are convenient and community oriented.

**Gateways**
Gateways would be developed to provide river-theme artistic structures at selected access points to the river within adjacent communities. The three types of proposed gateways include regional gateways at arterials and major access points, neighborhood gateways at local street ends, cul-de-sacs, and paseos, and infrastructure gateways at areas along river zone edges that are isolated by freeways. Design features common to the three gateway measures are river-theme amenities (such as trash containers and drinking fountains), ADA-compliant access, public art, native vegetation, interpretive and directional signs, and safety lighting.

**Water Quality and Habitat**
These measures would involve developing new or enhancing existing areas with native vegetation and landscaping to provide local habitat areas. Depending on the location and extent of land area available, these areas could also provide links to other natural or developed habitat areas within or adjacent to the River Corridor. Where appropriate, these open space measures could incorporate daylighting of existing and new stormwater outfalls, bio-swales, bio-filtration areas, and infiltration strips for surface runoff, with the goal of improving water quality of runoff in the River Corridor.
Five Opportunity Areas
As discussed in the LARRMP, five opportunity areas along the River Corridor have been initially selected as demonstration case studies from among the 20-plus sites initially reviewed. The five selected opportunity areas described below are Canoga Park, River Glen, Taylor Yard, Chinatown-Cornfields, and Downtown Industrial.

Each of the five opportunity areas presents a distinct set of river revitalization opportunities to demonstrate integration of LARRMP measures. Within each of the areas, appropriate river channel modification measures and open space measures have been organized to reflect existing land form and environmental characteristics, as well as community-based LARRMP revitalization opportunities and objectives. Also, the opportunity areas provide suitable locations for what are described in the LARRMP as reinvestment areas. These are specific regions within the opportunity areas where long-term land use changes can be undertaken to help achieve long-term economic viability and sustainability within a revitalized River Corridor. Potential reinvestment measures in the opportunity areas generally include redistributing, retrofitting (upgrading), and replacing land uses and infrastructure to help achieve the economic redevelopment/revitalization objectives identified in the LARRMP.

Two alternatives are described below for each opportunity area, except for Taylor Yard, where a single concept is proposed. At the other four sites, the second (B) alternative represents a more extensive set of river channel modification, open space, and reinvestment measures than the first (A) alternative, and these differences between alternatives are noted.

Canoga Park Opportunity Area is bounded on the north by Sherman Way, on the east by DeSoto Avenue, on the south by Victory Boulevard, and on the west by Topanga Canyon. The features making up the two alternative configurations of river channel modification, open space development, and reinvestment measures (Alternatives CP-A and CP-B), are shown in Table ES-1, below.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Alternative CP-A</th>
<th>Alternative CP-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel Modifications</td>
<td>River channel terraced on both the north and south sides for about 1,200 feet between Canoga and Variel. On the south side, the terrace accommodates public access to the water via a 15-foot-wide walkway, as well as water quality treatment terraces. Additional right-of-way acquired to create treatment terraces and Riverfront Park. On the north side, the existing channel right-of-way is maintained, and the bank is terraced to provide a 15-foot-wide hard surface walkway and linear park. Channel bottom is modified to develop intermittent habitat areas.</td>
<td>Same as for Alternative CP-A, except (1) terrace on north and south sides between Canoga and Variel extends an additional 800 feet, and (2) Arroyo Calabasas is daylighted to provide an urban water feature within the new Riverfront Park and through a corner of the Westfield Shopping Center parking lot.</td>
</tr>
<tr>
<td>Parks</td>
<td>Riverfront parks: (1) On the south side of the river extending south to front on Vanowen Street, and bound on the east by Alabama Street and on the west by Milwood Avenue.</td>
<td>Same as for Alternative CP-A, except the new riverfront park on the south side of the river would be expanded to extend from Arroyo Calabasas to Variel, with its southern edge remaining on Vanowen Street.</td>
</tr>
<tr>
<td></td>
<td>Linear parks: (1) North from the river to Sherman Way, within the MTA property between Canoga and Deering, currently being used as a landscape materials and stone yard. (2) Along north side of river at Basset.</td>
<td>Same as for Alternative CP-A.</td>
</tr>
<tr>
<td>Green Streets</td>
<td>Regional greenway connections: (1) North/south streets</td>
<td>Same as for Alternative CP-A.</td>
</tr>
</tbody>
</table>
### Table ES-1

<table>
<thead>
<tr>
<th>Measure</th>
<th>Alternative CP-A</th>
<th>Alternative CP-B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Arterial green streets:</strong> All north/south and east/west roadways not considered regional greenway connections.</td>
<td>Same as for Alternative CP-A.</td>
<td>Same as for Alternative CP-A.</td>
</tr>
<tr>
<td><strong>Local green streets:</strong> Jordan, Remmet, Milwood, Independence, Vasser, Alabama Avenues and Variel and Eton Streets.</td>
<td>Same as for Alternative CP-A.</td>
<td>Same as for Alternative CP-A.</td>
</tr>
<tr>
<td><strong>Paseos and Promenades</strong></td>
<td>Pasco from Sherman Way to the river in the mid-block between Deering Avenue and Eton Street.</td>
<td>Same as for Alternative CP-A, except that additional paseos would be created on the south side of the riverfront park every 300 feet between roadways.</td>
</tr>
<tr>
<td><strong>Bikeways and Trails</strong></td>
<td>Proposed routes are shown in Figure 2-14.</td>
<td>Proposed routes are shown in Figure 2-15.</td>
</tr>
<tr>
<td><strong>Pedestrian River Crossings and Bridge Underpasses</strong></td>
<td>Pedestrian bridges at Deering Avenue, and between Alabama and Remmet Avenues. Bridge Underpasses at Owensmouth, Canoga, and De Soto Avenues.</td>
<td>Same as for Alternative CP-A.</td>
</tr>
<tr>
<td><strong>Gateways</strong></td>
<td>Regional gateways at Owensmouth, Canoga, and De Soto Avenues.</td>
<td>Same as for Alternative CP-A.</td>
</tr>
<tr>
<td><strong>Neighborhood gateways:</strong> On north side of river at Jordan, Remmet, Milwood, and Independence Avenues.</td>
<td>Same as for Alternative CP-A.</td>
<td></td>
</tr>
<tr>
<td><strong>Water Quality</strong></td>
<td>Water quality enhancement: At confluence of Bell Creek and Arroyo Calabasas (see also Parks, above).</td>
<td>Same as for Alternative CP-A.</td>
</tr>
<tr>
<td><strong>Re-Investment</strong></td>
<td>Land acquisition for public use would be encouraged for parcels that have near-term potential to be developed as open space measures. Reinvestment would rely on responses of private property owners to revitalization improvements and opportunities.</td>
<td>The level and intensity of reinvestment measures would be substantially increased over the previous alternative (CP-A), including rebuilding the river within this opportunity area from the confluence of Belle Creek and Arroyo Calabasas to demonstrate the potential of collaborative measures; (2) civic investment in river revitalization spurring collaborative private investment; (3) increasing density and influencing land use mix based on LARRMP revitalization goals and objectives; (4) developing a mixed-use village within the Canoga Park Opportunity Area with a major retail and entertainment center that is connected to the Orange Line and Westfield Center; (5) developing open space greenway connections and internal greenways to support the mixed-use village concept; and (6) protecting single family homes in the area.</td>
</tr>
</tbody>
</table>

**River Glen Opportunity Area** is bounded on the north by Verdugo Wash, on the east by San Fernando Road, on the south by the Colorado Street freeway exit, and on the west by Griffith Park. The two alternative
configurations of river channel modification, open space development, and reinvestment measures (Alternatives RG-A and RG-B) are presented in Table ES-2.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Alternative RG-A</th>
<th>Alternative RG-B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Channel Modifications</strong></td>
<td>The Verdugo Wash confluence is environmentally expanded to serve as a regional water quality treatment wetland. On the east bank, the river channel is terraced and planted above the 50-year storm elevation to provide a river parkway experience, viewable from the I-5 freeway. The channel bottom is modified to develop intermittent habitat areas.</td>
<td>Same as for Alternative RG-A, except (1) Verdugo Wash is realigned to enter the Los Angeles River farther downstream, creating a small island of habitat, and (2) on the east bank, additional ROW is acquired and the river channel is terraced to provide a series of street end parks and water quality treatment terraces.</td>
</tr>
<tr>
<td><strong>Parks</strong></td>
<td>A continuous linear terraced park, extending south from the expanded Verdugo Wash confluence area to North Atwater Park.</td>
<td>Same as for Alternative RG-A, except the continuous linear terraced park from Verdugo Wash confluence area to North Atwater Park is developed, with greater emphasis on water quality enhancement measures.</td>
</tr>
<tr>
<td><strong>Green Streets</strong></td>
<td>Regional greenway connections: (1) East/west streets between the river and N. Pacific Avenue, with improved pedestrian crossings at San Fernando Road, W. Milford Street, W. Broadway, and W. Colorado Street; (2) San Fernando Road and the frontage road within the industrial area is modified through wider sidewalks, street trees and other landscape improvements, and a center median to create a more pedestrian-oriented north/south connection.</td>
<td>Same as for Alternative RG-A.</td>
</tr>
<tr>
<td><strong>Paseos and Promenades</strong></td>
<td>One paseo a half block north of Brazil Street and one a half block south of Brazil Street.</td>
<td>One paseo a half block south of Brazil Street and one a half block south of W. Milford Street.</td>
</tr>
<tr>
<td><strong>Bikeways and Trails</strong></td>
<td>Proposed routes are shown in Figure 2-17.</td>
<td>Proposed routes are shown in Figure 2-18.</td>
</tr>
<tr>
<td><strong>Pedestrian River Crossings and Bridge Underpasses</strong></td>
<td>Pedestrian bridges: Multiuse bridge south of the Ventura Freeway and an improved Colorado Street Freeway exit bridge with pedestrian access.</td>
<td>Same as for Alternative RG-A.</td>
</tr>
<tr>
<td><strong>Gateways</strong></td>
<td>Regional gateway at State Route 134.</td>
<td>Same as for Alternative RG-A.</td>
</tr>
<tr>
<td><strong>Water Quality and Habitat</strong></td>
<td>An expanded Verdugo Wash/Los Angeles River confluence that includes a terraced wetland habitat area and a realigned and braided Verdugo Wash. This improved wash is bounded by San Fernando Road on the east and Cutter Street on the south and would require the acquisition of several small recycling facilities, a propane gas dealership, and a Caltrans maintenance yard below the Ventura Freeway.</td>
<td>Same as for Alternative RG-A, except (1) as mentioned above, Verdugo Wash is realigned to enter the Los Angeles River farther downstream, creating a small island habitat and (2) a water quality/riverine habitat area is developed to the east of the Golden State Freeway, to bring the river into Griffith Park to the south of the Gene Autry Museum and Griffith Park Zoo.</td>
</tr>
<tr>
<td><strong>Re-Investment</strong></td>
<td>Currently underserved by its existing roadway network, this light industrial area would be the focus of an extensive roadway improvement plan, with the intent to create a</td>
<td>Same as for Alternative RG-A, except (1) grade separated crossings are developed at W. Milford and W. Broadway at San Fernando</td>
</tr>
</tbody>
</table>
Table ES-2
LARRMP Measures Comprising River Glen Opportunity Area Alternatives RG-A and RG-B

<table>
<thead>
<tr>
<th>Measure</th>
<th>Alternative RG-A</th>
<th>Alternative RG-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>contiguos roadway network, with expanded ROW to improve functionality. This alternative also includes protecting existing land uses and acquiring recyclers for the confluence business park.</td>
<td>Road to provide safer vehicular and pedestrian access to the industrial area and the river; and (2) existing land uses are redeveloped north of Brazil Street to capture economic development opportunities created by ongoing river revitalization.</td>
<td></td>
</tr>
</tbody>
</table>

Taylor Yard Opportunity Area is bounded on the north by Fletcher Drive, on the east by Metrolink, on the south by the Pasadena Freeway, and on the west by Blake Avenue. The river channel modification, open space development, and reinvestment measures for the proposed concept are presented in Table ES-3.

Table ES-3
LARRMP Measures Composing Taylor Yard Opportunity Area Proposed Concept

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>PROPOSED CONCEPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel Modifications</td>
<td>The east bank of the river channel is terraced for approximately one mile to provide for water quality treatment terraces. Channel bottom is modified to develop intermittent habitat areas.</td>
</tr>
<tr>
<td>Parks</td>
<td>Riverfront parks: (1) A regional park on the land parcel between the river and the Metro Link/Rail Corridor to the southwest of the Rio de Los Angeles State Park. This park area is bounded on the northwest by Edwards Way and on the southeast by the Golden State Freeway.</td>
</tr>
<tr>
<td>Parks</td>
<td>Linear park: (1) A continuous linear park along the western edge of the river between Fletcher Drive and the Pasadena Freeway.</td>
</tr>
<tr>
<td>Parks</td>
<td>Regional greenway connections: (1) East/west streets between the river and upland residential properties to the east on Fletcher Drive, Eagle Rock Boulevard, Division Street, Pepper Avenue, and Granada Street. (2) East/west streets between the river and residential properties to the west on Marsh, Newell, Blimp, and Birkdale Streets. (3) San Fernando Road between Fletcher Drive and the Pasadena Freeway.</td>
</tr>
<tr>
<td>Green Streets</td>
<td>Arttial green streets at San Fernando Road, Fletcher Drive, and Riverside Drive.</td>
</tr>
<tr>
<td>Green Streets</td>
<td>Local green streets at Gilroy, Newell, and Riverside Drive.</td>
</tr>
<tr>
<td>Paseos and Promenades</td>
<td>Paseos: Along Benedict and Birkdale Streets and Dorris Place.</td>
</tr>
<tr>
<td>Paseos and Promenades</td>
<td>Paseo promenades: Along Worthen and Eads Streets and Denby and Meadowvale Avenues.</td>
</tr>
<tr>
<td>Bikeways and Trails</td>
<td>Proposed routes are shown in Figure 2-20.</td>
</tr>
<tr>
<td>Pedestrian River Crossings and Bridge Underpasses</td>
<td>Pedestrian bridges: Multiuse bridges at Marsh, Newell, Blimp, and Birkdale Streets and to the south of Pasadena Freeway overpass. Bridge Underpasses at Fletcher Drive, Glendale Freeway, Golden State Freeway, Pasadena Freeway, and North Broadway.</td>
</tr>
<tr>
<td>Gateways</td>
<td>Regional gateways at Fletcher and Riverside Drives.</td>
</tr>
<tr>
<td>Gateways</td>
<td>Neighborhood gateways at Worthen and Eads Streets and Meadowvale Avenue.</td>
</tr>
<tr>
<td>Water Quality and Habitat</td>
<td>As above, the east bank of the river channel is terraced for approximately one mile to provide for water quality treatment, and the channel bottom is modified to provide riparian habitat (see also Parks, above). Habitat improvements at the confluence of the Arroyo Seco and the Los Angeles River.</td>
</tr>
<tr>
<td>Reinvestment</td>
<td>It is assumed that other Taylor Yard planning establishes land use on the east bank of the river. Emphasis is placed on green connections between the east and west banks of the river and to parks and neighborhoods. It is further assumed that market pressure will gradually cause replacement of west bank small industry with mixed-use development, in keeping with the river revitalization theme.</td>
</tr>
</tbody>
</table>
Chinatown-Cornfields Opportunity Area is bounded on the north by the Metrolink Gold Line, on the east by Avenue 18, on the south by the Union Station Rail Line, and on the west by Spring Street/Alameda Boulevard. The two alternative configurations of river channel modification, open space development, and reinvestment measures (Alternatives CC-A and CC-B) are presented in Table ES-4.

<table>
<thead>
<tr>
<th>Table ES-4</th>
<th>LARRMP Measures Comprising Chinatown-Cornfields Opportunity Area Alternatives CC-A and CC-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure</td>
<td>Alternative CC-A</td>
</tr>
<tr>
<td>Channel Modifications</td>
<td>The west bank of the river channel is terraced back along the river under the existing rail line to provide for a linear park. The east bank of the channel provides public access to the river's edge and an urban promenade (turf and shade trees) with a pedestrian and bicycle path along the top of the bank. Public access is provided via a 15-foot-wide walkway at the top of the west bank, with steps leading down to the water's edge.</td>
</tr>
<tr>
<td>Parks</td>
<td>Riverfront parks: (1) The Los Angeles State Historic Park is developed to extend north to the river edge.</td>
</tr>
<tr>
<td>Green Streets</td>
<td>Regional greenway connections: East/west streets between downtown and Lincoln Heights along Spring and Main Streets.</td>
</tr>
<tr>
<td>Paseos and Promenades</td>
<td>Pasos mid-block from northwest to southeast a half block south of Elmyra and Mesnager Streets, and along a realigned College Street.</td>
</tr>
<tr>
<td>Bikeways and Trails</td>
<td>Proposed routes are shown in Figure 2-22.</td>
</tr>
<tr>
<td>Pedestrian River Crossings and Bridge Underpasses</td>
<td>Pedestrian bridges: Just upstream of Chavez Avenue.</td>
</tr>
<tr>
<td>Gateways</td>
<td>Regional gateways at Main, Leroy, and Elmyra Streets.</td>
</tr>
<tr>
<td>Water Quality and Habitat</td>
<td>All properties within the opportunity area would be looked at as potential reinvestment areas, with the exception of the William Mead Housing Project and its associated school and the DWP transfer station. The reinvestment focus would be on creating residential/mixed-use frontage along Spring Street, mixed-use traditional Main Street, and residential frontage along the linear open space between the state park and the river. Existing lot and block structure</td>
</tr>
</tbody>
</table>
Table ES-4
LARRMP Measures Comprising Chinatown-Cornfields Opportunity Area Alternatives CC-A and CC-B

<table>
<thead>
<tr>
<th>Measure</th>
<th>Alternative CC-A</th>
<th>Alternative CC-B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>would be continued to allow incremental redevelopment to use existing infrastructure where possible.</td>
<td>and public housing would be redeveloped and relocated.</td>
</tr>
</tbody>
</table>

Downtown Industrial Opportunity Area is bounded on the north and east by the Santa Ana Freeway, on the south by the Santa Monica Freeway, and on the west by Alameda Street. The two alternative configurations of river channel modification, open space development, and reinvestment measures (Alternatives DI-A and DI-B) are presented in Table ES-5.

Table ES-5
LARRMP Measures Comprising Downtown Industrial Opportunity Area Alternatives DI-A and DI-B

<table>
<thead>
<tr>
<th>Measure</th>
<th>Alternative DI-A</th>
<th>Alternative DI-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel Modifications</td>
<td>The river channel is opened up and terraced back in three locations on the east side to provide for small pocket parks and green street connections back into the community. On the west side, an urban promenade is created at the top of the bank, and the existing trapezoidal channel wall is reconfigured as a vertical wall. Public access is enhanced by locating rail on trestles at select locations and providing grade separated under crossings.</td>
<td>Same as for Alternative DI-A, except the east side of the channel would be terraced to provide water quality treatment and open space between the Santa Ana Freeway and 7th Street.</td>
</tr>
<tr>
<td>Parks</td>
<td>(2) Developed along bank tops on west and east sides of river.</td>
<td>Same as for Alternative DI-A.</td>
</tr>
<tr>
<td></td>
<td>Pocket parks: (1) Created on the east side of the above-mentioned grade separated crossings within the industrial area, to provide additional open space to make up the necessary grades to accommodate the rail crossings. (2) At 3rd, Willow, and Jesse Streets.</td>
<td>Pocket parks: Created on the west side of Mission Road at the intersection of Gabriel Garcia Marquez Street, 3rd Street, 5th Street, 6th Street, and Jesse Street, to improve access to the new Riverfront Park.</td>
</tr>
<tr>
<td>Green Streets</td>
<td>Regional greenway connections at east/west streets between Downtown and Boyle Heights along 1st, 4th, 6th, and 7th Streets.</td>
<td>Same as for Alternative DI-A.</td>
</tr>
<tr>
<td></td>
<td>Arterial green streets: Along 1st, 4th, 6th, and 7th Streets.</td>
<td>Same as for Alternative DI-A.</td>
</tr>
<tr>
<td></td>
<td>Local green streets: All north/south and east/west primary local roadways within the opportunity area boundary.</td>
<td>Same as for Alternative DI-A.</td>
</tr>
<tr>
<td>Paseos and Promenades</td>
<td>Paseos: Every 400 feet in new developments.</td>
<td>Same as for Alternative DI-A.</td>
</tr>
<tr>
<td></td>
<td>Paseo promenades: Along 3rd and Willow Street.</td>
<td>Same as for Alternative DI-A.</td>
</tr>
<tr>
<td>Bikeways and Trails</td>
<td>Proposed routes are shown in Figure 2-25.</td>
<td>Proposed routes are shown in Figure 2-26.</td>
</tr>
</tbody>
</table>
Table ES-5
LARRMP Measures Comprising Downtown Industrial Opportunity Area Alternatives DI-A and DI-B

<table>
<thead>
<tr>
<th>Measure</th>
<th>Alternative DI-A</th>
<th>Alternative DI-B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pedestrian River Crossings and Bridge Underpasses</strong></td>
<td>Bridge underpasses at Hollywood Freeway, 1st, 4th, 6th, and 7th Streets and Santa Monica Freeway.</td>
<td>Same as for Alternative DI-A.</td>
</tr>
<tr>
<td><strong>Gateways</strong></td>
<td>Regional gateways at 1st and 6th Streets.</td>
<td>Same as for Alternative DI-A.</td>
</tr>
<tr>
<td><strong>Neighborhood gateways at 3rd and Willow Streets.</strong></td>
<td>Same as for Alternative DI-A.</td>
<td>Same as for Alternative DI-A.</td>
</tr>
<tr>
<td><strong>Water Quality and Habitat</strong></td>
<td>As described in Parks above, a linear park on east side of river.</td>
<td>Same as for Alternative DI-A, except a larger park/open space/habitat would be developed in the space provided by realigning the two rail lines from the east side of the river to the west side or by burying the existing through tracks below ground. See Parks above.</td>
</tr>
<tr>
<td><strong>Re-Investment</strong></td>
<td>Underused properties within the opportunity area would be identified where new live-work units could be developed that reflect the existing character and use mix of the neighborhood. Existing industrial land uses would be protected. The rail line would be shifted to the easternmost rail lines to provide additional parkland adjacent to the river. The rail would be placed on trestles at select locations to improve access to parks.</td>
<td>Same as for Alternative DI-A, except (1) new mixed-use live-work residential properties would be located within the new open space with street frontage along Mission Road; (2) the rail lines along western edge of river would be consolidated; and (3) the inefficient industrial uses (in terms of jobs-per-square-foot) located between 7th Street, the Santa Monica Freeway, and the river would be transformed into a greater density of industrial jobs or residential live-work units.</td>
</tr>
</tbody>
</table>

**Revitalization Management**
As discussed in the LARRMP, the successful implementation of the LARRMP will require the collaboration and cooperation of the governing jurisdictions (City of Los Angeles, Los Angeles County, US Army Corps of Engineers) and the other agencies responsible for the safe and proper functioning of the Los Angeles River. A “river authority” is proposed in the LARRMP to coordinate the functions of these agencies. The LARRMP identified the need to provide guidance and leadership in implementing measures and developments within the River Corridor, and the need was identified to create a nonprofit “river foundation,” to raise funds to achieve the LARRMP revitalization goals and objectives. These key river revitalization management entities are described below, followed by a discussion of other revitalization management tools to help implement the LARRMP.

**River Authority**
The City, County, and Corps are responsible for the physical structures, safety, maintenance, operations, integrity, and water quality of the Los Angeles River ROW. These jurisdictions would join to form the Los Angeles River Authority and would be jointly responsible for river operation and maintenance, water quality, public liability, construction permitting, regulatory compliance, river reconstruction, and river greenways and trails.
Revitalization Corporation
A not-for-profit Los Angeles River Revitalization Corporation would be created with representative membership from willing business enterprises interested in helping develop a revitalized River Corridor. The boundary of the Revitalization Corporation’s jurisdiction would be approximately one-half mile on each side of the river ROW. The Revitalization Corporation would be able to own and develop land and buildings, to manage and operate facilities, and to use legal funding measures and form partnerships to support implementation of the LARRMP objectives. Furthermore, the corporation would be empowered to bring together public and private financing for river-related and community revitalization projects. It would develop collaborative development plans for specific economic development projects using special districts and other available management tools and would promote the establishment of partnerships between public, private, and nonprofit entities to help achieve LARRMP goals and objectives.

River Foundation
A not-for-profit Los Angeles River Foundation would be created by private individuals and private funding, with representation from the arts, the entertainment industry, corporations, and charity organizations. The River Foundation would develop financial assets to fund measures within the River Corridor to further environmental, educational, social, social justice, and sustainability interests of river-related communities. The River Foundation would support and develop programs that were directly responsive to community needs and opportunities that evolved from river revitalization implementation. The boundaries of the foundation would not be restricted to the River Corridor, but its benefits would be directed at Los Angeles River revitalization.

River Improvement Overlay (RIO) District
The RIO District would provide design standards and guidelines for all new development, private development projects and public facilities, as well as arterial and collector streets that connect to the river within this district. The district boundary would typically include 500 feet on either side of the river, but in some locations the boundary would extend to areas where future revitalization opportunities have already been identified, such as the five opportunity areas, based on community planning. Substantial compliance with the RIO District design standards and guidelines would be determined by a Department of City Planning design review process for private development projects. Topics to be addressed in the review process include landscaping, stormwater management, building orientation, view corridors, paseos, exterior lighting, green building technology, setbacks, and signs. Design standards and guidelines for public facilities and public ways would emphasize water quality, pedestrian, bicycle, and equestrian connections to and across the river, landscape character, public parks and open space, compatible public utility easements, building location and orientation, directional and interpretive signs, and public art.

Future Specific Plans
For future specific plans for lands near the river, planning guidelines would be proposed covering topics such as site plans, landscaping, site lighting, building orientation, building setbacks, building density, parking lot lighting, green architecture, and signage. Although future implementation tools, such as specific plans and rezoning may take place within the boundaries of the RIO District, the integrity and function of the RIO District is anticipated to be maintained.
No Project Alternative
The No Project Alternative is evaluated in this PEIR/PEIS, in accordance with CEQA and NEPA requirements. With the No Project Alternative, the LARRMP measures described above would not be implemented. The No Project Alternative consists of what would be reasonably expected to occur in the study area in the foreseeable future if the LARRMP measures were not implemented, based on current plans and consistent with available infrastructure and community services. If the community-based measures and the governance structure presented in the LARRMP were not implemented, the short-term and long-term goals and objectives specific to the LARRMP would likely not be realized. However, the theme of revitalization of the Los Angeles River is also a prominent theme in other current environmental planning projects. This is especially true for the County of Los Angeles’ LA River Master Plan, prepared in 1996. Although the LARRMP is designed to enhance and expand upon the river revitalization goals and objectives inherent in the County’s LA River Master Plan, without the LARRMP, some of the river revitalization themes common to both plans would likely be realized under the County Master Plan, as well as the ongoing habitat restoration efforts of the Army Corps of Engineers in conjunction with the City of Los Angeles Bureau of Engineering and the Los Angeles Department of Water and Power. However, in the decade since completion of the County’s Master Plan, there remains a need for the City of Los Angeles and its partnering jurisdictions along the river to share in comprehensive, multi-agency coordination efforts regarding public access to the river, safety, security, and maintenance. The LARRMP’s proposed streamlined governance structure would coordinate river management and development—an improvement over localized river oversight practices and land use patterns. In addition, through the Plan, the City has an organizing principle to coordinate the implementation of longer-term, broader-scale river revitalization that would better serve residents within the River Corridor and the region.

Significantly, the LARRMP also brings forward new ways to realize the possibility of river restoration through the creation of new green spaces, such as parks and habitat, and through concrete removal that can support more significant environmental improvements. Should the Plan not be implemented, such changes would not take place in the near future. Also, should the Plan not be implemented, the five opportunity areas identified (Canoga Park, River Glen, Taylor Yard, Chinatown-Cornfields, and Downtown Industrial) would not receive comprehensive and concentrated attention and would not likely achieve such comprehensive river revitalization independently.

Alternatives Considered but not Evaluated in this PEIR/PEIS
During the process of developing the LARRMP, numerous locations along the 32-mile River Corridor were considered for establishing designated opportunity areas to demonstrate integrating different configurations of river channel modification, open space development, and reinvestment measures. The initial consideration of potential locations resulted in the selection of 20 “potential opportunity areas”: Canoga Park, Reseda Boulevard, Sepulveda Agricultural Area, Sepulveda Basin, Studio City - Coldwater Canyon to Whitsett, Tujunga Wash Confluence, Ventura Boulevard, Weddington Park, Spreading Grounds, Ferraro Fields, River Glen, Taylor Yard, Arroyo Seco Confluence, Chinatown-Cornfields, Mission Road Rail Yards, Boyle Heights Connector, Downtown Arts District, Downtown Industrial Area, Santa Fe Warehouse, and Sears/Crown Coach.

Several of the 20 locations initially selected already have initiatives in progress to begin to transform the Los Angeles River, and it was hoped that the LARRMP could expand the revitalization effort, as well as add momentum to these initiatives. On this basis, and through subsequent analysis and extensive community
discussion, the list of 20 areas was narrowed to nine. These nine areas, from which the five focused opportunity areas evaluated in this PEIR/PEIS were derived, included Canoga Park, Sepulveda Basin, Spreading Grounds, River Glen, Taylor Yard, Arroyo Seco Confluence, Chinatown-Cornfields, Mission Road Yard, and Downtown Industrial. Through further interactive community and public discussions and additional site investigation, the five opportunity areas were chosen for further design development in the LARRMP and evaluation in this PEIR/PEIS. The process of choosing the five opportunity areas was guided by the following considerations:

- The selected opportunity areas should demonstrate ideas for all three river areas, as initially categorized by Los Angeles County’s 1996 River Master Plan. These include the San Fernando Valley, the Glendale Narrows, and the Downtown area.

- Opportunity areas should capture opportunities for “quick-wins,” as well as for their potential to demonstrate a range of issues and opportunities to meet plan goals. Therefore, industrial land, land that is going through transition, and areas with transportation/railway challenges, for example, would also be considered as examples of how best to address multiple issues simultaneously.

- The opportunity areas should show practicality by having initial phasing components as well as bold longer-term implementation potential demonstrating strong civic value.

- The opportunity areas should be highly visible and beneficial to City residents.

- Priority should be given to opportunity areas that would not otherwise proceed on their own compared to sites that are being pursued by related efforts. For example, the Spreading Grounds, Arroyo Seco, and the Sepulveda Basin Opportunity Areas all have ongoing restoration and open space efforts by the Corps with local partnerships.

The fact that the LARRMP has brought forward five selected opportunity areas for implementation and evaluation at this time does not preclude the future development of revitalization measures at other locations within the River Corridor. If and when such development takes place, subsequent CEQA and NEPA evaluation of future projects would be required.

**Potential Impacts and Mitigation**

This PEIR/PEIS document presents an evaluation at a programmatic level of potential direct, indirect, and cumulative environmental impacts associated with the types of river channel modifications and open space development measures being proposed in the LARRMP within the River Corridor and the five opportunity areas. Collectively, this area has also been considered the “study area” for describing the existing conditions and for evaluating potential impacts.

It is important to emphasize that the evaluation of potential environmental impacts presented in this document is at a “programmatic level,” not at a “project level,” since no specific LARRMP projects have been identified in the study area for evaluation at this time. Therefore, the evaluation of environmental impacts presented below addresses potential impacts that would be likely to accompany future projects that may be proposed at various locations within the River Corridor and the five opportunity areas during the near-term and long-term planning periods.
This evaluation of potential impacts associated with implementing the LARRMP has addressed the following sixteen areas: agricultural resources; air quality; geology, soils, climate, and seismic hazards; hydrology, floodplains, and water quality; mineral resources; biological resources; land use; recreation; noise; public health and safety; transportation; utilities and infrastructure; socioeconomics; environmental justice; cultural resources; and aesthetic resources.

For each of the above resource areas, the approach taken in evaluating potential environmental impacts from future LARRMP projects has included identifying and evaluating potential environmental impacts associated with implementing future LARRMP measures in the River Corridor. This approach includes identifying potential direct and indirect impacts. Direct impacts are those occurring during the time of construction or in close proximity to a particular measure and at a particular location. Indirect impacts are those occurring as a result of implementing a measure, but later in time or not in close proximity. This approach also includes identifying both adverse and beneficial impacts, as well as cumulative impacts. Cumulative impacts are those that could result from the incremental impact of a measure when added to other past, present, and reasonably foreseeable future actions within the River Corridor and vicinity. The evaluation involved assigning a predicted level to potential impacts (low, moderate, and high) and assessing the likelihood of high impacts to be potentially significant.

During the evaluation of potential impacts on each resource area, potential mitigation actions and best management practices (BMPs) were identified. These mitigation actions and BMPs could be employed with implementation of potential future projects, in order to avoid, minimize, or reduce potential adverse environmental impacts on certain resource areas. Also, the evaluation included where further project-level investigations, studies, and assessments would be needed to accompany future LARRMP projects in order to better define potential project-specific environmental impacts and refine potential mitigation actions and BMPs that would reduce impact levels.

The evaluations of potential impacts on the sixteen resource areas took into account the numerous environmental laws and regulations at the federal, state, and local level that monitor and govern the sixteen resource areas evaluated within the study area and vicinity. Where feasible, the evaluations have recognized “significance criteria,” such as those provided in the Los Angeles CEQA Thresholds Guide, to help determine potentially significant levels of impacts from future LARRMP revitalization projects.

A summary of potential impacts, mitigation actions, and BMPs for each of the 16 resource areas evaluated is presented in Table ES-6, below. The table also indicates whether the predicted levels of potential impacts identified on each resource area were low, moderate, or high, and potentially significant.

The conclusions presented in this PEIR/PEIS are based on a programmatic-level evaluation of potential impacts from future LARRMP implementation projects. There could be potentially significant adverse impacts from certain aspects of air quality, water quality, biological resources, land use, noise, public health and safety, transportation, socioeconomic resources, environmental justice, and cultural resources. Furthermore, impacts from the remaining six environmental resource areas (agricultural resources; geology, soils, and seismic hazards; mineral resources; recreation; utilities and infrastructure; and aesthetic resources) are not likely to be significant. Beneficial impacts are expected from certain aspects of air quality, water quality, biological resources, recreation, and aesthetic resources.
<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agricultural Resources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>River Channel Modifications</td>
<td>ROW expansion in area just upstream of Sepulveda Basin could result in potential loss of designated agricultural lands.</td>
<td>Low</td>
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</tr>
<tr>
<td>Open Space Developments</td>
<td>Trail, paths, and bikeways as part of the River Loop in the area just upstream of Sepulveda Basin could result in loss of existing agricultural lands.</td>
<td>Low</td>
</tr>
<tr>
<td>Canoga Park Opportunity Area</td>
<td>No potential impacts were identified.</td>
<td>None</td>
</tr>
<tr>
<td>River Glen Opportunity Area</td>
<td>No potential impacts were identified.</td>
<td>None</td>
</tr>
<tr>
<td>Taylor Yard Opportunity Area</td>
<td>No potential impacts were identified.</td>
<td>None</td>
</tr>
<tr>
<td>Chinatown-Cornfields Opportunity Area</td>
<td>No potential impacts were identified.</td>
<td>None</td>
</tr>
<tr>
<td>Area</td>
<td>Potential Impacts</td>
<td>Level of Impact</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Downtown Industrial Opportunity Area</td>
<td>No potential Impacts were identified.</td>
<td>None</td>
</tr>
</tbody>
</table>
| River Channel Modifications              | Short-term construction activities and long-term potential increase in traffic would result in increases in fugitive dust and other criteria pollutants. | Short term high and potentially significant. Long term low to moderate. | When future LARRMP implementation projects are undertaken, potential adverse air quality impacts associated with construction of these projects can be reduced through the application of the following best management practices:  
  - Minimize the area disturbed by clearing, earthmoving, or excavating;  
  - Use water trucks or sprinkler systems in sufficient quantities to contain fugitive dust on-site; increased watering frequency should be required whenever wind speeds exceed 15 miles per hour; reclaimed (nonpotable) water should be used whenever possible;  
  - Spray all dirt stockpile areas daily or as needed;  
  - Implement permanent dust control measures, such as revegetating and landscaping, as soon as possible following completion of any soil-disturbing activities.  
  - Treat ground areas that are planned to be exposed for at least a month after initial grading with a fast-germinating native grass seed and watering until vegetation is established;  
  - Stabilize all disturbed soil areas not subject to revegetation using state- and federally approved chemical soil binders;  
  - Pave all roadways, driveways, walkways (if so designed) as soon as possible; similarly, finishing building pads as soon as possible after grading unless seeding or soil binders are used;  
  - Limit construction vehicle speeds to 15 miles per hour on any unpaved surface at the construction site;  
  - Cover all trucks hauling dirt, sand, soil, or other loose materials or maintaining at least two feet of freeboard (minimum vertical distance between top of load and top of trailer), in accordance with California Vehicle Code Section 23114; |
| Open Space Developments                  |                                                                                   |                                  |                                                                                                              |
| Canoga Park Opportunity Area             | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | Short term high and potentially significant. Long term low to moderate. |                                                                                                              |
| River Glen Opportunity Area              | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | Short term high and potentially significant. Long term low to moderate. |                                                                                                              |
| Taylor Yard Opportunity Area             | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | Short term high and potentially significant. Long term low to moderate. |                                                                                                              |
| Chinatown-Cornfields Opportunity Area    | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | Short term high and potentially significant. |                                                                                                              |
## Executive Summary

**Table ES-6**

### Summary Table

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
</table>
| Downtown Industrial Opportunity Area                                              | Long term low to moderate| • Install wheel washers where vehicles enter and exit unpaved roads onto streets or washing off trucks and equipment leaving the site;  
| Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | Short term high and potentially significant. Long term low to moderate | • Sweep streets at the end of each day if visible soil is carried onto adjacent paved roads; use water sweepers with reclaimed water, where feasible; and  
|                                                                                   |                           | • Have a dust control program and a monitor on-site to oversee watering or other measures to prevent off-site transportation of dust; contact information for the monitor should be provided to the SCAQMD. |

### Geology, Soils, and Seismic Hazards

**River Channel Modifications**
- Concrete and earth work would result in wind and stormwater erosion, local seismic hazards, impacts to soils in liquefaction zones. Extensive erosion and subsequent impacts to air and water quality could occur due to the substantial amount of ground clearing and earthwork involved with some projects. Soils would be subject to erosion until construction is complete and vegetation becomes re-established.  
- Most of the River Corridor from Canoga Park to downtown Los Angeles is in a liquefaction zone. As such, soils have a high potential of being unstable and liquefying, especially when disturbed and during rainy/wet periods.

**Open Space Developments**
- Impacts on soils in liquefaction zones and on disturbed soils that would be subject to erosion would be similar to those described under River Channel Modifications and Open Space Developments.

**Canoga Park Opportunity Area**
- Impacts on soils in liquefaction zones and on disturbed soils that would be subject to erosion would be similar to those described under River Channel Modifications and Open Space Developments.

**River Glen Opportunity Area**
- Impacts would be similar to those described under River Channel Modifications and Open Space Developments. Due to the presence of geologic hazards in the area (faults and

**Mitigation Measures/Best Management Practices**
- As specific LARRMP implementation projects are undertaken, site specific geologic and soil investigations should be conducted for each project, and the results used in the proper design of project features. A stormwater pollution control plan should be developed for each project site to include best management practices to help control erosion and soil loss. Design of specific project features should meet current design standards related to seismic hazards; to ensure public safety.  
- Mitigation actions would be similar at all project locations within the River Corridor and the five opportunity areas. The portion of the River Corridor from Canoga Park downstream to the Chinatown-Cornfields Opportunity Area is in a liquefaction zone. Mapped faults are in the Glendale Narrows, primarily affecting the River Glen Opportunity Area.

The following list of mitigation measures is recommended for all future projects to avoid and minimize potential adverse impacts related to geology, soils, and seismic hazards:
- Conforming to Los Angeles Building Code and Planning and Zoning Codes and incorporating proven design criteria into project features that account for potential seismic hazard risks.
- Performing on-site geologic and soil investigations by a licensed geologist.
### Table ES-6
#### Summary Table

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>liquefaction zone), work could cause or accelerate hazards that could result in</td>
<td></td>
<td>• Utilizing excavated material to the extent practical.</td>
</tr>
<tr>
<td>substantial damage to structures or expose people to substantial risk of injury.</td>
<td></td>
<td>• Coordinating work with local residents to keep them informed and to minimize conflicts, especially involving</td>
</tr>
<tr>
<td></td>
<td></td>
<td>road crossings and blasting.</td>
</tr>
<tr>
<td>Taylor Yard Opportunity Area</td>
<td>Moderate to High</td>
<td>• Coordinating work with state highway and local road departments to ensure the integrity of roads and bridges</td>
</tr>
<tr>
<td>Impacts would be similar to those described under River Channel Modifications and</td>
<td></td>
<td>is maintained, especially at the River Glen Opportunity Area.</td>
</tr>
<tr>
<td>Open Space Developments.</td>
<td></td>
<td>• Developing and implementing site-specific erosion control plans.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Revegetating exposed soils as soon as feasible after grading or construction.</td>
</tr>
<tr>
<td>Chinatown-Cornfields Opportunity Area</td>
<td>Moderate to High</td>
<td></td>
</tr>
<tr>
<td>Impacts on soils in liquefaction zones and on disturbed soils that would be</td>
<td></td>
<td></td>
</tr>
<tr>
<td>subject to erosion be similar to those described under River Channel Modifications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>and Open Space Developments.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Downtown Industrial Opportunity Area</td>
<td>Moderate to High</td>
<td></td>
</tr>
<tr>
<td>Impacts on soils in liquefaction zones and on disturbed soils that would be</td>
<td></td>
<td></td>
</tr>
<tr>
<td>subject to erosion be similar to those described under River Channel Modifications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>and Open Space Developments.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Hydrology, Floodplain, and Water Quality

<table>
<thead>
<tr>
<th>River Channel Modifications</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction sites could increase sedimentation and erosion rates by removing</td>
<td>Mitigation actions are similar at all future project locations within the River Corridor and the five opportunity</td>
</tr>
<tr>
<td>vegetation and concrete. Exposed soils during construction could erode and</td>
<td>areas. Of greatest concern is maintaining flood control functions, including during construction.</td>
</tr>
<tr>
<td>adversely affect water quality. Extensive erosion and subsequent impacts to air</td>
<td>Compromising existing flood control protection could have very significant adverse impacts, including the</td>
</tr>
<tr>
<td>and water quality could occur, especially where considerable amounts of ground</td>
<td>loss of life. A flood could have direct and devastating impacts on millions of people. With</td>
</tr>
<tr>
<td>clearing and earthwork were required. Soils would be subject to erosion until</td>
<td>appropriate analysis, design, and construction, adequate flood protection can be maintained. This project could</td>
</tr>
<tr>
<td>construction is complete and vegetation becomes re-established. Increased</td>
<td>also provide substantial improvements to area water quality parameters, thus improving the health and productivity</td>
</tr>
<tr>
<td>vegetation in the channel would also increase the amount of woody material and</td>
<td>of the river. The following mitigation measures are recommended for all future projects to avoid and minimize</td>
</tr>
<tr>
<td>vegetative debris that could be washed downstream during high-water events.</td>
<td>adverse impacts related to hydrology, floodplains, and water quality:</td>
</tr>
<tr>
<td>This material would likely get caught on bridge pilings and would restrict</td>
<td>• Perform hydrologic modeling and analysis to ensure flood protection is maintained or enhanced;</td>
</tr>
<tr>
<td>water flow. Project features that attract people</td>
<td></td>
</tr>
</tbody>
</table>
### Table ES-6
#### Summary Table

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
</table>
| to the river could also result in more trash being thrown on the ground, eventually making its way into area streams. This trash could adversely affect wildlife, public health, and aesthetics. | Short term high and potentially significant water quality impacts. Low to moderate impacts regarding vegetative debris and trash | • Remove or minimize the number of buildings and other facilities within flood hazard areas so that the floodway open space is preserved or enhanced;  
• Incorporate and design stormwater management facilities to reduce or retard the amount of peak runoff and to filter stormwater runoff;  
• Include kiosks with environmental education information on the effects and costs of littering;  
• Establish erosion control plans;  
• Revegetate exposed soils as soon as feasible after grading or construction; and  
• Incorporating BMPs, such as siltation fences and hay bales, during construction to minimize soil erosion from runoff.  
• Water quality in the river should be tested at locations where possible contamination is suspected.  
• The DTSC, DHS, and EPA should be contacted to help identify the best water quality sampling locations;  
• Incorporate best management practices designed to ensure control of potential pollutant loading, consulting with Regional Water Quality Control Board as appropriate;  
• Employ the Stormwater Best Management Practice Handbooks, published by the California Stormwater Quality Association, and other suitable publications for guidance in designing and implementing project-specific construction Stormwater Management Plans;  
• Continue BMPs post-construction to ensure ongoing efficiency and protection of water quality;  
• In subsequent construction of Open Space Development |
| Open Space Developments                                                           |                                                                                  | **|
### Table ES-6
**Summary Table**

<table>
<thead>
<tr>
<th>Opportunity Area</th>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
</table>
| Taylor Yard Opportunity Area          | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | Short term high and potentially significant water quality impacts. Low to moderate impacts regarding vegetative debris and trash. | Measures such as, walking and bike paths, picnic areas and nearby parking, incorporate the use permeable pavement and other surfaces to reduce stormwater runoff;  
- In subsequent construction of Open Space Development Measures, such as recreation fields, golf courses, and other landscaped areas, specific measures should be developed to control and treat irrigation and stormwater runoff that may contain pesticides and fertilizers.  
- The California Regional Water Quality Control Board should be consulted to help define appropriate mitigation measures.  
- Access roads, maintenance roads, and invert access roads should be constructed in accordance with accepted design standards, and in consultation with Los Angeles County, to ensure that maintenance activities are not unduly hampered, especially during emergencies and high channel flows. |
| Chinatown-Cornfields Opportunity Area | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | Short term high and potentially significant water quality impacts. Low to moderate impacts regarding vegetative debris and trash. | Measures such as, walking and bike paths, picnic areas and nearby parking, incorporate the use permeable pavement and other surfaces to reduce stormwater runoff;  
- In subsequent construction of Open Space Development Measures, such as recreation fields, golf courses, and other landscaped areas, specific measures should be developed to control and treat irrigation and stormwater runoff that may contain pesticides and fertilizers.  
- The California Regional Water Quality Control Board should be consulted to help define appropriate mitigation measures.  
- Access roads, maintenance roads, and invert access roads should be constructed in accordance with accepted design standards, and in consultation with Los Angeles County, to ensure that maintenance activities are not unduly hampered, especially during emergencies and high channel flows. |
| Downtown Industrial Opportunity Area  | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | Short term high and potentially significant water quality impacts. Low to moderate impacts regarding vegetative debris and trash. | Measures such as, walking and bike paths, picnic areas and nearby parking, incorporate the use permeable pavement and other surfaces to reduce stormwater runoff;  
- In subsequent construction of Open Space Development Measures, such as recreation fields, golf courses, and other landscaped areas, specific measures should be developed to control and treat irrigation and stormwater runoff that may contain pesticides and fertilizers.  
- The California Regional Water Quality Control Board should be consulted to help define appropriate mitigation measures.  
- Access roads, maintenance roads, and invert access roads should be constructed in accordance with accepted design standards, and in consultation with Los Angeles County, to ensure that maintenance activities are not unduly hampered, especially during emergencies and high channel flows. |
Table ES-6
Summary Table

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>impacts regarding vegetative debris and trash</td>
</tr>
</tbody>
</table>

**Mineral Resources**

<table>
<thead>
<tr>
<th>Area</th>
<th>Potential Impacts</th>
<th>Level</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>River Channel Modifications</td>
<td>Minimal impacts on the availability of sand and gravel resources and gas extraction are expected.</td>
<td>Low</td>
<td>Implementing the LARRMP river channel modification, open space development, and reinvestment measures would comply with regulations pertaining to mineral resources and would not result in significant (or even any appreciable) adverse impacts on mineral resources. Therefore, no mitigation actions would be required. However, subsequent environmental reviews at the project level should be conducted to further characterize potential impacts on mineral resources, once specific designs are prepared with additional site details and boundaries and building or structure locations have been determined.</td>
</tr>
<tr>
<td>Open Space Developments</td>
<td>Impacts would be similar to those described under River Channel Modifications.</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Canoga Park Opportunity Area</td>
<td>Impacts would be similar to those described under River Channel Modifications.</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>River Glen Opportunity Area</td>
<td>Minimal impacts are expected on the availability of sand, gravel. No impacts on oil and gas resources are expected.</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Taylor Yard Opportunity Area</td>
<td>Minimal impacts are expected on the availability of sand, gravel. No impacts on oil and gas resources are expected.</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Chinatown-Cornfields Opportunity Area</td>
<td>Minimal impacts are expected on the availability of sand, gravel. No impacts on oil and gas resources are expected.</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Downtown Industrial Opportunity Area</td>
<td>Minimal impacts are expected on the availability of sand, gravel. No impacts on oil and gas resources are expected.</td>
<td>Low</td>
<td></td>
</tr>
</tbody>
</table>
Executive Summary

Table ES-6
Summary Table

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biological Resources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>River Channel Modifications</td>
<td>Most of the corridor is of extremely poor habitat quality, especially in areas where the river channel is completely lined with concrete. Low adverse impacts would occur in these areas. High value habitats to include wetlands occur in the Sepulveda Basin and in the area from Griffith Park down to Taylor Yard. Short term, high and potentially significant adverse impacts to high quality habitats would occur during construction (e.g., clearing of vegetation and excavation of soils). However, existing high value habitats such as wetlands would be enhanced or created, offsetting adverse impacts from construction. With proper design and mitigation measures, including coordination with appropriate agencies, adverse impacts can be reduced to less than significant levels.</td>
<td>Low to high and potentially significant where there is high-quality habitat</td>
</tr>
<tr>
<td>Open Space Developments</td>
<td>Potential adverse impacts are similar to those for the river channel modification measures.</td>
<td>Low to high and potentially significant where there is high-quality habitat</td>
</tr>
<tr>
<td>Canoga Park Opportunity Area</td>
<td>Potential adverse impacts are similar to those for the river channel modification measures.</td>
<td>Low to high and potentially significant</td>
</tr>
<tr>
<td>River Glen Opportunity Area</td>
<td>Potential adverse impacts are similar to those for the river channel modification measures.</td>
<td>Low to high and potentially significant</td>
</tr>
<tr>
<td>Taylor Yard Opportunity Area</td>
<td>Potential adverse impacts are similar to those for the river channel modification measures.</td>
<td>Low to high and potentially significant</td>
</tr>
</tbody>
</table>

As specific LARRMP implementation projects are identified and undertaken in the future, site-specific biological surveys would likely need to be conducted to better define biological resources, such as the presence of and potential impacts on wetlands, threatened and endangered species, and higher value habitats. Future project plans and designs would need to be coordinated with appropriate resource agencies and land managers to ensure to the greatest extent possible that high value habitats could be accounted for and their functions and values enhanced.

Potential mitigation measures and best management practices for future projects to reduce levels of potential adverse impacts on biological resources include the following:

- Incorporating existing vegetation into the design, where practicable, so as to avoid removing vegetation;
- Using stormwater best management practices, such as silt fences and hay bails, to help minimize siltation and erosion during storms;
- Using native vegetation in revegetation plans, along with developing invasive species control plans;
- Incorporating pockets of thicker vegetation into the designs to provide areas with higher habitat value;
- Conducting further investigations of the project sites, possibly including ground surveys, to account for any rare, threatened, or endangered species that may be present and, if any were found in the project area, coordinating with resource agencies to enhance the habitat for those species;
- Conducting surveys of Sepulveda Basin and the Glendale Narrows to identify wetlands or other high value habitats and, where wetlands exist, incorporating them into project designs and including features to enhance their function and values;
- Including kiosks with environmental education information.
## Table ES-6
### Summary Table

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinatown-Cornfields Opportunity Area</td>
<td>Low to moderate</td>
<td>on how to minimize adverse human/wildlife interaction; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Providing increased security patrols and lighting to improve public safety.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Adhering to the county’s <em>Los Angeles River Master Plan Landscaping Guidelines and Plant Palettes</em> (January 2004), which requires the use of native drought-tolerant plants that provide habitat for indigenous wildlife and avifauna;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Identifying and evaluating potential impacts on associated ecosystems from the development of ponded areas and especially from the periodic release of ponded water; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identifying seasonal restrictions to construction based on bird migration and breeding patterns and other wildlife issues.</td>
</tr>
<tr>
<td>Downtown Industrial Opportunity Area</td>
<td>Low to moderate</td>
<td></td>
</tr>
<tr>
<td>Parks or paseos and promenades creation may require land conversion.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canoga Park Opportunity Area</td>
<td>High and potentially significant if inconsistent with plans</td>
<td>Site-specific land use impact studies are required to assess the significance of land use impacts of LARRMP revitalization measures before they are implemented. The findings of these studies are required before appropriate mitigation actions are identified for these projects. Appropriate mitigation actions would vary depending on the type of land use impacted and the extent of the impact. Generally, the types of mitigation measures to be identified should include the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Avoiding land use impacts altogether by not taking a certain action or parts of an action and by developing plans that are consistent with community planning area land use plans;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Minimizing land use impacts by limiting the degree or magnitude of the action and its implementation;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Rectifying the land use impact by repairing, rehabilitating, or restoring the impacted land use;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reducing or eliminating the land use impact over time by preservation and maintenance operations;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Compensating for the land use impact by replacing or providing substitute resources.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location</th>
<th>Potential Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinatown-Cornfields Opportunity Area</td>
<td>The area currently has minimal habitat value. Most of it is highly urbanized/developed and there is minimal to no habitat in the river channel, except for algae growing in the wetted portions. Potential construction impacts are short term. Alternative CC-B would involve considerably more work in constructing the island, but no significant adverse impacts are expected from the additional work.</td>
</tr>
<tr>
<td>Downtown Industrial Opportunity Area</td>
<td>Potential adverse impacts are similar to those for the Chinatown-Cornfields Opportunity Area.</td>
</tr>
<tr>
<td>Canoga Park Opportunity Area</td>
<td>Parks, paseos and promenades may result in changes to approved land uses under Alternative CP-A. Alternative CP-B would result in high land use conversion impacts associated with river channel modifications from the proposed daylighting of Arroyo Calabasas</td>
</tr>
</tbody>
</table>

### Land Use

- **River Channel Modifications**: ROW expansion might result in inconsistencies with current approved land uses. River Channel modifications would impact the configuration of the river channel and could impact inspection and maintenance access roads. High and potentially significant if inconsistent with plans

- **Open Space Developments**: Open space developments could result in inconsistencies or incompatibilities with the adopted land use/density designations. Parks or paseos and promenades creation may require land conversion. High and potentially significant if inconsistent with plans

- **Canoga Park Opportunity Area**: Parks, paseos and promenades may result in changes to approved land uses under Alternative CP-A. Alternative CP-B would result in high land use conversion impacts associated with river channel modifications from the proposed daylighting of Arroyo Calabasas.
### Potential Impacts

<table>
<thead>
<tr>
<th>Area</th>
<th>Description</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>River Glen Opportunity Area</td>
<td>Expanding the confluence function, developing linear parks and paseos and promenades would result in land use conversion impacts. Expanding the roadway network ROW would result in a reduction in land uses approved for industrial and public facilities.</td>
<td>High and potentially significant if inconsistent with plans</td>
<td></td>
</tr>
<tr>
<td>Taylor Yard Opportunity Area</td>
<td>Potential land use impacts would be associated with open space development measures associated with the proposed linear and riverfront parks, paseos, and promenades, which are proposed on lands currently approved for other Industrial, Public Facilities, and Single-Family Residential uses.</td>
<td>High and potentially significant if inconsistent with plans</td>
<td></td>
</tr>
<tr>
<td>Chinatown-Cornfields Opportunity Area</td>
<td>Potential land use impacts would be associated with Reinvestment measures and open space developments, which are proposed on lands currently approved for other Industrial, Public Facilities, and Multifamily Residential uses.</td>
<td>High and potentially significant if inconsistent with plans</td>
<td></td>
</tr>
<tr>
<td>Downtown Industrial Opportunity Area</td>
<td>Potential land use impacts would be associated with Reinvestment measures and parks which would require reconfiguration and conversion of lands currently approved for Industrial use to Open Space.</td>
<td>High and potentially significant if inconsistent with plans</td>
<td></td>
</tr>
</tbody>
</table>

### Recreation

<table>
<thead>
<tr>
<th>Area</th>
<th>Description</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>River Channel Modifications</td>
<td>Implementation of the proposed river channel modifications could result in increased demand on existing recreational resources in the River Corridor and vicinity.</td>
<td>Moderate to High</td>
<td>Site-specific studies are required to assess the types and levels of any adverse recreational impacts that could result from LARRMP revitalization projects prior to their future implementation. These studies should address potential direct, indirect, and cumulative impacts. The findings of these studies are required prior to identifying appropriate mitigation actions for these future projects. Appropriate mitigation actions would vary, depending on the type of resource impacted and the extent of the impact. Generally mitigation measures will be identified to accomplish the following:</td>
</tr>
<tr>
<td>Open Space Developments</td>
<td>Impacts would be similar to those described under River Channel Modifications.</td>
<td>Moderate to High</td>
<td></td>
</tr>
<tr>
<td>Canoga Park Opportunity Area</td>
<td>The paseos and promenades measures and the reinvestment measures could result in increased recreation demand in the area.</td>
<td>Moderate to High</td>
<td></td>
</tr>
</tbody>
</table>
Table ES-6
Summary Table

<table>
<thead>
<tr>
<th>Area</th>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
</table>
| River Glen Opportunity Area                      | The paseos and promenades measures could result in increasing recreation demand in the area. | Moderate to High | • Avoid recreation resource impacts altogether by not taking a certain action or parts of an action;  
• Minimize recreation resource impacts by limiting the degree or magnitude of the action and its implementation;  
• Rectify the recreation resource impact by repairing, rehabilitating, or restoring the impacted land use (for example, providing on-site recreational amenities where impacts occur);  
• Reduce or eliminate the land use impact over time by preservation and maintenance operations;  
• Compensate for the recreation impact by replacing or providing substitute resources; and  
• Provide direct support to the Department of Recreation and Parks, such as land, equipment, and funding.  
• Review all future bikeway proposals for the River Corridor for consistency with guidelines specified for the development of Class I Bikeways;  
• Review all future landscaping proposals for the River Corridor for consistency with the Los Angeles River Master Plan Landscaping Guidelines and Plant Palettes;  
• Review all future signage proposals for the River Corridor for consistency with the Los Angeles River Master Plan Sign guidelines; and  
Review all future proposals for the River Corridor that involve enhancing access for disabled persons for consistency with guidelines developed through the Americans with Disabilities Act. |
| Taylor Yard Opportunity Area                      | The paseos and promenades measures could result in increasing recreation demand in the area. | Moderate to High |                                                                                                                                                                                                                                                                                                                                                           |
| Chinatown-Cornfields Opportunity Area             | The paseos and promenades measures and the reinvestment measures could result in increased recreation demand in the area. | Moderate to High |                                                                                                                                                                                                                                                                                                                                                           |
| Downtown Industrial Opportunity Area              | The paseos and promenades measures and the reinvestment measures could result in increased recreation demand in the area. | Moderate to High |                                                                                                                                                                                                                                                                                                                                                           |

Noise

<table>
<thead>
<tr>
<th>Area</th>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>General mitigation actions and BMPs to reduce noise levels associated with demolition and construction for LARRMP revitalization projects are as follows:</th>
</tr>
</thead>
<tbody>
<tr>
<td>River Channel Modifications</td>
<td>Short-term adverse impacts from construction are expected</td>
<td>Short term high and potentially significant</td>
<td></td>
</tr>
</tbody>
</table>
Table ES-6
Summary Table

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Space</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developments</td>
<td>Impact</td>
<td>Short term high and potentially significant</td>
</tr>
<tr>
<td></td>
<td>would be similar to those described under River Channel Modifications.</td>
<td>• Using enclosures or walls to surround noisy equipment;</td>
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<tr>
<td>Canoga Park</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunity Area</td>
<td>Impact</td>
<td>Short term high and potentially significant</td>
</tr>
<tr>
<td></td>
<td>would be similar to those described under River Channel Modifications.</td>
<td></td>
</tr>
<tr>
<td>River Glen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunity Area</td>
<td>Impact</td>
<td>Short term high and potentially significant</td>
</tr>
<tr>
<td></td>
<td>would be similar to those described under River Channel Modifications.</td>
<td></td>
</tr>
<tr>
<td>Taylor Yard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunity Area</td>
<td>Impact</td>
<td>Short term high and potentially significant</td>
</tr>
<tr>
<td></td>
<td>would be similar to those described under River Channel Modifications.</td>
<td></td>
</tr>
<tr>
<td>Chinatown-Cornfields Opportunity Area</td>
<td></td>
<td>Short term high and potentially significant</td>
</tr>
<tr>
<td></td>
<td>Impact</td>
<td>Short term high and potentially significant</td>
</tr>
<tr>
<td></td>
<td>would be similar to those described under River Channel Modifications.</td>
<td></td>
</tr>
<tr>
<td>Downtown Industrial Opportunity Area</td>
<td></td>
<td>Short term high and potentially significant</td>
</tr>
<tr>
<td></td>
<td>Impact</td>
<td>Short term high and potentially significant</td>
</tr>
<tr>
<td></td>
<td>would be similar to those described under River Channel Modifications.</td>
<td></td>
</tr>
</tbody>
</table>

Public Health and Safety

River Channel Modifications

Potential exposure of public and workers to hazardous materials during construction and operation, from materials used, or transported, or from accidental release of pre-existing material discovered on site. Construction equipment or activities could be the accidental ignition source for a fire in a high fire hazard zone. Low (assuming BMPs). But, high and potentially significant regarding increased risk of drowning and water-

Downtown Industrial Opportunity Area

Project-specific reviews would be required to assess potential impacts of any mapped HTRW sites listed in Table 3.11-1. The findings of these reviews would determine appropriate site-specific mitigation actions for these future projects. Mitigation measures could include removing any hazardous materials or wastes from contaminated land prior to construction, or adjusting project location or footprint to avoid hazards. Soils and water quality in the river should be tested at locations where possible contamination is suspected. The DTSC, DHS,
<table>
<thead>
<tr>
<th>Location</th>
<th>Potential Impacts</th>
<th>Level of Impact Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Space Developments</td>
<td>Increased risk for public to enter river channel during flood stages leading to injury or drowning.</td>
<td>Low (assuming BMPs). But, high and potentially significant regarding increased risk of drowning and water-related injuries.</td>
</tr>
<tr>
<td>Canoga Park Opportunity Area</td>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td>Construction BMPs should include: (a) immediately cleaning up all spills; (b) affixing lids to all containers; (c) compliance with state and federal occupational safety and health codes and regulations; (d) disposing of hazardous waste at a certified landfill; (e) removing all hazardous materials from project site after construction; (f) fencing around site to prevent unauthorized access; (g) maintaining equipment in proper working order; (h) complying with regulations regarding construction in methane or methane buffer zones; and (i) watering project sites to minimize dust. Mitigation for increased risk of accidental drowning and water-related injury include providing electronic signs, audible warnings, and gates to restrict access during flooding, and increasing police patrol units along the river (minimum of three additional) to help ensure safety of citizens.</td>
</tr>
<tr>
<td>River Glen Opportunity Area</td>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td>Low (assuming BMPs). But, high and potentially significant regarding increased risk of drowning and water-related injuries.</td>
</tr>
<tr>
<td>Taylor Yard Opportunity Area</td>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td>Low (assuming BMPs). But, high and potentially significant regarding increased risk of drowning and water-related injuries.</td>
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</table>
### Table ES-6
#### Summary Table

<table>
<thead>
<tr>
<th></th>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
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</thead>
<tbody>
<tr>
<td>Chinatown-Cornfields</td>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td>Low (assuming BMPs). But, high and potentially significant regarding increased risk of drowning and water-related injuries</td>
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<tr>
<td>Opportunity Area</td>
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<tr>
<td>Downtown Industrial</td>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td>Low (assuming BMPs). But, high and potentially significant regarding increased risk of drowning and water-related injuries</td>
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<tr>
<td>Opportunity Area</td>
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<tr>
<td>Transportation</td>
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<tr>
<td>River Channel Modifications</td>
<td>Potential adverse impacts include short-term impacts from construction activities, such as truck traffic and lane closures. Long-term adverse impacts include increased traffic and parking demand due to more visitors to the areas. Acquiring ROWs to develop park spaces or terracing along the river could impact arterial</td>
<td>Moderate to High and potentially significant</td>
<td>Traffic analyses should be prepared at the project level to evaluate the potential impacts associated with future LARRMP projects within the River Corridor and each of the five opportunity areas. Each traffic analysis should address the short-term effects within public street ROW, including temporary lane closures, driveway blockages, detours, and disruptions to the normal movement of traffic, transit patrons, and pedestrians, as well as the temporary loss of parking. The long-term</td>
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| streets and railroads. Potential long-term impacts from increased traffic and parking demand on the area associated with future LARRMP projects could be high, and potentially significant, especially if roads are closed or parking is lost to ROW acquisitions. If ROW acquisition for channel modifications or park development includes local streets, vehicle traffic could be adversely affected. | Moderate to High and potentially significant | Mitigation actions that can be applied during the construction phase of future projects to reduce potential short-term transportation impacts include the following:  
- For each construction site, a construction traffic management plan should be prepared and submitted to LADOT for review and approval before any construction work begins. This plan should include  
  - the designation of haul routes for construction-related trucks,  
  - the location of access to the construction site,  
  - any driveway turning movement restrictions,  
  - temporary traffic control devices or flag people,  
  - travel time restrictions for construction-related traffic to avoid peak travel periods on selected roadways, and  
  - designated staging and parking areas for workers and equipment;  
- Where construction would occur within a public street ROW, the following mitigation measures should also be applied:  
  - A traffic control plan should be prepared for each construction site and submitted to LADOT for |
| Some street parking may be lost due to the development of parks, paseos, and promenades. Parking demand will likely increase due to increased visitors to the area. | | |
| Impacts would be similar to those described under River Channel Modifications and Open Space Developments. For Alternative CP-B, traffic to the area is expected to increase, especially if a mixed-use village with a major retail and entertainment center is developed. | | |
| Impacts would be similar to those described under River Channel Modifications and Open Space Developments. For both Alternatives RG-A and RG-B, the river parkway on the river channel terrace of the east bank of the Verdugo Wash would be visible from the I-5 freeway, possibly affecting traffic. | | |
| Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | | |
### Table ES-6
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<thead>
<tr>
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</table>
| Chinatown-Cornfields Opportunity Area | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. For both Alternatives CC-A and CC-B, Metrolink and Union Pacific rail lines along San Fernando Road could be adversely impacted by ROW acquisition. | Moderate to High and potentially significant | **Review and approval** prior to the start of any construction work. **This plan should include the location of any lane closures, restricted hours during which lane closures would not be allowed, local traffic detours (where reasonable alternate routes exist), protective devices and traffic controls (such as barricades, cones, flag people, lights, warning beacons, temporary left-turn restrictions, temporary traffic signals, warning signs), access to abutting properties, and provisions to maintain emergency access through construction work areas,**  
- **Available street space should be fully used to minimize lane reductions on affected streets, including eliminating on-street parking where necessary,**  
- **Left-turn restrictions should be implemented as appropriate on restriped street segments to facilitate the movement of through traffic,**  
- **Travel lanes should be eliminated only when absolutely necessary,**  
- **Alternative pedestrian and bicycle access routes should be provided where sidewalks, crosswalks, or bike lanes would be affected,**  
- **Advance notice should be provided to any affected residents and businesses and property owners in the vicinity of each construction site, and, where existing property access would be reduced, alternative means of access should be identified,**  
- **Emergency service providers (police, fire, ambulance, and paramedic services) should be notified of any lane closures, construction hours, or changes to local access and to identify alternative routes where appropriate, and Public transit providers (MTA, LADOT Commuter Express, and Glendale Bee Line) should be notified of any lane closures and construction hours, and temporary bus** |
| Downtown Industrial Opportunity Area   | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. With Alternative DI-B, additional ROW on the east side of the river could be acquired for terracing and parks, adversely affecting traffic. | Moderate to High and potentially significant | **Review and approval** prior to the start of any construction work. **This plan should include the location of any lane closures, restricted hours during which lane closures would not be allowed, local traffic detours (where reasonable alternate routes exist), protective devices and traffic controls (such as barricades, cones, flag people, lights, warning beacons, temporary left-turn restrictions, temporary traffic signals, warning signs), access to abutting properties, and provisions to maintain emergency access through construction work areas,**  
- **Available street space should be fully used to minimize lane reductions on affected streets, including eliminating on-street parking where necessary,**  
- **Left-turn restrictions should be implemented as appropriate on restriped street segments to facilitate the movement of through traffic,**  
- **Travel lanes should be eliminated only when absolutely necessary,**  
- **Alternative pedestrian and bicycle access routes should be provided where sidewalks, crosswalks, or bike lanes would be affected,**  
- **Advance notice should be provided to any affected residents and businesses and property owners in the vicinity of each construction site, and, where existing property access would be reduced, alternative means of access should be identified,**  
- **Emergency service providers (police, fire, ambulance, and paramedic services) should be notified of any lane closures, construction hours, or changes to local access and to identify alternative routes where appropriate, and Public transit providers (MTA, LADOT Commuter Express, and Glendale Bee Line) should be notified of any lane closures and construction hours, and temporary bus** |
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<td>stops should be established within a reasonable walking distance of any displaced bus stops.</td>
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<td>• Where future LARRMP projects involve rail crossings and proximity to railroad lines, the following mitigation measures should be applied:</td>
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<td>- Construct where practicable, grade separation of major thoroughfares,</td>
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<td>- Make safety improvements to existing at-grade highway-rail crossings where there are expected traffic increases, and</td>
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<td>- Include appropriate fencing to limit access to railroad right-of-way.</td>
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<td></td>
<td>Low to High</td>
<td>The temporary movement of segments of transmission lines, telecommunications lines, and pipelines should be done in a manner to limit any interruptions in service to the time needed to disconnect form the current lines and switch to the temporary lines established to provide service during the move or reengineering of the main lines.</td>
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Utilities and Infrastructure

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<thead>
<tr>
<th>Utility and Infrastructure</th>
<th>Level of Impact</th>
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<tr>
<td>River Channel Modifications</td>
<td>Both the near-term and long-term changes proposed for the River Corridor would involve widening the current concrete channel to varying degrees and modifying the areas immediately adjacent to the banks along both sides. The construction activities would impact the utilities that are immediately adjacent to the River Corridor and those that cross the corridor. Impacts that may result from the open-space developments would also be mostly short-term. These impacts are expected to be related to clearing construction. Some permanent movement of segments of existing utility and infrastructure elements would be required (e.g., see discussion under Chinatown-Cornfields Opportunity Area). The two types of river channel modifications as well as the open space development measures would not result in long-term impact to</td>
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<tr>
<td>Open Space Developments</td>
<td>Low to High</td>
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<td>Potential Impacts</td>
<td>Level of Impact</td>
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<td>availability of utilities, but would result in short-term construction impacts and movement of segments of existing utility and infrastructure elements. For the river channel modification, the impacts are expected to be higher for those measures where the river-flow velocity would be reduced due to the greater widths of the channel. The greater width of the channel modifications would require more of the utilities along the sides of the channel to be moved. In addition, the bridges across the river which often carry utility lines are more likely to have to be lengthened or replaced. The widening of the river channel and changes to the banks would require modification of existing bridges, requiring temporary movement of pipeline segments that use the bridges for crossing the River Corridor. Segments of the electric transmission lines that are immediately adjacent to the river banks would have to be moved further away from the centerline of the river. These segments may be end up closer to existing residential and commercial building along the River Corridor. Segments of the electric transmission lines that are in the immediate area of parks and recreation areas may have to moved to allow for specific design elements (e.g., playing fields). These segments may be end up closer to existing residential and commercial building near the parks and recreation facilities. The widening of the river channel and changes to the banks would require modification of existing bridges, requiring temporary movement of pipeline segments that use the bridges for crossing the River Corridor.</td>
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Summary Table

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<td>Segments of any fiber optic cables along either bank of the river might have to be moved further away from the centerline of the river. Where they cross the Los Angeles River at bridges, the modification of existing bridges would require temporary movement of segments of these cables. Some of the stormwater collection paths, drains, and underground pipelines that exist in the river channel area would be permanently changed. Most would be temporarily impacted by construction. Some permanent changes to stormwater collection points, pipelines and pathways are expected where the open-space development measures involve changes in slope and grading. Most impacts would be temporary due to construction. Overall, the handling of stormwater would be improved by the implementation of revitalization measures.</td>
<td>Low to High</td>
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<tr>
<td>Canoga Park Opportunity Area</td>
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<tr>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td>Low to High</td>
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<tr>
<td>River Glen Opportunity Area</td>
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<tr>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td>Low to High</td>
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<tr>
<td>Taylor Yard Opportunity Area</td>
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<tr>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td>Low to High</td>
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<tr>
<td>Chinatown-Cornfields Opportunity Area</td>
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<tr>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td>Low to High</td>
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| Downtown Industrial Opportunity Area                                             | Low to High     | Site-specific studies are required to assess the significance of any adverse socioeconomic impacts that could result from implementing future LARRMP revitalization projects. These studies should address potential direct, indirect, and cumulative impacts. The findings of these studies are required prior to identifying appropriate mitigation actions for these future projects. Appropriate mitigation actions will vary depending on the type of resource impacted and the extent of the impact. Per the Draft Los Angeles CEQA Thresholds Guide, population and housing growth are not considered significant effects on the environment. Secondary or indirect impacts, such as increased traffic or noise, may be significant and may be physical changes caused by population and housing growth. Thus, mitigating these secondary impacts may also reduce potential adverse impacts from population and housing growth. Socioeconomic impacts requiring mitigation would be associated with population and housing displacement and need for new public services. Generally, the types of socioeconomic mitigation measures to be identified include the following:  
  - Avoiding socioeconomic impacts altogether by not taking a certain action or parts of an action;  
  - Minimizing socioeconomic impacts by limiting the degree or magnitude of the action and its implementation;  
  - Rectifying the socioeconomic impact by repairing, rehabilitating, or restoring lost amenities;  
  - Reducing or eliminating the socioeconomic impact over time by preservation and maintenance operations;  
  - Compensating for the socioeconomic impact by replacing or providing substitute resources;  
  - Exceeding the statutory requirements for relocation. |
<p>| Impacts would be similar to those described under River Channel Modifications and Open Space Developments. |                |                                                                                                             |
| River Channel Modifications                                                       | High and potentially significant impact associated with lost jobs and increased demand for public services |                                                                                                             |
| Implementing park development measures could displace existing commercial and industrial businesses and result in lost jobs. |                |                                                                                                             |
| Open Space Developments                                                           | High and potentially significant impact associated with lost jobs and increased demand for public services |                                                                                                             |
| Canoga Park Opportunity Area                                                      | High and potentially significant impact associated with lost jobs and increased demand for public services |                                                                                                             |
| Acquisition of additional Channel ROW and creation of the proposed riverfront park could result in displacing commercial and industrial development and public facilities. |                |                                                                                                             |
| Reinvestment measures could result in additional needs for emergency medical services, police, and fire protection. If residential development is included in mixed-use design, then there could be additional impacts on schools and library public services. |                |                                                                                                             |</p>
<table>
<thead>
<tr>
<th>Opportunity Area</th>
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<tbody>
<tr>
<td>River Glen</td>
<td>Expanding the confluence function could result in displacing industrial land uses. Linear park, paseos, and promenades development could increase future population and employment.</td>
<td>High and potentially significant impact associated with lost jobs and increased demand for public services.</td>
<td>• Increasing the number of housing units affordable to lower income households.</td>
</tr>
<tr>
<td>Taylor Yard</td>
<td>Parks, paseos, and promenade developments could require displacement of industrial, public facilities, and single family residential uses and could induce demand for new or altered government services.</td>
<td>High and potentially significant impact associated with lost jobs and increased demand for public services.</td>
<td></td>
</tr>
<tr>
<td>Chinatown-Cornfields</td>
<td>Parks, paseos, and promenades developments and reinvestment measures would result in displacing industrial, public facilities, and multifamily residential development, and would induce demand for new or altered government services.</td>
<td>High and potentially significant impact associated with lost jobs, displacement of families, and increased demand for public services.</td>
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</tr>
<tr>
<td>Downtown Industrial</td>
<td>Park, paseos, paseo-promenade developments, and reinvestment measures, would require displacing and relocating the Union Pacific railroad and lands currently in industrial use and would induce demand for new or altered government services.</td>
<td>High and potentially significant impact associated with lost jobs, displacement of families, and increased demand for public services.</td>
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<td>of families, and increased demand for public services.</td>
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<tr>
<td><strong>Environmental Justice</strong></td>
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<tr>
<td>River Channel Modifications</td>
<td>Noise and fugitive dust emissions from construction or vehicle maneuver would have adverse noise and air quality impacts on minority low-income populations.</td>
<td>Short term high and potentially significant noise and air quality impacts during construction. As future revitalization measures are considered for implementation, evaluation of their potential impacts on affordable housing units, minority populations, and low-income populations in the River Corridor and vicinity will be required and appropriate mitigation identified, where applicable. Potential adverse impacts requiring mitigation could include displacement of affordable housing units and minority or low-income residences. Noise from construction project sites or vehicle maneuver areas, and construction noise impacts on minority and low-income populations (see Section 4.10, Noise). Noise from construction would last only for the construction period. Construction would be limited to daytime hours. Air quality impacts from fugitive dust emissions could also have a short-term low to moderate impact on minority or low-income residences; however, these potential impacts would be reduced to less than significant levels by implementing best management practices to control dust, as described in Section 4.3.</td>
</tr>
<tr>
<td>Open Space Developments</td>
<td>Impacts would be similar to those described under River Channel Modifications.</td>
<td></td>
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<tr>
<td>Canoga Park Opportunity Area</td>
<td>Impacts would be similar to those described under River Channel Modifications.</td>
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<tr>
<td>River Glen Opportunity Area</td>
<td>Impacts would be similar to those described under River Channel Modifications.</td>
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<td><strong>Taylor Yard Opportunity Area</strong></td>
<td>Impacts would be similar to those described under River Channel Modifications.</td>
<td>Short term high and potentially significant noise and air quality impacts during construction</td>
</tr>
<tr>
<td><strong>Chinatown-Cornfields Opportunity Area</strong></td>
<td>Impacts would be similar to those described under River Channel Modifications. Displacement of low-income families may also accompany reinvestment measures.</td>
<td>Short term high and potentially significant noise and air quality impacts during construction, and with displacement of residences</td>
</tr>
<tr>
<td><strong>Downtown Industrial Opportunity Area</strong></td>
<td>Park, paseos, paseo-promenade developments, and reinvestment measures, would require displacing and relocating the Union Pacific rail yard and lands currently in industrial use and would induce demand for new or altered government services. Displacement of low-income families may also accompany reinvestment measures.</td>
<td>Short term high and potentially significant noise and air quality impacts during construction, and with displacement of residences</td>
</tr>
</tbody>
</table>
Potential Impacts | Level of Impact | Mitigation Measures/Best Management Practices
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River Channel Modifications | There are no recorded archaeological sites in the current river channel. Because of the past disturbance it is unlikely that intact archaeological resources would be present. However, floods can encapsulate cultural remains in deep layers and some intact prehistoric or historic deposits could also be present, especially below the edges of the river channels. The likelihood of encountering historic archaeological deposits would be higher in the reach of the river from the Fletcher Street Bridge through downtown because of the early transportation and industrial development in the immediate River Corridor. Because of past disturbance, traditional cultural properties are not expected. If prehistoric or ethnohistoric archaeological sites or burials are encountered, these would likely be important to contemporary Native American communities. Both types of channel modification measures would require ground disturbance. Ground disturbance could impact archaeological resources, if present, by altering the spatial relationships of artifacts and features and thus reduce research potential. Sometimes the exposure of archaeological sites can lead to damage from vandalism or erosion. River channel modifications that seek to reduce river flow velocity would require more ground disturbance than modifications that do not. This disturbance would be related to off-channel attenuation or in the construction of underground linear culverts parallel to and adjacent to the river. | Further project-level investigations, assessments, and evaluations to identify, evaluate and determine levels of effects on cultural resources are required prior to implementing LARRMP revitalization measures. When ripe for analysis, the Corps and the City may choose to enter into a programmatic agreement with the Office of Historic Preservation and others to satisfy the requirements of Section 106 of the National Historic Preservation Act (NHPA) for all or portions of the LARRMP. Because many of the LARRMP revitalization measures and cultural resource impact issues are common to the whole project, a programmatic agreement can set standards and expectations for consistently addressing cultural resources for the plan implementation and avoiding redundant consultations. Alternatively, the Corps and the City may choose to address cultural resources on a project-by-project basis because of the long implementation time frame, project funding or phasing and differences between specific project sites. For example, there would be differences between the potential types of historical archaeological sites expected in the Downtown Industrial Opportunity Area and the Canoga Park Opportunity Area. As specific LARRMP implementation projects are identified and undertaken in the future, additional inventory and site- and resource-specific surveys should be conducted to better define resources present and the potential impacts. Future project plans and designs should be coordinated with planners so that potential issues with cultural and paleontological resources can be avoided, if possible. Potential mitigation, best management practices, and investigation protocols that could be employed with future projects to reduce levels of potential adverse impacts include the following:

*Regarding Cultural Resources:*
- Define the area of potential effects for cultural resources based on the proposed action in consultation with the OHP.
- Update the cultural resource record search and resolve any data discrepancies.
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<td>Both types of channel modification measures would have the potential to impact the integrity of historic buildings and structures through direct alteration, removal or alterations to setting. River channel modifications that seek to reduce river flow velocity would have more of a potential to impact historic buildings and structures, because of acquisition and modification of adjacent properties. Indirect effects could include stimulation of demolition of older unprotected structures, if property values rise. Most of the River Corridor and in particular the downtown area include subsurface geologic units that could yield scientifically important vertebrate paleontological resources under shallow Holocene alluvium. The potential for encountering paleontological resources would be greatest where excavations are most extensive and deep such as for underground linear culverts. Negative impacts could occur if the resources are inadvertently destroyed without being studied during construction or if subjected to unauthorized collection or damage due to exposure and erosion.</td>
<td></td>
<td>• Conduct an in-depth review of cultural resource records and reports, local histories, ethnic neighborhood development, Sanborn Insurance and other historic maps and other literature relevant to the project area.</td>
</tr>
<tr>
<td>Open Space Developments Prehistoric and historic archaeological sites have been found and are possible throughout the River Corridor. Sensitivity for historic archaeological resources is probably higher than prehistoric or ethnohistoric sites, especially in the old industrial and railyard areas. Historic buildings and structures are present, including resources that are eligible or listed on the National Register of Historic Places (NRHP) and California Register of Historic Resources (CRHR) and are City of Los Angeles Cultural-</td>
<td></td>
<td>• Contact the California Native American Heritage Commission for a Sacred Lands File (SLF) search to obtain information on any known or potential sacred sites or traditional cultural properties at the specific project sites;</td>
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<td>• Obtain a list of current tribal contacts in the project vicinity who may have additional cultural resource information and conduct consultation on Native American cultural concerns;</td>
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<td>• Determine the need, appropriate level of effort, and methods for effective archaeological and historic built environment surveys;</td>
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<td>• Inventory and evaluate resources for eligibility for the NRHP and CRHR, which may require test excavations or additional archival research;</td>
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<td>• Prepare a professional report detailing the findings and recommendations of the records search and inventories. Submit all findings to the OHP and file all reports and site forms with the South Central Coastal Information Center;</td>
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<td>• By applying the criteria of adverse effect and the City of Los Angeles CEQA thresholds, determine impacts on known or anticipated cultural resources resulting from the proposed action and develop specific mitigation measures with the concurrence of the OHP;</td>
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<td>• Avoid impacting resources through project redesign or modification when significant cultural resources are discovered during the course of project planning. Avoidance is defined in §15370 of the CEQA Guidelines;</td>
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<td>• Prepare a discovery plan outlining in detail procedures for</td>
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<td>Historical Monuments. Archaeological sites or burials that may be important to</td>
<td>Moderate to high and</td>
<td>discovering unanticipated buried resources;</td>
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<tr>
<td>contemporary Native American communities could be encountered. All of the</td>
<td>potentially significant</td>
<td>• Include provisions for discovery of Native American human remains or unmarked cemeteries in mitigation plans;</td>
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<tr>
<td>proposed measures include ground disturbing activities such as excavation and</td>
<td></td>
<td>• Follow Health and Safety Code §7050.5, Public Resources Code §5097.98 and See §15084.5 (d) of the CEQA Guidelines procedures in the event of an</td>
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<td>grading that could affect the integrity of archaeological sites, if present.</td>
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<td>accidental discovery of any human remains in a location other than a dedicated cemetery;</td>
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<td>The proposed open space measures would have the potential to impact the integrity</td>
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<td>• Conduct data recovery excavations of archaeological sites that cannot be avoided or are discovered during construction based on an approved</td>
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<td>of historic buildings and structures through direct alteration, removal or changes</td>
<td></td>
<td>research design appropriate to the anticipated site type.</td>
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<td>in setting. Alterations could be proposed for historic structures such as bridges</td>
<td></td>
<td>• If the buried resources are anticipated, monitor all excavations.</td>
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<tr>
<td>or channel infrastructure. The open space development could require the removal</td>
<td></td>
<td>• Protect exposed archaeological sites from vandalism and erosion. Consider covering and encapsulating archaeological sites under sterile fill</td>
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<td>of historic buildings and features. New developments such as pedestrian bridges</td>
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<td>after recording.</td>
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<tr>
<td>and paseos may impact the setting of older structures. Indirect impacts of the</td>
<td></td>
<td>• Prepare a preservation plan for historic buildings and structures to ensure that new construction is compatible with historic resources and</td>
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<td>revitalization could include the removal of older unprotected structures due to</td>
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<td>that alterations are consistent with the appropriate Secretary of Interior Standard.</td>
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<td>gentrification. There is a potential for scientifically important vertebrate</td>
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<td>• Encourage adaptive reuse through zoning and reinvestment incentives.</td>
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<tr>
<td>paleontological resources to be present. Negative impacts could occur if the</td>
<td></td>
<td>• If preservation in place is not possible or if major modifications are needed, undertake documentation according to the requirements of the</td>
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<td>resources are inadvertently destroyed without being studied during construction or</td>
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<td>Historic American Building Survey (HABS) or the Historic American Engineering Record (HAER) and ensure that copies are made available locally.</td>
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<td>if subjected to unauthorized collection or damage due to exposure and erosion.</td>
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<td>Require that local preservation organizations and historical societies have access to record the resource and/or remove significant historic</td>
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<tr>
<td>Canoga Park Opportunity Area</td>
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<td>elements for archives.</td>
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<tr>
<td>Impacts for Alternatives CP-A and CP-B generally would be similar to those</td>
<td>Moderate to high and</td>
<td>Regarding Paleontological Resources:</td>
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<tr>
<td>described under River Channel Modifications and Open Space Developments.</td>
<td>potentially significant</td>
<td>• Conduct additional archival and field research to determine site specific sensitivity for impacting paleontological</td>
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<tr>
<td>Alternative CP-A would require property acquisition, removal and alteration of</td>
<td></td>
<td>resources.</td>
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<tr>
<td>buildings and structures, shallow and deep excavation, and new construction.</td>
<td></td>
<td>• Prepare additional archival and field research to determine site specific sensitivity for impacting paleontological resources.</td>
</tr>
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<td></td>
<td></td>
<td>• Prepare additional archival and field research to determine site specific sensitivity for impacting paleontological resources.</td>
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|                  | These actions could impact archaeological sites, historic buildings and structures and paleontological resources if present at the project site. The acquisition of rights of way and property for revitalization measures and subsequent site preparation would require removing existing structures, grading and excavation. New construction that is proposed may change the physical setting of historic buildings and structures. Alterations are proposed for channel infrastructure that may also be historic. If the proposed actions alter the characteristics of historic properties that qualify them for inclusion on the NRHP or the CRHR, there could be an adverse effect. Impacts associated with Alternative CP-B, would be similar to Alternative CP-A, except a greater amount of land acquisition, park development, ground disturbance and modification of the channels is proposed and would increase the potential for impacting cultural resources. | Moderate to high and potentially significant | • If appropriate, conduct limited exploratory sampling to determine resource potential.  
• Revise the proposed project to avoid excavation or grading in areas with known or potential surface exposures of fossils, or within rock units with a high potential for paleontological resources.  
• Retain a qualified paleontologist to monitor for scientifically important fossil remains. Divert grading efforts in the area of exposed paleontological resources to allow evaluation and, if necessary, salvage. Ensure scientific specimens are curated at a public, nonprofit educational institution, such as the Los Angeles County Museum of Natural History.  
• If found, provide erosion protection (e.g., retaining walls, drainage channels) to protect surface resources and restrict or prevent access to sensitive resource areas on site  
• Protect subsurface fossils in place, through covering with appropriate soil materials. |
| River Glen Opportunity Area | Impacts for Alternative RG-A generally would be similar to those described above for River Channel Modifications, Open Space Developments, and for Alternative CP-A. Impacts with Alternative RG-B would be similar to RG-A, except a greater amount of land acquisition, park development, ground disturbance and modification of the channels would be proposed and would increase the potential for impacting cultural resources. The proposed increased level of reinvestment measures, emphasis on increased density, and commercial construction may have the indirect effect of prompting demolition of older resources. | Moderate to high and potentially significant | • If appropriate, conduct limited exploratory sampling to determine resource potential.  
• Revise the proposed project to avoid excavation or grading in areas with known or potential surface exposures of fossils, or within rock units with a high potential for paleontological resources.  
• Retain a qualified paleontologist to monitor for scientifically important fossil remains. Divert grading efforts in the area of exposed paleontological resources to allow evaluation and, if necessary, salvage. Ensure scientific specimens are curated at a public, nonprofit educational institution, such as the Los Angeles County Museum of Natural History.  
• If found, provide erosion protection (e.g., retaining walls, drainage channels) to protect surface resources and restrict or prevent access to sensitive resource areas on site  
• Protect subsurface fossils in place, through covering with appropriate soil materials. |
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<td>structures and affecting the setting of historic buildings and structures.</td>
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<tr>
<td>Taylor Yard Opportunity Area</td>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments. The opportunity area includes three recorded archaeological sites and three buildings or structures eligible for the CRHR, two eligible for the NRHP and four Los Angeles Historic-Cultural Monuments. Further inventory of buildings and structures would likely result in the recording of additional resources. Because of the early development in the opportunity area, historic archaeological resources are likely to be present. The opportunity area also includes formations that have a high sensitivity to contain fossil resources. The configuration of proposed revitalization measures would require property acquisition, removal and alteration of buildings and structures, shallow and deep excavation, and new construction. These actions could impact archaeological sites, historic buildings and structures and paleontological resources if present at the project site. The acquisition of rights of way and property for revitalization measures and subsequent site preparation would require removing existing structures, grading and excavation. Affected buildings and structures would need to be evaluated to determine whether any historic resources would be removed or altered. New construction that is proposed may change the physical setting of historic buildings and structures. Alterations are proposed for channel infrastructure that may also be historic and near the historic Fletcher</td>
<td>Moderate to high and potentially significant</td>
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Summary Table

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<td>Street Bridge. If the proposed actions alter the characteristics of historic properties that qualify them for inclusion on the NRHP or the CRHR, there could be an adverse effect. Indirect adverse impacts could include the removal of older structures and alteration of historic neighborhoods due to increased density and land values. Adjacent neighborhoods that include older buildings and housing, and ethnically-concentrated communities may be adversely impacted by revitalization development.</td>
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<tr>
<td>Chinatown-Cornfields Opportunity Area</td>
<td></td>
<td>Moderate to high and potentially significant</td>
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<tr>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments. For both Alternatives CC-A and CC-B, the opportunity area includes many of the earliest developed areas in Los Angeles. Recorded resources range from the early 19th century through the late 20th century. Many cultural resource studies have been conducted. Nine historic archaeological sites have been recorded, including a single large site documenting the River Station which was the first transcontinental railroad station in Los Angeles. There are 17 properties eligible for the CRHR and the NRHP and two properties are formally listed on the NRHP. There are five state historic landmarks and 16 designated City of Los Angeles Historic-Cultural Monuments. Because of the early development in the opportunity area, historic archaeological resources are likely to be present. The opportunity area also includes formations that have a high sensitivity to contain fossil resources. The configuration of revitalization measures could impact archaeological sites,</td>
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<td>historic buildings, bridges, and other structures, and paleontological resources if present at project sites. The acquisition of rights of way and property for revitalization measures and subsequent site preparation would require removing existing structures, grading and excavation. Affected buildings and structures would need to be evaluated to determine whether any historic resources would be removed or altered. New construction that is proposed may change the physical setting of historic buildings and structures including three historic bridges (Buena Vista Viaduct, Main Street Bridge, and Macy Street Bridge). Alterations are proposed for channel infrastructure that may also be historic. If the proposed actions alter the characteristics of historic properties that qualify them for inclusion on the NRHP or the CRHR, there could be an adverse effect. Indirect adverse impacts could include the removal of older structures and historic neighborhoods due to changes in land use and property values. Alternative CC-B involves constructing a channel diversion to allow creation of a small island. This alternative involves a greater amount of land acquisition, park development, ground disturbance and modification of the channel, which would increase the potential for impacting cultural resources. The proposed increased level of reinvestment measures and emphasis on redevelopment may have the indirect effect of prompting demolition of older structures and affecting the setting of historic buildings and structures. Some of the Department of Water and Power buildings</td>
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Table ES-6  
Summary Table

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<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
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<tr>
<td>within the opportunity area are historic and may be impacted by redevelopment proposals.</td>
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<tr>
<td>Downtown Industrial Opportunity Area</td>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments. For both Alternatives DI-A and DI-B, the opportunity area includes some of the earliest industrialized and residential areas of the city and includes the former site of the Le Grande Railway Station. Some of the proposed measures would extend into the community of Boyle Heights which is rich in historic buildings. Over 20 cultural resource studies have been conducted and nine historic archaeological sites have been recorded. There are 25 properties eligible for the CRHR and the NRHP. Two properties are designated as City of Los Angeles Historic-Cultural Monuments. Because of the early development in the opportunity area and information from previous investigations, historic archaeological resources are likely to be present. The opportunity area also includes formations that have a high sensitivity to contain fossil resources. Both alternative configurations of proposed revitalization measures would require property acquisition, removal and alteration of buildings and structures, shallow and deep excavation, and new construction. These actions could impact archaeological sites, historic buildings and structures and paleontological resources if present at the project site. The acquisition of rights of way and property for revitalization measures and subsequent site preparation would require removing existing structures, grading and excavation. Affected</td>
<td>Moderate to high and potentially significant</td>
</tr>
</tbody>
</table>
## Potential Impacts

| Buildings and structures would need to be evaluated to determine whether any historic resources would be removed or altered. New construction that is proposed may change the physical setting of historic buildings and structures. Alterations are proposed for channel infrastructure that may also be historic. If the proposed actions alter the characteristics of historic properties, historic bridges, and other structures that qualify them for inclusion on the NRHP or the CRHR, there could be an adverse effect. Indirect adverse impacts could include the removal of older structures and alteration of historic neighborhoods due to changes in land use and property values. Alternative DI-B involves developing a larger linear park on the eastern banks of the river through rail realignment. Also, this includes a greater amount of land acquisition, park development, ground disturbance and modification to the channel, which would increase the potential for adversely impacting cultural resources. The increased level of reinvestment measures and emphasis on redevelopment may have the indirect effect of prompting demolition of older structures and affecting the setting of historic buildings and structures. |
| Level of Impact |
| Mitigation Measures/Best Management Practices |

## Aesthetic Resources

| River Channel Modifications | During construction of river channel modifications, employee and construction vehicles would likely use local streets and highways. Also, it is assumed bright spotlights would be used at times to illuminate construction activities at night. As a result, there would be direct, adverse, short-term impacts |
| Low to Moderate |
| Although implementation of the LARRMP measures would comply with regulations pertaining to aesthetic resources, employing best management practices during construction and operations would aid in minimizing potential adverse impacts on aesthetic resources. For example, construction activities could be scheduled to minimize the use of spotlights used at night to illuminate project sites. Also, construction traffic could be timed to reduce the amount of congestion |
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<tr>
<td>from light or glare, because nighttime lighting would increase. Also there would be direct, adverse, short-term impacts on the existing visual character or quality of the site and its surroundings, because the traffic during construction in the vicinity of project sites would increase. Construction traffic and work would be visible in the vicinity of project sites.</td>
<td>Low to Moderate</td>
<td>and activities visible in the vicinity of project sites. Further, shrouds could be used to block stray light emanating from new light sources that are a part of new projects. These, and other best management practices, should be further developed once specific site designs are completed for future projects.</td>
</tr>
<tr>
<td>Open Space Developments</td>
<td>Low to Moderate</td>
<td></td>
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<tr>
<td>Open space development measures would likely involve lighting for nighttime activities at, for example, parks or for safety purposes along, for example, pathways. In places where open space development measures replace existing structures, it is assumed the new lighting would be similar to the previous lighting, resulting in no new impacts from light or glare. In places where open space development measures add new lighting, there would be direct, adverse, long-term impacts from light or glare. The new lighting would diminish the natural darkness at night in the local area.</td>
<td></td>
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<tr>
<td>Canoga Park Opportunity Area</td>
<td>Low to Moderate</td>
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<tr>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td></td>
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<tr>
<td>River Glen Opportunity Area</td>
<td>Low to Moderate</td>
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<tr>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td></td>
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<tr>
<td>Taylor Yard Opportunity Area</td>
<td>Low to Moderate</td>
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<tr>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
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<tr>
<td>Chinatown-Cornfields Opportunity Area</td>
<td>Low to Moderate</td>
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<tr>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
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## Table ES-6
### Summary Table

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<tr>
<td>Downtown Industrial Opportunity Area</td>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td>Low to Moderate</td>
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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

This document is a combined Programmatic Environmental Impact Report (PEIR) and Programmatic Environmental Impact Statement (PEIS) for the Los Angeles River Revitalization Master Plan (LARRMP) (City of Los Angeles 2006b). This combined PEIR/PEIS document addresses potential environmental impacts of implementing the LARRMP in the foreseeable future. Revitalization measures for the Los Angeles River would begin to be implemented within five years of the anticipated adoption of the LARRMP in spring 2007 (near term) and would continue for many years (long term).

The City of Los Angeles, Department of Public Works (LADPW) Bureau of Engineering (BOE) is the California Environmental Quality Act (CEQA) lead agency, and the US Army Corps of Engineers, Los Angeles District (Corps) is the National Environmental Policy Act (NEPA) lead agency for this combined PEIR/PEIS. These two co-lead agencies, as well as the Los Angeles County Department of Public Works (LACDPW), historically have been responsible for overseeing the various functional aspects of the Los Angeles River. They have been engaged, both separately and cooperatively, in ongoing efforts to maintain and improve water quality, to restore natural ecosystem functions of the river, and to enhance quality of life along the river.

The City of Los Angeles, in partnership with the Corps, various organizations, and stakeholders, has prepared this Final PEIR/PEIS for the revitalization of the Los Angeles River. This Final PEIR/PEIS contains the information contained in the Draft PEIR/PEIS (State Clearinghouse No. 2006041050), comments received during the Draft PEIR/PEIS circulation period, and our responses to these comments. Changes to the text of the draft were made in response to comments received. Where additions have been made to the text of the Draft PEIR/PEIS, these changes are noted as underlined text in this document. Deletions made in the text have not been noted.

The Final PEIR/PEIS presents the environmental and social effects of the LARRMP, which covers 32 miles of the Los Angeles River within the City of Los Angeles. As this is a programmatic or a concept level EIR/EIS, its purpose is to evaluate all future actions related to the LARRMP within the project area to enable the consideration of broad policy alternatives and program-wide evaluations for actions that may be taken in
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the future. Subsequent activities in the program must be examined in the light of the Final PEIR/PEIS to determine the nature of the additional environmental documentation that must be prepared.

The Los Angeles City Council will use this Final PEIR/PEIS to adopt policy recommendations to enable the future implementation of the LARRMP.

The Corps has reviewed and participated in the development of this Final PEIR/PEIS. The Corps has determined that no federal action will result in conjunction with this document at this time. The Corps is currently developing a Los Angeles River Ecosystem Restoration Feasibility Study in partnership with the City of Los Angeles and will prepare an Environmental Impact Statement/Environmental Impact Report for the Feasibility Study for site-specific project areas identified in the Feasibility Study. The Corps will utilize this Final PEIR/PEIS document as needed to assist in development of the ongoing Feasibility Study, and other future related reports.

1.2 Project Background, Purpose, and Need

When early settlers began arriving in the area that is now the City of Los Angeles, they were attracted to the Los Angeles River, which provided them an oasis in the desert. More and more people came into the area and settled, and the City of Los Angeles emerged. In the early days, the river provided residents with water, shade, recreation, and, at some points, transportation, all of which allowed the city to grow and flourish. However, on numerous occasions the river flooded homes and businesses along its banks. Following attempts by the County during the first part of the twentieth century to reinforce the river channel, the Corps constructed a concrete-lined channel from 1938 through the 1940s as a public works project. Since that time, and continuing at present, the Corps and the Los Angeles County Flood Control District maintain the river channel and the immediate watershed, primarily for flood control, providing navigation where feasible, and restoring ecosystem functions as opportunities arise.

The Los Angeles River runs 51 miles through urban Los Angeles (through both the city and the county). Over the past several decades, industrial areas have been developed along the river banks, restricting visual and physical access to the river. Such uses have historically precluded development of river-adjacent lands to enhance habitat, recreation, open space, and quality of life or to provide development opportunities and community-building urban nodes.

Over the past two decades, the City of Los Angeles, the Corps, through various partnerships, other agencies, such as Los Angeles County, and numerous key stakeholder groups, such as Friends of the Los Angeles River (FOLAR) and individual communities, have been actively pursuing the revitalization of the Los Angeles River in the city of Los Angeles. In keeping with these revitalization efforts, the LARRMP was prepared as a conceptual framework to guide the revitalization of the river through transformation. The LARRMP provides a plan for restoring the river’s former ecological significance as a natural system, as a place that brings neighborhoods together and provides green space in the heart of the city, and as an amenity and investment that brings great value to the city (City of Los Angeles 2006b). The LARRMP provides physical and policy recommendations for reclaiming and renewing the river’s ecological function; providing more green space within the heart of the city; strengthening and re-connecting city neighborhoods; and reducing residents’ reliance automobiles to move within the city by increasing opportunities for nonmotorized transportation. Furthermore, the LARRMP has been developed to complement and reinforce the many water resources planning efforts that have been completed or are under way in the Los Angeles River Basin. The LARRMP
also incorporates expressed community needs and concerns, such as public safety, homelessness, lost jobs, affordable housing, and additional parkland and playing fields for youth.

The LARRMP project is needed to help address basic long-standing environmental, social, and economic problems along the Los Angeles River that with time and inattention are expected to worsen. These problems include compromised water quality, accumulation of trash, lack of habitat, risks to public safety, inadequate parkland and playing fields, homelessness, lack of affordable housing, and loss of jobs.

1.3 PROJECT GOALS AND OBJECTIVES

The City of Los Angeles, along with the community, developed the following goals for the LARRMP:

- Establish guidelines for environmentally sensitive urban design, land use, and development for the Los Angeles River that will create economic development opportunities to enhance and improve river-adjacent communities; this would be accomplished by providing open space, housing, retail spaces (such as restaurants and cafes), educational facilities, and places for other public institutions;
- Improve the environment, enhance water quality, and improve water resources and the ecological functioning of the river;
- Improve, restore, and increase natural native habitats, eradicate invasive non-native habitats, and provide links and connections to existing habitats;
- Provide and improve public access to the river;
- Provide significant recreation space and open space and new trails;
- Preserve and enhance the flood control features of the river; and
- Foster a growth in community awareness and pride in a revitalized Los Angeles River.

1.4 DOCUMENT OVERVIEW

Early in 2005, the City of Los Angeles indicated its intention to develop the LARRMP, and the City and the Corps agreed to collaborate on this combined CEQA/NEPA document for the following purposes:

- To expedite environmental review of the LARRMP in a timely way;
- To efficiently comply with and follow both CEQA and NEPA requirements and guidelines;
- To ensure a comprehensive approach to the evaluation of potential environmental impacts; and
- To provide consolidated documentation of environmental information about the Los Angeles River that could be useful to both parties.

This PEIR/PEIS document evaluates at a programmatic level the potential environmental impacts associated with the array of river channel modifications and open space development measures proposed in the LARRMP. Site-specific CEQA/NEPA analysis will be prepared to evaluate and document individual projects proposed for implementation under the LARRMP. All future projects tiering off of this PEIR/PEIS will avoid duplicative reconsideration of basic policy considerations contained in this document (CEQA Guidelines 15168(b)(3)). This PEIR/PEIS will allow the lead agencies to consider broad-policy alternatives and program-wide mitigation measures at an early time when there is greater flexibility to deal with basic
problems or cumulative impacts. The study area for the PEIR/PEIS generally covers the LARRMP planning area, which is approximately a half-mile band on each side of the Los Angeles River, along the 32-mile-long portion of the river between Canoga Park and the city of Vernon (Figure 1-1). As shown in Figure 1-1, the study area becomes slightly wider at five locations selected in the LARRMP as sites to demonstrate distinctive configurations of revitalization measures.

These five demonstration areas are referred to as “opportunity areas” in the LARRMP and this PEIR/PEIS. The study area, including the 32-mile-long by one-mile-wide area and the five LARRMP opportunity areas, is generally referred to in this PEIR/PEIS as the “River Corridor.” As is typically the case with this type of document, the PEIR/PEIS introduces somewhat unique terminology to describe and discuss potential environmental impacts of implementing the LARRMP. The less common terminology used in this document is defined in Appendix C.

The conclusions presented in this PEIR/PEIS are that adverse impacts associated with certain aspects of air quality, water quality, biological resources, land use, noise, public health and safety, transportation, socioeconomic resources, environmental justice, and cultural resources could be significant, while impacts expected on the remaining six environmental resource areas (agricultural resources; geology, soils, and seismic hazards; mineral resources; recreation; utilities and infrastructure; and aesthetic resources) are not likely to be significant. Beneficial impacts are expected on certain aspects of air quality, water quality, biological resources, recreation, and aesthetic resources.

The primary purpose of this PEIR/PEIS is to address impacts and mitigation associated with the array of river revitalization measures proposed in the LARRMP for implementation over the long term within the River Corridor and the five opportunity areas. In fulfilling this purpose, this PEIR/PEIS provides information that the lead agencies can use over time to evaluate the potential impacts of implementing LARRMP revitalization projects to modify the river channel and measures for developing open space. This PEIR/PEIS also fulfills the requirements of CEQA and NEPA by providing the lead agencies with information on conditions and potential environmental impacts in the study area to help evaluate the LARRMP. For the City of Los Angeles, this could enable the City Council in early spring 2007 to adopt staff recommendations about the LARRMP and to proceed with implementation.

By cooperatively developing this PEIR/PEIS, the co-lead agencies anticipate that the evaluation of future projects in the River Corridor and the five opportunity areas can be guided by the discussion of potential impacts and identification of best management practices (BMPs) and mitigation measures provided in this PEIR/PEIS. This should promote the preparation of shorter subsequent CEQA and NEPA documents for future projects and provide efficiency in complying with CEQA and NEPA requirements and guidelines.
FIGURE 1-1
RIVER CORRIDOR
Los Angeles River Revitalization Master Plan PEIR/PEIS

LEGEND
- Opportunity Areas
- Los Angeles River Corridor
- Los Angeles River and Tributaries
- Major Roads (within 2 miles)
- Freeways

City of Los Angeles
Los Angeles County

Canoga Park
River Glen
Taylor Yard
Cornfields/Chinatown
Downtown Industrial

FIGURE 1-1
1.5 PEIR/PEIS APPROACH TO EVALUATING ENVIRONMENTAL IMPACTS

The general approach taken in this PEIR/PEIS to evaluate the potential environmental impacts associated with implementing the LARRMP has included the following elements:

- Identifying and evaluating potential environmental impacts associated with the types of river channel modifications and open space development measures being proposed within the River Corridor and the five opportunity areas;
- Evaluating two alternative configurations of revitalization measures at four of the five opportunity areas (one only at Taylor Yard), as well as a No Project Alternative.
- Identifying potential mitigation actions and BMPs that could be employed when implementing potential future projects in order to avoid, minimize, and reduce potential adverse environmental impacts.

1.6 INTENDED USES OF THIS PEIR/PEIS

This PEIR/PEIS will be used by the two collaborating lead agencies (City of Los Angeles BOE and the Corps) to help plan and guide future management actions and projects to achieve the LARRMP goals and objectives and help restore ecosystem functions of the river. The more specific uses of this document anticipated by each of the co-lead agencies are discussed below.

City of Los Angeles BOE (CEQA Lead Agency)

Using the information provided in this PEIR/PEIS, the City of Los Angeles BOE will ask the City Council in early spring 2007 to approve the following staff recommendations:

- Concur with the staff-preferred recommendations contained in the LARRMP;
- Instruct the city staff (BOE/Department of Water and Power (DWP)/Planning) to pursue project level implementation of LARRMP staff-recommended alternatives with appropriate community input and subsequent environmental documentation;
- Instruct city staff to report to the Los Angeles River Ad Hoc Committee periodically about progress made in pursuit of specific projects pursuant to the LARRMP and in conformity with the LARRMP PEIR/PEIS;
- Instruct City staff (BOE) to continue its partnership with the Corps to complete the Los Angeles River Ecosystem Restoration Feasibility Study, and secure federal funding for applicable revitalization/restoration projects;
- Instruct City staff, BOE, the Planning Department, and the City Attorney’s Office to, within one year, return to City Council with recommendations for the River Improvement Overlay Districts, their boundaries, and design guidelines;
- Instruct staff of the Planning Department to develop, in separate but concurrent community outreach processes, land use regulations and performance standards, per the LARRMP and through subsequent CEQA documents, and to reconcile existing community plans with the preferred alternatives contained in the LARRMP;
1. Introduction

- Direct the Chief Legislative Analyst to pursue amendments to the federal Water Resources Development Act that would enable the economic development objectives of the LARRMP to be implemented;
- Direct the City of Los Angeles Department of Public Works (LADPW) to implement the Bureau of Street Services (BOSS) streetscape standards; the Bureau of Street Lighting (BSL) lighting standards; the Bureau of Sanitation (BOS) stormwater management requirements; and the BOE public streets permitting changes, as described in the LARRMP;
- Establish a River Project Office with staff from the Bureau of Engineering and the Department of Planning to ensure implementation of these recommendations and for monthly progress reports to the Los Angeles River Ad Hoc Committee;
- Instruct City staff, BOE, Planning, and the City Attorney’s Office to, within one year, return to the City Council with recommendations on an appropriate river management structure for the River Corridor; and
- Institute a river management structure along the lines recommended by the adopted LARRMP to include the following:
  o Joint Powers Agreement with the County of Los Angeles;
  o Nonprofit River Corporation; and
  o Nonprofit River Foundation.

**Corps of Engineers (NEPA Lead Agency)**

The Corps will incorporate relevant information from this PEIR/PEIS document into the Los Angeles River Ecosystem Restoration Feasibility Study, which is being prepared. The feasibility study is anticipated to provide a framework and platform for identifying and evaluating potential future ecosystem restoration projects along the Los Angeles River and to support any overlap with the goals and objectives of the LARRMP. The Corps will use this document in developing the feasibility study and accompanying environmental documentation. The Corps would prepare additional NEPA analysis for the federal recommendations developed in the feasibility study.

### 1.7 ENVIRONMENTAL REVIEW GUIDELINES

Applicable state (CEQA) and federal (NEPA) guidelines regarding the preparation of this combined PEIR/PEIS are described below.

#### 1.7.1 California Environmental Quality Act

This PEIR/PEIS follows guidance provided in CEQA (Public Resources Code [PRC] 21000 et seq.) and other relevant regulations. Potential environmental impacts that may accompany future implementation projects have been identified and evaluated against baseline physical conditions (CEQA Guidelines 15125[a]). Also, the No Project Alternative (CEQA Guidelines, Section 15126.6[e]) has been addressed.

Historically, courts in California have interpreted CEQA to afford the fullest protection of the environment within the reasonable scope of the statutes. The policy generally requires the following:
• State agencies that regulate private individuals, corporations, and other public agencies whose activities may affect the environment shall regulate to prevent environmental damage;

• Government agencies shall develop standards and procedures necessary to maintain, protect, rehabilitate, and enhance environmental quality, including fish and wildlife populations and plant and animal communities;

• Projects carried out by public agencies shall be subject to the same level of review as private projects requiring approval by public agencies;

• No projects that would cause significant environmental effects shall be approved as proposed if there are feasible alternatives or mitigation measures that would lessen those effects;

• Environmental impact reports shall be used to provide full public disclosure and to identify and focus on significant effects, alternatives, mitigation measures, and specific economic, social, or other conditions that may make the mitigation infeasible.

• Local agencies should integrate CEQA with other environmental review, planning, and information gathering so as to cut costs and time and to apply the conservation of financial, governmental, physical, and social resources toward better mitigation;

• Identification of significant effects, alternatives, and mitigation measures, as well as comments from the public and public agencies and relevant information about significant effects, should be made as early as possible in the process; and

• Failure to comply with CEQA to provide full disclosure of information, which would result in relevant information not being presented to the public agency, would constitute prejudicial abuse of discretion, which could leave the project proponent open to lawsuits (CDFG 2006).

This document helps fulfill CEQA requirements for implementing the LARRMP. In the event the City Council approves in early spring 2007 the staff recommendations, based on this PEIR/PEIS, and as LARRMP implementation efforts follow, additional CEQA documentation would need to be prepared for specific projects.

The Revitalization Master Plan contains a list of potential projects that could be implemented in the future. The approximate locations of these projects were identified in the project maps presented in Chapter 10 of the LARRMP. These approximate locations were based on a preliminary assessment of where the projects might be suitable along the River Corridor. The projects and locations are conceptual, and if any of these projects were selected to move into the design phase, each would require further detailed investigations and subsequent environmental evaluation.

1.7.2 National Environmental Policy Act

NEPA is the basic national charter for protecting the environment. NEPA declares it a national policy to “encourage productive and enjoyable harmony between man and the environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; and to enrich the understanding of the ecological systems and natural resources important to the Nation” (42 USC 4321). NEPA recognizes the profound impacts of man’s activities “on the interrelations of all components of the natural environment,” such as urbanization, population growth, industrial expansion, and resource exploitation (42 USC 4331).
Section 102(2)(C) (42 USC 4332) requires that every recommendation or report on proposals for legislation and other major federal actions significantly affecting the quality of the human environment include the following:

- A statement on the environmental impacts of the proposed action;
- Any adverse environmental effects that cannot be avoided should the proposal be implemented;
- Alternatives to the proposed action;
- The relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity; and
- Any irreversible and irretrievable commitments of resources that would be involved in the proposed action should it be implemented.

Agencies responsible for the action should consult with and obtain comments from other agencies with jurisdiction by law or special expertise, with response to any environmental impact.

1.8 **PUBLIC INVOLVEMENT IN PEIR/PEIS**

#### 1.8.1 Overview

The development of this PEIR/PEIS has involved a process prescribed by CEQA and NEPA, whereby input is sought from regulatory agencies and the public at the beginning, or “scoping phase,” of the PEIR/PEIS process and is again sought during public review of the draft PEIR/PEIS. By providing these opportunities for public involvement during the development of the PEIR/PEIS, the lead agencies ensure the following:

- A comprehensive approach is taken in the PEIR/PEIS;
- The PEIR/PEIS complies with applicable federal, state, and local regulations; and
- The PEIR/PEIS process recognizes and adequately addresses all relevant local and regional issues.

Individuals and organizations are invited to access information concerning the LARRMP and PEIR/PEIS at the following web site: http://www.lariverrmp.org.

#### 1.8.2 Scoping

As guided by CEQA and NEPA, to help determine the scope and content of the PEIR/PEIS, the City of Los Angeles and the Corps prepared and circulated from April 7, 2006, through May 8, 2006, a notice of preparation/notice of intent (NOP/NOI) for this PEIR/PEIS for agency and public review. The Corps also published the NOI in the *Federal Register* on February 6, 2006. The NOP/NOI was sent to over 900 federal, state, and local agencies, organizations, and individuals on the project mailing list. Also, a press release describing the PEIR/PEIS and inviting the public to attend a public scoping meeting was prepared and sent to local and regional newspapers. A public scoping notice was published on April 8 and 9, 2006, in the *Los Angeles Times*, the *Daily News*, *La Opinion*, and the *Los Angeles Sentinel*.

A combined CEQA/NEPA scoping meeting was held April 18, 2006, to allow agencies and the public to comment on the scope and content of the PEIR/PEIS. Eighteen people attended this meeting. Meeting
attendees were afforded the opportunity to provide input to help define the scope of the PEIR/PEIS. A sign up form was provided to allow attendees to be added to the mailing list. Several visual aid panels were displayed and a presentation was made at the meeting to further explain and clarify the LARRMP and the PEIR/PEIS process.

Issues identified during the PEIR/PEIS scoping phase include the following:

- Air quality analysis should address emissions from all project phases and activities;
- For projects generating vehicle trips, a mobile source health risk assessment based on Southern California Air Quality Management District CEQA guidance should be performed;
- Unstable soils, liquefaction, soil erosion and landslides should be addressed;
- The contaminant plume that migrates down the channel should be addressed;
- Flooding impacts, including any decrease in the flood control capability of the river, should be addressed;
- Changes to the drainage of rights-of-way should be mitigated to maintain or improve current drainage conditions;
- Whether revitalization may cause further pollution of water and additional water quality issues should be addressed;
- Water quality should be addressed;
- Effects on migratory wildlife, include wildlife movement and corridors, should be addressed;
- An assessment of sensitive fish, wildlife, reptile, and amphibian species should be conducted;
- Construction activities should not be conducted during the bird breeding season;
- Impacts to biological resources should be minimized;
- Watershed, habitat, and wildlife corridor issues from other plans should be addressed;
- Effects of proposed developments should be assessed based on US Fish and Wildlife Service guidelines;
- Conflicts with existing community plans should be addressed;
- Effects of zoning and land use changes on existing properties should be addressed;
- Increased use of existing natural recreational paths as a result of the project should be addressed;
- Increase in the need for swift water rescues from increased river access should be addressed;
- Increase in waterborne insects and related diseases from an increase in ponded water should be addressed;
- Effects of the project on emergency response or evacuation plans and routes should be addressed;
- Potential disturbance and release of hazardous wastes and substances should be addressed;
- Effects of truck-based transportation of materials during construction should be addressed;
- Effects on Metro’s property and rail right of way should be addressed;
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- Effects on traffic, parking, and railways should be addressed;
- Economic effects, including population changes and relocation of jobs, should be addressed;
- Displacement of low- and very low-income households should be addressed;
- Effects of residential encroachment on cultural resources should be addressed;
- Effects on visual aesthetics and conflicts with existing plans should be addressed.

1.8.3 Public Review of Draft PEIR/PEIS

The Draft PEIR/PEIS was circulated for public review and comment for 54 days (February 2, 2007 to March 27, 2007), exceeding typical CEQA and NEPA guidelines. During this period, three public hearings were held in three different locations on three separate dates (Hollenbeck Middle School, February 24, 2007; Canoga Park High School, February 27, 2007; Los Angeles Metropolitan Water District, February 28, 2007) to provide opportunities for presenting oral and written comments on the Draft PEIR/PEIS. In addition, individuals and representatives of organizations and agencies were invited to submit written comments without attending the public hearings. All comments, as well as City of Los Angeles and Corps responses, are included in Appendix F of this Final PEIR/PEIS. Where comments resulted in changes to the text of the Draft PEIR/PEIS, additions are noted as underlined text in this document. Deletions in the text have not been noted.

1.9 Relationship to Other Projects and Programs and Previous Relevant Studies

The development of this LARRMP PEIR/PEIS has drawn on existing planning efforts that have been recently completed or are ongoing in the Los Angeles River Basin. Efforts have been taken to incorporate and build on existing work, as opposed to duplicating or reinventing past efforts. This LARRMP PEIR/PEIS incorporates by reference the Integrated Regional Water Management Plan for the Los Angeles River Watershed; the Los Angeles Citywide General Plan Framework EIR; the Arroyo Seco Watershed Management and Restoration Plan EIR; the Tujunga Wash 905b Report; the City of Los Angeles Integrated Resources Plan EIR; the Sepulveda Basin Master Plan EIR; and other relevant studies.

In preparing this PEIR/PEIS, the research team reviewed and evaluated about 115 relevant reports (a list of the reports and the PEIR/PEIS resource areas they address is presented in Appendix D). Below is a summary of some of these relevant studies and documents that were used during the preparation of this PEIR/PEIS.

- **Los Angeles River Master Plan (1996)**—LADPW, Parks and Recreation, and Regional Planning coordinated the development of this master plan for the Los Angeles River. The plan identified ways to revitalize the publicly owned rights-of-way along the Los Angeles River and Tujunga Wash by enhancing the river’s environment and developing public recreation sites. The mission of the plan was to provide for the optimization and enhancement of aesthetic, recreational, flood control, and environmental values by creating a community resource, enriching the quality of life for residents, and recognizing the river’s primary purpose of flood control. The LARRMP builds upon the County of Los Angeles’ 1996 LA River Master Plan by supporting its aims and objectives, including consistency with its Landscaping Guidelines and Plant Palettes, and by providing opportunities to link County and City projects all along the river. The LARRMP extends the possibilities of this development by also proposing changes to the river’s concrete channel. In some cases, concrete may be removed or the channel may be reconfigured to accommodate expanded greenspace.
development. These proposals require detailed hydrologic and hydraulic analyses that were begun in the LARRMP process and will be further evaluated in the subsequent US Army Corps of Engineers’ Feasibility Study. The City’s Plan proposes continued collaboration with both the County and the Corps on Plan implementation issues, such as access, maintenance, and public safety, through establishment of a participatory and permanent River Authority.

- **Common Ground from the Mountains to the Sea, San Gabriel and Los Angeles Rivers Watershed and Open Space Plan (2001)**—This plan was prepared by the California Resources Agency, the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, and the Santa Monica Mountains Conservancy. The purpose of the plan is to articulate a vision for the future of the San Gabriel and Los Angeles Rivers watersheds and to provide a framework for future watershed and open space planning. The plan includes guiding principles, strategies, opportunities, and a discussion of next steps.

- **Los Angeles Citywide General Plan System (2002)**—The General Plan, prepared and maintained by the Department of City Planning, is a comprehensive, long-range declaration of purposes, policies, and programs for developing the City of Los Angeles. The plan is composed of 11 elements that apply citywide (framework, transportation, infrastructure systems, land use, housing, noise, air quality, conservation, open space, historic preservation and cultural resources, safety, and public facilities and services). The Framework Element is a guide for communities to implement growth and development policies by providing a comprehensive long-range view of the city as a whole. This element is the product of numerous public workshops and events, advisory committee meetings, and economic, land use, and environmental studies conducted by a team of city planners, engineers, and consultants. It provides a comprehensive strategy for accommodating long-term growth should it occur as predicted. Framework Element strategies build on the historic physical form and character of Los Angeles in a manner that enhances, rather than degrades, the city’s and region’s environmental resources and quality of life for residents.

- **Los Angeles State Historic Park (Cornfields)**—The California State Parks prepared a general plan and draft EIR for the Los Angeles State Historic Park in 2005. An interim park was opened in September 2006 and includes a natural amphitheater for community events, a multiuse plaza, approximately four acres of open turf area for informal recreation and events, temporary classroom structures, interpretive panels, and walking trails. Planning efforts to complete a permanent park are ongoing.

- **Rio De Los Angeles State Park (Taylor Yard)**—California State Parks prepared a general plan and draft EIR for a park at the Taylor Yard site, about 2.5 miles north of downtown. The general plan serves as a guide for future development, parkland acquisition, and construction of trails, parks, and other public facilities. Construction of the park began in January 2005. Facilities include an amphitheater, soccer fields, tennis courts, baseball fields, trails, play areas, natural areas, and picnic facilities.

- **Los Angeles and San Gabriel Rivers Watershed Feasibility Study**—The Corps initiated the study in 2000 in partnership with LADPW. The objective of the study is to gather and evaluate available information, to develop a geographic information system (GIS) database, to identify three proposed multiobjective project sites, and to develop a framework for an Integrated Basin Management Plan in the Los Angeles County Drainage Area. The study preparers are investigating solutions to flood control problems, while addressing environmental degradation.
1. Introduction

- **Arroyo Seco Watershed Management and Restoration Plan (2005)**—The purpose of the project is to develop a plan to manage and restore water quality and habitat in the Arroyo Seco watershed. The study builds on the work completed during the Arroyo Seco Watershed Restoration Feasibility Study (ASWRFS), published in 2002. The Watershed Management and Restoration Plan focuses on two key elements covered by the ASWRFS, water quality and habitat, and enhances the previous recommendations by subjecting them to in-depth technical analysis and presents more detailed project descriptions. Like the ASWRFS, the plan includes a series of recommended projects, but it also describes the contributions these projects will make to water quality and habitat improvement. It also prioritizes them, providing a clear roadmap for governmental agencies and organizations looking to improve water quality and habitat in the Arroyo Seco.

- **Arroyo Seco Watershed Reconnaissance Study, Section 905(b) Analysis**—In September 2002, the Corps conducted a reconnaissance study. They concluded that there is a federal interest in conducting a cost-shared feasibility study to develop information and analytical tools to define water-related resource problems and opportunities within the watershed. The Corps began a feasibility study in 2005, but funding limitations have hindered its progress.

- **The Green Vision Plan**—The plan is a joint venture between the University of Southern California and the region’s land conservancies, including the Rivers and Mountains Conservancy, Santa Monica Mountains Conservancy, Coastal Conservancy, and Baldwin Hills Conservancy. The mission of the Green Vision Plan for 21st Century Southern California is to provide a guide to habitat conservation, watershed health, and recreational open space for the Los Angeles metropolitan region, and to design planning and decision-support tools to nurture a living green matrix for southern California. Their goals are to protect and restore natural areas, to restore natural hydrological function, to promote equitable access to open space, and to maximize support via multiple-use facilities.

- **Watershed Management Initiative (WMI)**—The WMI was initiated in the late 1990s by the State and Regional Water Quality Control Boards. The initiative is designed to integrate various surface water and groundwater regulatory programs, while promoting cooperative collaborative efforts within a watershed. It is also designed to focus limited resources on key issues and to use sound science. The WMI uses a strategy to draw solutions from all interested parties within a watershed and to more effectively coordinate and implement measures to control both point and nonpoint sources.

- **City of Los Angeles, Department of Water and Power, 2005 Urban Water Management Plan**—The Urban Water Management Plan serves as the City’s master plan for water supply and resources management. The plan addresses how the City will 1) pursue cost-effective water conservation and recycling projects to increase supply reliability and offset increases in water demand due to growth and environmental enhancements; 2) protect existing groundwater supplies from contamination and provide treatment to optimize their use; 3) ensure access to reliable and affordable supplemental water supplies through active and effective representation at the Metropolitan Water District of Southern California; 4) maintain the operational integrity of the Los Angeles Aqueduct and the City’s water distribution system; and 5) secure needed funds, including the pursuit of outside funding and to develop alternative supplies, such as conservation and recycling projects and resource management programs.

- **City of Los Angeles Integrated Resources Plan (IRP), Facilities Plan and EIR (2005)**—The integrated wastewater IRP Facilities Plan describes the wastewater, recycled water, and runoff...
systems in the City of Los Angeles, identifies system inadequacies based on the needs projected for 2020, and provides recommended alternatives to address the future needs of the systems. The City of Los Angeles owns and operates four wastewater treatment plants and water reclamation plants that manage the wastewater generated in the City of Los Angeles and neighboring jurisdictions. Future population increases in the City of Los Angeles and its service areas would result in increased wastewater flows that must be managed safely. This plan and EIR address the alternatives to manage the facilities effectively.

- **Los Angeles County 1994-2005 Integrated Receiving Water Impacts Report, Final Report (2005)**—The report, prepared for the LADPW, provides a comprehensive analysis of stormwater monitoring data for the past 10 years. The report was prepared to fulfill the requirements of the Monitoring and Reporting Program under the National Pollutant Discharge Elimination System (NPDES). The findings of this analysis are used to develop conclusions and recommendations for future monitoring under a new NPDES permit.

- **Integrated Regional Water Management Plan (2006)**—Los Angeles County is preparing an integrated water management plan to define a clear vision and direction for the sustainable management of water resources in the Greater Los Angeles County Region for the next twenty years. The plan presents the basic information regarding possible solutions and the costs and benefits of those solutions.

- **State Route 134-San Fernando Road Interchange Project Including Fairmont Avenue Flyover (2009-2010)**—The City of Glendale’s Traffic and Transportation Division has planned and received approval for construction of new transportation infrastructure facilities near the area of State Route (SR) 134 and San Fernando Road. The project includes on-ramp and off-ramp access to SR 134 in the vicinity of Western Avenue, Riverside Drive, and San Fernando Road.

- **State of California Global Warming Solutions Act (2006)**—The State of California’s Air Resources Board is preparing its guidelines for compliance with the State’s landmark Global Warming Solutions Act of 2006.

### 1.10 Organization of this PEIR/PEIS

The information compiled and the evaluation of potential environmental impacts provided in this PEIR/PEIS are organized into seven chapters and five appendices, as described below.

- **Chapter 1** is an overview of this document and contains information about the background, authorization, need, purpose, and approach of the PEIR/PEIS; the goals and objectives of the LARRMP; the public involvement opportunities associated with this PEIR/PEIS; and highlights of the relevant studies that were used in preparing this PEIR/PEIS.

- **Chapter 2** is a description of the array of river channel modification and open space development measures proposed within the Los Angeles River Corridor and the five opportunity areas and the alternatives evaluated in this PEIR/PEIS.

- **Chapter 3** is a general description of the conditions (Affected Environment) in the one-mile wide River Corridor and the five opportunity areas, which make up the area of study covered in this PEIR/PEIS.
Chapter 4 is a discussion of the potential environmental impacts (and mitigation) associated with the array of river channel modification and open space measures proposed within the Los Angeles River Corridor and the five opportunity areas, including Alternatives.

Chapter 5 identifies applicable federal and state environmental laws and regulations and measures to be undertaken in the future regarding specific projects to ensure compliance with these applicable environmental laws and regulations, as well as appropriate coordination with regulatory agencies.

Chapter 6 is a list of the preparers and reviewers of the PEIR/PEIS and persons consulted during the preparation.

Chapter 7 provides a list of references to relevant studies, reports, and other literature and documents cited in the PEIR/PEIS.

Included as appendices are the PEIR/PEIS distribution list (Appendix A), list of acronyms and abbreviations (Appendix B), glossary (Appendix C), list of relevant documents reviewed (Appendix D), an index (Appendix E), and the comment documents and responses to comments on the Draft PEIR/PEIS (Appendix F).
CHAPTER 2
DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION
The implementation of the LARRMP measures over the near-term planning period (within 5 years of adoption) and the long-term planning period (beyond 5 years) constitutes the project evaluated in this PEIR/PEIS. The general area of study includes one-half mile on each side of the 32-mile stretch of the Los Angeles River that begins approximately at Owensmouth Avenue in Canoga Park (at the confluence of Bell Creek and Arroyo Calabasas) and continues downstream to Washington Boulevard, near the northern boundary of Vernon (Figure 2-1). This study area is generally referred to in this PEIR/PEIS as the River Corridor. This study area also includes the five opportunity areas discussed in the LARRMP and evaluated in this PEIR/PEIS (Canoga Park, River Glen, Taylor Yard, Chinatown-Cornfields, and Downtown Industrial).

This chapter of the PEIR/PEIS is a description of the revitalization measures and alternatives, as well as the revitalization management framework discussed in the LARRMP. Those alternatives initially considered and eliminated from further evaluated are also presented.

The LARRMP measures and alternatives, and the revitalization management framework are described below under the following four categories:

- Physical modifications to the river channel;
- Open space development;

River Corridor – comprising the Los Angeles River plus ½ mile corridor on either side of the river, plus the expanded boundaries associated with the five Opportunity Areas described above. This is also the “planning area” covered in the LARRMP, and the “study area” covered in this PEIR/EIS.

Opportunity areas – five demonstration areas along the Los Angeles River where location-specific configurations of river channel modification, open space, and reinvestment measures have been selected to reflect existing land form and environmental characteristics, as well as community-based LARRMP revitalization opportunities and objectives. The five selected opportunity areas include Canoga Park, River Glen, Taylor Yard, Chinatown-Cornfields, and Downtown Industrial.
FIGURE 2-1
RIVER CORRIDOR
Los Angeles River Revitalization Master Plan PEIR/PEIS

LEGEND
- Opportunity Areas
- Los Angeles River Corridor
- Los Angeles River and Tributaries
- Major Roads (within 2 miles)
- Freeways

City of Los Angeles
Los Angeles County
• The five opportunity sites; and
• Revitalization management.

2.2 PHYSICAL MODIFICATIONS TO THE RIVER CHANNEL

2.2.1 Introduction
As discussed in the LARRMP, a range of river channel modification measures has been developed, based on the river channel characteristics along the 32-mile River Corridor. For evaluation in this PEIR/PEIS, the potential river channel modification measures discussed in the LARRMP have been grouped into two categories:

• River channel modifications without reduction in river flow velocity (referred to as near term in the LARRMP), and
• River channel modifications with reduction in river flow velocity (referred to as long term in the LARRMP).

These two main categories of river channel modification measures are described below.

2.2.2 River Channel Modifications Without Reduction in River Flow Velocity
These near-term channel modification measures are mainly vegetation enhancement (sometimes referred to as greening in the LARRMP and this PEIR/PEIS) of the existing river channel within the channel right-of-way (ROW). Primary design criteria for these greening measures include vegetation coverage up to a maximum 30 percent of the ROW area, limiting vegetation development to the area above the 50-year storm elevation, and developing intermittent (rather than continuous) habitat areas along the channel bottom. These greening measures also include, where appropriate, enhancing water quality treatment of stormwater outfalls by developing vegetative bio-swales and bio-filtration areas.

2.2.3 River Channel Modifications With Reduction in River Flow Velocity
Three long-term types of river channel modification measures were identified in the LARRMP that include flow velocity reduction measures to enhance flood protection. Characteristics that distinguish these velocity-reducing channel modification measures include reducing channel flow velocity to less than 12 feet per second to allow vegetation to be planted and sustained to lower elevations within the channel, vegetation planting (greening) within the channel ROW up to a maximum 50 percent coverage (rather than to a maximum of 30 percent), and developing continuous (rather than intermittent) channel bottom habitat areas.

The three types of velocity-reducing channel modification measures differ from one another primarily in the way velocity is reduced, as follows:

• Type V-R 1 reduces velocity by developing off-corridor attenuation measures. These measures might include debris basins along the Los Angeles River tributaries, upstream (and outside) the River Corridor, to reduce flows into the main Los Angeles River channel to below 12 feet per second.

---

Bio-swale – landscape element designed to remove silt and pollution from surface runoff water.

Bio-filtration area – a pollution control technique using living material to filter or chemically process pollutants.
These attenuation measures are being undertaken in the Los Angeles River Basin as part of regional watershed study efforts that are underway. These efforts are outside the River Corridor Study Area identified in this PEIR/PEIS and therefore are not addressed in this PEIR/PEIS. Separate CEQA (and possibly NEPA) evaluations of potential impacts associated with these regional attenuation measures are being conducted as needed to comply with state and federal regulations.

- **Type V-R 2** reduces velocity by constructing underground linear culverts parallel to and adjacent to the river. This also allows for development of linear open space on top of the culverts. Figure 2-2 depicts typical views of this type of channel modification measure.

- **Type V-R 3** reduces velocity by widening the channel through land acquisition.

![Figure 2-2: Culvert Conveyance within Right of Way](image)

### 2.3 OPEN SPACE DEVELOPMENT

#### 2.3.1 Introduction

In addition to having a range of physical channel modification measures for the River Corridor, the LARRMP includes a suite of open space development measures that could be implemented (either separately or in combination) during the near-term and long-term planning periods along the 32-mile River Corridor. This diverse array of open space development measures was generated from community-based planning criteria and revitalization opportunities identified during LARRMP development.

As discussed in the LARRMP, the main goal in implementing the LARRMP open space development measures is to eventually develop a continuous greenway along the entire River Corridor that connects adjacent and surrounding communities to the river, while enhancing the habitat, recreation opportunities, aesthetics, water quality, and quality of life. The intention is to employ a suite of open space development measures in selected locations that physically highlight and increase awareness of revitalization, while improving access to the river.

Three primary objectives were established in the LARRMP for employing the suite of open space measures, as follows:
2. Description of Proposed Action and Alternatives

1. Establishing and enhancing “greenway connections” along local and main streets, through underpasses, and over bridges to parks, natural areas, public transportation, schools, and other public resources;

2. Providing “greenway expansions” of open space opportunities by developing new local and area parks, habitat areas, and recreational fields; and

3. Developing “greenway extensions” of the River Corridor greenway into surrounding communities by establishing greenways on river tributaries, “greening” selected local and major streets, and constructing new pedestrian bridges.

For discussion and evaluation in this PEIR/PEIS, the open space development measures discussed in the LARRMP have been organized under eight categories, as follows:

- Parks;
- Green streets;
- Paseos (covered walkways/river access points) and promenades;
- Trails and bikeways;
- Pedestrian river crossings;
- River loops;
- Gateways; and
- Water quality and habitat.

Each of these eight open space categories is described below.

2.3.2 Parks
The LARRMP identifies the following four types of park measures for development within the River Corridor:

- Riverfront parks;
- Linear parks;
- Pocket parks; and
- Recreation fields.

Each of these types is described below.
Riverfront Parks
These are parks developed along and adjacent to the river in locations when suitable land becomes available for this purpose. In addition to providing a mix of activities, portions of the park would also be used as vegetated open space for water quality enhancement. Potential design criteria include a 30-foot-wide landscaped buffer zone along the river edge; bio-swale, bio-filtration, detention, and infiltration areas; daylighting of existing storm drains; connections to adjacent communities; and access to the river. Figure 2-3a depicts a typical view of this type of park.

Linear Parks
In areas where available land along the river is restricted, narrow linear park spaces can be developed, with the intention of including landscaped meandering paths, interesting rest areas, and viewpoints. Where practicable, connections to adjacent neighborhoods, promenades, and bio-filtration, bio-swale, and infiltration strips for water quality enhancement would be included. Figure 2-3b depicts a typical view of this type of park.

Pocket Parks
This type of park would be developed in small local spaces within the River Corridor to provide a variety of passive, limited active, and rest areas. These park areas could be developed for such purposes as outdoor educational experiences adjacent to schools, joint-use neighborhood areas, and street-end or cul-de-sac parks. Potential design features include parking lots with impermeable surfaces, native plantings, way-finding and interpretive signage, and bio-filtration, bio-swale, and infiltration strips for water quality enhancement. Figure 2-3c depicts a typical view of this type of park.

Daylighting – exposing the discharge end of a culverted river, creek, or stormwater drainage. This technique is employed to help improve water quality and hydraulic capacity.

Linear parks – narrow, straight strips of land, usually developed with native vegetation, for the enjoyment of the public, having facilities for rest and recreation.

Infiltration strip – a densely vegetated (planted) strip of land, engineered and constructed to accept and manage runoff through settling, filtration, absorption and infiltration processes.

Pocket parks – small plots of land, typically including native vegetation, developed for the enjoyment of the public, having facilities for rest and recreation. This type of area would be developed in small local spaces within the River Corridor to provide a variety of passive, limited active, and rest areas. These areas could be developed for such purposes as outdoor educational experiences adjacent to schools, joint-use neighborhood areas, and street-end or cul-de-sac parks.
2. Description of Proposed Action and Alternatives

**Recreation Fields**

This type of park includes a variety of active sports fields and associated support facilities at appropriate locations along the River Corridor. Playing fields and courts could include softball, baseball, soccer, tennis, badminton, and basketball. Depending on the particular location and available land area, this park development could include either single-function sports fields or fields with various combinations of sports. Figure 2-3d depicts a typical view of a recreation field.

![Figure 2-3d](Recreation Field Example)

**2.3.3 Green Streets**

The LARRMP presents three types of green streets that can be developed within the River Corridor: Local green streets, arterial green streets, and regional greenway connections.

Features common to the three types of green streets are landscaping with native trees and shrubs to help achieve the “greenway connection” and “greenway extension” objectives described earlier; safe bike routes; traffic calming measures, such as speed humps, roundabouts, raised crosswalks, neck-downs, and textured paving; river-theme street furniture and direction signs; and water quality enhancement measures, such as bio-filtration, bio-swales, and infiltration strips. The main differences among the three types of green streets are described below. Figure 2-3e depicts a typical view of a roundabout, a traffic calming measure.

![Figure 2-3e](Traffic Calming Roundabout)

Green streets – the LARRMP presents three types of green streets that can be developed within the River Corridor: Local green streets, arterial green streets, and regional greenway connections. Features common to the three types of green streets are landscaping with native trees and shrubs to help achieve the “greenway connection” and “greenway extension” objectives; safe bike routes; traffic calming measures, such as speed humps, raised crosswalks, neck-downs, and textured paving; river theme street furniture and direction signs; and water quality enhancement measures, such as bio-filtration, bio-swales, and infiltration strips.
Local Green Streets
This type of measure would occur on local streets adjacent to and leading to the river and would provide safe and visible neighborhood connections and access points to the river. Selected main local streets would be “greened,” as discussed above, to provide primary neighborhood connections to the river, and additional selected minor local streets would be greened to provide secondary neighborhood connections. In addition to the above measures, other measures could include consolidating and burying power lines, constructing river theme “access gateways” to the river (see Section 2.3.8), and developing pocket parks. Figure 2-4a depicts a typical view of this type of green street.

Arterial Green Streets
These would be along major streets within the River Corridor that lead to the river, eventually about every half-mile. In addition to employing the suite of greening measures listed above, emphasis would be placed on landscape features that raise awareness of the revitalized river zone, traffic calming measures, safe pedestrian and bike opportunities, and water quality enhancement measures. Figure 2-4b depicts a typical view of this type of green street.

Regional Greenway Connections
Development of this type of green street is similar to arterial green streets, with additional focus on selecting those arterial streets that have existing bikeways and pedestrian routes, as well as nearby public transportation links and nodes. Another focus of this street type is selecting those arterial streets that are suitably oriented and located to provide open space green links between the revitalized river zone and green resources outside the river zone, such as regional parks, schools, and natural/habitat areas.

2.3.4 Paseos and Promenades
This type of open space measure generally refers to a set of land use development features (in construction areas and existing communities) along the River Corridor that would provide local access to the river and integrate with community-oriented pedestrian meeting and shopping places. The objective would be to have

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Local green streets – green streets adjacent to and leading to the Los Angeles River that would provide safe and visible neighborhood connections and access points to the river.

Arterial green streets – green streets along major streets within the River Corridor that lead to the Los Angeles River, eventually about every half-mile.

Regional greenway connections – green streets similar to arterial green streets, with additional focus on those arterial streets that have existing bikeways and pedestrian routes, as well as nearby public transportation links and nodes.

Paseos – public streets or walkways designed for pedestrian movement associated with a mix of community interaction and commercial opportunities. These features may also be combined with open space or access to the river.

Promenade – a public area used for walking and gathering.
these open space types support and highlight the revitalization theme and community connectivity along the River Corridor. Features that could be integrated at these locations include plazas and courtyards, pocket parks, habitat areas, water quality enhancement, boulevards, paseos, and river-adjacent promenades.

This type of open space could also be located where parking and emergency vehicle access can be provided and where links to bikeways and public transportation are available. Figures 2-5a and 2-5b present typical views of these types of open space measures.

**Figure 2-5a**
*Promenade Example*

**Figure 2-5b**
*Paseo Example*

### 2.3.5 Trails, Paths, and Bikeways

These types of open space measures involve developing safe, accessible, and aesthetic pedestrian and bicycle trails and paths that integrate with active and passive recreation opportunities offered by the other open space development measures along the River Corridor. The plan would be to eventually have a network of trails, paths, bikeways, and bridge underpasses developed along the 32-mile River Corridor that helps achieve the LARRMP greenway connection and greenway extension objectives described earlier.

The trails, paths, and bikeways would be of varying lengths (and widths), depending on the location, setting, and particular purpose. They would be developed for joint use and single use and would be designed to meet City of Los Angeles Recreation and Parks Department standards for width and safety. Single-use trails and paths could be constructed with either hard or permeable surfaces. Joint use trail/bikeways developed in off-road locations would typically be hard surfaced. Bikeways would also typically be developed along arterial streets, in accordance with City Recreation and Parks and Transportation Department standards. Safe rest stops, river theme furniture and signage, and transition nodes would also be incorporated into these measures. Figures 2-6a and 2-6b present typical views of these open space measures.
2.3.6 Pedestrian River Crossings and Bridge Underpasses

Similar to trails and bikeways, these types of open space measures involve development of safe, accessible, and aesthetic structures for pedestrians and bicyclists to be connected to revitalization opportunities and public resources along and across the River Corridor. The goal is to eventually have a pedestrian river crossing about every one-half mile along the 32-mile River Corridor and to have as many bridge underpasses as practicable. Both types of structures would be designed to meet City of Los Angeles Recreation and Parks Department and Transportation Department standards.

Pedestrian bridges would be of varying lengths and widths, depending on the location, setting, and particular purpose. Design criteria common to pedestrian bridges and bridge underpasses include river theme aesthetic treatments, safety lighting, surveillance equipment, and interpretive river theme and way-finding signs. Additional bridge elements include shade structures and seating areas. Also, bridge structures could be designed with a variety of materials (for example, concrete and wood), depending on the particular setting. Bridge and underpass design would also include structures designed to be accessible under the Americans with Disabilities Act. Figure 2-7a illustrates a typical view of a pedestrian bridge, and Figure 2-7b illustrates typical cross sections of pedestrian bridges. The center illustration shows a bridge underpass in cross section.
2.3.7 River Loops
The main purpose of this open space measure would be to help achieve the main LARRMP goal of developing a continuous greenway along the entire River Corridor that connects adjacent communities. As discussed in the LARRMP, 16 river loop segments have been identified along the 32-mile River Corridor (see Figure 2-8). The objective in developing 16 loops is to establish distinct community zones along the River Corridor that provide river recreational circuits that are convenient and community oriented. Other open space measures that could be developed in various combinations within a typical river loop are trails, paths, bridge underpasses and bikeways, linear parks, promenades, pocket parks, gateways (Section 2.3.8), and river theme furniture and interpretive and directional signs.
FIGURE 2-8
RIVER LOOPS
Bike Path/Trail Circuits
Los Angeles River Revitalization
Master Plan PEIR/PEIS

LEGEND
- Opportunity Areas
- Major Roads (within 2 miles)
- Freeways
- Los Angeles River and Tributaries
- River Loops (Path/Trail Circuits)
2.3.8 Gateways
Gateways would be developed to provide river-theme artistic structures at selected access points to the river within adjacent communities. The following three types of gateways measures are discussed in the LARRMP:

- Regional gateways at arterials and major access points;
- Neighborhood gateways at local street ends, cul-de-sacs, and paseos; and
- Infrastructure gateways at areas along river zone edges that are isolated by freeways.

Design features common to the three gateway measures include river-theme amenities (such as trash containers and drinking fountains); ADA-compliant access, where practicable; public art; native vegetation; interpretive and directional signs; and safety lighting. Figures 2-9a and 2-9b depict examples of gateways.

2.3.9 Water Quality and Habitat
These types of open space measures involve developing new or enhancing existing areas with native vegetation and landscaping to provide local habitat areas. Depending on the location and extent of land area available, these areas could also provide links to other natural or developed habitat areas within or adjacent to the River Corridor.

Where appropriate, these open space measures would incorporate daylighting of existing and new stormwater outfalls, bio-swales, bio-filtration areas, and infiltration strips for surface runoff, with the goal of improving water quality of runoff in the River Corridor. Also, these measures could be integrated with other open space measures, such as parks and green streets, to yield additional revitalization benefits. Figures 2-10a and 2-10b depict typical views of these open space measures.
2.4 THE FIVE OPPORTUNITY AREAS

2.4.1 Introduction
As discussed in the LARRMP, five opportunity areas along the River Corridor have been initially selected as demonstration case studies from among the 20-plus sites initially reviewed. The five selected opportunity areas are the following:

- Canoga Park;
- River Glen;
- Taylor Yard;
- Chinatown-Cornfields; and
- Downtown Industrial.

The locations of these five opportunity areas along the River Corridor are shown in Figure 2-11.

Each of the five opportunity areas presents a distinct set of river revitalization opportunities to demonstrate integration of LARRMP measures. Within each of the five areas, appropriate river channel modification measures and open space measures (described in the previous sections) have been organized to reflect existing land form and environmental characteristics, as well as community-based LARRMP revitalization opportunities and objectives. Also, the opportunity areas provide suitable locations for what are described in the LARRMP as reinvestment areas. These are specific regions within the opportunity areas where long-term land use changes can be undertaken to help achieve long-term economic viability and sustainability within a revitalized River Corridor. Potential reinvestment measures in the opportunity areas generally include redistributing, retrofitting (upgrading), and replacing land uses and infrastructure to help achieve the economic redevelopment/revitalization objectives identified in the LARRMP.
FIGURE 2-11
OPPORTUNITY AREAS
Los Angeles River Revitalization
Master Plan PEIR/PEIS

LEGEND
- Opportunity Areas
- Los Angeles River Corridor
- Los Angeles River and Tributaries
- Major Roads (within 2 miles)
- Freeways

City of Los Angeles
In the following five sections, the configuration of river channel modification, open space, and reinvestment measures making up each of the five opportunity areas are described. As presented in the LARRMP, two Alternatives are described for each opportunity area, except for Taylor Yard, where a single concept is proposed. At the other four sites, the second (B) Alternative represents a more extensive set of river channel modification, open space, and reinvestment measures than the first (A) Alternative, and these differences between alternatives are noted.

2.4.2 Canoga Park Opportunity Area

This opportunity area is bounded on the north by Sherman Way, on the east by De Soto Avenue, on the south by Victory Boulevard, and on the west by Topanga Canyon (Figure 2-12). For Alternative CP-A, Figure 2-13 shows open space measures for the CP-A concept. For Alternative CP-B, Figure 2-14 shows open space measures for the CP-B concept.
FIGURE 2-12
CANOGA PARK OPPORTUNITY AREA
Los Angeles River Revitalization Master Plan PEIR/PEIS

LEGEND
- Opportunity Area
- Roads
- Freeways
- Los Angeles River and Tributaries

[Map showing the Canoga Park Opportunity Area with roads, freeways, and the Los Angeles River and Tributaries marked.]
The two alternative sets of river channel modification, open space development, and reinvestment measures (Alternatives CP-A and CP-B), are presented in Table 2.4-1.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Alternative CP-A</th>
<th>Alternative CP-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel Modifications</td>
<td>River channel terraced on both the north and south sides for about 1,200 feet between Canoga and Variel. On the south side, the terrace accommodates public access to the water via a 15-foot-wide walkway, as well as water quality treatment terraces. Additional right-of-way acquired to create treatment terraces and Riverfront Park. On the north side, the existing channel right-of-way is maintained, and the bank is terraced to provide a 15-foot-wide hard surface walkway and linear park. Channel bottom is modified to develop intermittent habitat areas.</td>
<td>Same as for Alternative CP-A, except (1) terrace on north and south sides between Canoga and Variel extends an additional 800 feet, and (2) Arroyo Calabasas is daylighted to provide an urban water feature within the new Riverfront Park and through a corner of the Westfield Shopping Center parking lot.</td>
</tr>
<tr>
<td>Parks</td>
<td>Riverfront parks: (1) On the south side of the river extending south to front on Vanowen Street, and bound on the east by Alabama Street and on the west by Milwood Avenue.</td>
<td>Same as for Alternative CP-A, except the new riverfront park on the south side of the river would be expanded to extend from Arroyo Calabasas to Variel, with its southern edge remaining on Vanowen Street.</td>
</tr>
<tr>
<td>Green Streets</td>
<td>Linear parks: (1) North from the river to Sherman Way, within the MTA property between Canoga and Deering, currently being used as a landscape materials and stone yard. (2) Along north side of river at Basset.</td>
<td>Same as for Alternative CP-A.</td>
</tr>
<tr>
<td>Paseos and Promenades</td>
<td>Regional greenway connections: (1) North/south streets between Victory and Sherman Way (Topanga Canyon, Owensmouth, Canoga, Variel, and De Soto). (2) East/west streets between Topanga Canyon and Desoto (Vanowen Street). (3) Along the MTA ROW, extending from the intersection of Canoga and Vanowen, just to the south of the riverfront park, connecting the river into the existing Orange Line Regional Bikeway and Pierce College.</td>
<td>Same as for Alternative CP-A.</td>
</tr>
<tr>
<td>Bikeways and Trails</td>
<td>Arterial green streets: All north/south and east/west roadways not considered regional greenway connections.</td>
<td>Same as for Alternative CP-A.</td>
</tr>
<tr>
<td>Pedestrian River Crossings and Bridge Underpasses</td>
<td>Local green streets: Jordan, Remmet, Milwood, Independence, Vasser, Alabama Avenues and Variel and Eton Streets.</td>
<td>Same as for Alternative CP-A.</td>
</tr>
<tr>
<td>Paseo from Sherman Way to the river in the mid-block between Deering Avenue and Eton Street.</td>
<td>Same as for Alternative CP-A, except that additional paseos would be created on the south side of the riverfront park every 300 feet between roadways.</td>
<td></td>
</tr>
<tr>
<td>Proposed routes are shown in Figure 2-14.</td>
<td>Proposed routes are shown in Figure 2-15.</td>
<td></td>
</tr>
<tr>
<td>Pedestrian bridges at Deering Avenue, and between Alabama and Remmet Avenues.</td>
<td>Same as for Alternative CP-A.</td>
<td></td>
</tr>
<tr>
<td>Bridge Underpasses at Owensmouth, Canoga, and De Soto Avenues.</td>
<td>Same as for Alternative CP-A.</td>
<td></td>
</tr>
<tr>
<td>Regional gateways at Owensmouth, Canoga, and De Soto Avenues.</td>
<td>Same as for Alternative CP-A.</td>
<td></td>
</tr>
<tr>
<td>Neighborhood gateways: On north side of river at Jordan, Remmet, Milwood, and Independence Avenues.</td>
<td>Same as for Alternative CP-A.</td>
<td></td>
</tr>
<tr>
<td>Water Quality</td>
<td>Water quality enhancement: At confluence of Bell Creek and Arroyo Calabasas (see also Parks, above).</td>
<td>Same as for Alternative CP-A.</td>
</tr>
</tbody>
</table>
Table 2.4-1
LARRMP Measures Comprising Canoga Park Opportunity Area Alternatives CP-A and CP-B

<table>
<thead>
<tr>
<th>Measure</th>
<th>Alternative CP-A</th>
<th>Alternative CP-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Re-Investment</td>
<td>Land acquisition for public use would be encouraged for parcels that have near-term potential to be developed as open space measures. Reinvestment would rely on responses of private property owners to revitalization improvements and opportunities.</td>
<td>The level and intensity of reinvestment measures would be substantially increased over the previous alternative (CP-A), including rebuilding the river within this opportunity area from the confluence of Belle Creek and Arroyo Calabasas to demonstrate the potential of collaborative measures; (2) civic investment in river revitalization spurring collaborative private investment; (3) increasing density and influencing land use mix based on LARRMP revitalization goals and objectives; (4) developing a mixed-use village within the Canoga Park Opportunity Area with a major retail and entertainment center that is connected to the Orange Line and Westfield Center; (5) developing open space greenway connections and internal greenways to support the mixed-use village concept; and (6) protecting single family homes in the area.</td>
</tr>
</tbody>
</table>
Figure 2-13
Open Space Measures for the CP-A Concept
Figure 2-14
Open Space Measures for the CP-B Concept
2.4.3 River Glen Opportunity Area

This opportunity area is bounded on the north by Verdugo Wash, on the east by San Fernando Road, on the south by the Colorado Street Freeway Exit, and on the west by Griffith Park. Figure 2-15 shows the setting of this opportunity area, first under Alternative RG-A, then under Alternative RG-B. Figure 2-16 shows open space measures for the RG-A concept. Figure 2-17 shows open space measures for the RG-B concept.
FIGURE 2-15
RIVER GLEN OPPORTUNITY AREA
Los Angeles River Revitalization Master Plan PEIR/PEIS

LEGEND
- Opportunity Area
- Roads
- Freeways
- Los Angeles River and Tributaries

N
W
S
E

0 0.125 0.25 0.5 Miles

Los Angeles County
City of Los Angeles
The two alternative sets of river channel modification, open space development, and reinvestment measures (Alternatives RG-A, RG-B), are presented in Table 2.4-2.

**Table 2.4-2**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Alternative RG-A</th>
<th>Alternative RG-B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Channel Modifications</strong></td>
<td>The Verdugo Wash confluence is environmentally expanded to serve as a regional water quality treatment wetland. On the east bank, the river channel is terraced and planted above the 50-year storm elevation to provide a river parkway experience, viewable from the I-5 freeway. The channel bottom is modified to develop intermittent habitat areas.</td>
<td>Same as for Alternative RG-A, except (1) Verdugo Wash is realigned to enter the Los Angeles River farther downstream, creating a small island of habitat, and (2) on the east bank, additional ROW is acquired and the river channel is terraced to provide a series of street end parks and water quality treatment terraces.</td>
</tr>
<tr>
<td><strong>Parks</strong></td>
<td>A continuous linear terraced park, extending south from the expanded Verdugo Wash confluence area to North Atwater Park.</td>
<td>Same as for Alternative RG-A, except the continuous linear terraced park from Verdugo Wash confluence area to North Atwater Park is developed, with greater emphasis on water quality enhancement measures.</td>
</tr>
<tr>
<td><strong>Green Streets</strong></td>
<td>Regional greenway connections: (1) East/west streets between the river and N. Pacific Avenue, with improved pedestrian crossings at San Fernando Road, W. Milford Street, W. Broadway, and W. Colorado Street; (2) San Fernando Road and the frontage road within the industrial area is modified through wider sidewalks, street trees and other landscape improvements, and a center median to create a more pedestrian-oriented north/south connection.</td>
<td>Same as for Alternative RG-A.</td>
</tr>
<tr>
<td><strong>Regional gateway connections:</strong></td>
<td>All north/south and east/west roadways not considered regional greenway connections.</td>
<td>Same as for Alternative RG-A.</td>
</tr>
<tr>
<td><strong>Local green streets:</strong> W. Milford Street extension west, Brazil and Colorado Streets.</td>
<td>Same as for Alternative RG-A.</td>
<td></td>
</tr>
<tr>
<td><strong>Paseos and Promenades</strong></td>
<td>One paseo a half block north of Brazil Street and one a half block south of Brazil Street.</td>
<td>One paseo a half block south of Brazil Street and one a half block south of W. Milford Street.</td>
</tr>
<tr>
<td><strong>Bikeways and Trails</strong></td>
<td>Proposed routes are shown in Figure 2-17.</td>
<td>Proposed routes are shown in Figure 2-18.</td>
</tr>
<tr>
<td><strong>Pedestrian River Crossings and Bridge Underpasses</strong></td>
<td>Pedestrian bridges: Multiuse bridge south of the Ventura Freeway and an improved Colorado Street Freeway exit bridge with pedestrian access.</td>
<td>Same as for Alternative RG-A.</td>
</tr>
<tr>
<td><strong>Gateway</strong></td>
<td>Regional gateway at State Route 134.</td>
<td>Same as for Alternative RG-A.</td>
</tr>
<tr>
<td><strong>Water Quality and Habitat</strong></td>
<td>An expanded Verdugo Wash/Los Angeles River confluence that includes a terraced wetland habitat area and a realigned and braided Verdugo Wash. This improved wash is bounded by San Fernando Road on the east and Cutter Street on the south and would require the acquisition of several small recycling facilities, a propane gas dealership, and a Caltrans maintenance yard below the Ventura Freeway.</td>
<td>Same as for Alternative RG-A, except (1) as mentioned above, Verdugo Wash is realigned to enter the Los Angeles River farther downstream, creating a small island habitat and (2) a water quality/riverine habitat area is developed to the east of the Golden State Freeway, to bring the river into Griffith Park to the south of the Gene Autry Museum and Griffith Park Zoo.</td>
</tr>
<tr>
<td><strong>Re-Investment</strong></td>
<td>Currently underserved by its existing roadway network, this light industrial area would be the focus of an extensive roadway improvement plan, with the intent to create a</td>
<td>Same as for Alternative RG-A, except (1) grade separated crossings are developed at W. Milford and W. Broadway at San Fernando</td>
</tr>
</tbody>
</table>
Table 2.4-2
LARRMP Measures Comprising River Glen Opportunity Area Alternatives RG-A and RG-B

<table>
<thead>
<tr>
<th>Measure</th>
<th>Alternative RG-A</th>
<th>Alternative RG-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>contiguous roadway network, with expanded ROW to improve functionality. This alternative also includes protecting existing land uses and acquiring recyclers for the confluence business park.</td>
<td>Road to provide safer vehicular and pedestrian access to the industrial area and the river; and (2) existing land uses are redeveloped north of Brazil Street to capture economic development opportunities created by ongoing river revitalization.</td>
<td></td>
</tr>
</tbody>
</table>
Figure 2-16
Open Space Measures for the RG-A Concept
Figure 2-17
Open Space Measures for the RG-B Concept
2.4.4 Taylor Yard Opportunity Area

This opportunity area is bounded on the north by Fletcher Drive, on the east by Metro Link, on the south by
the Pasadena Freeway, and on the west by Blake Avenue (Figure 2-18). Figure 2-19 shows open space
measures for the proposed concept.
The river channel modification, open space development, and reinvestment measures for the proposed concept are presented in Table 2.4-3.

### Table 2.4-3

LARRMP Measures Comprising Taylor Yard Opportunity Area Proposed Concept

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>PROPOSED CONCEPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel Modifications</td>
<td>The east bank of the river channel is terraced for approximately one mile to provide for water quality treatment terraces. Channel bottom is modified to develop intermittent habitat areas.</td>
</tr>
<tr>
<td>Parks</td>
<td>Riverfront parks: (1) A regional park on the land parcel between the river and the Metro Link/Rail Corridor to the southwest of the Rio de Los Angeles State Park. This park area is bounded on the northwest by Edwards Way and on the southeast by the Golden State Freeway.</td>
</tr>
<tr>
<td></td>
<td>Linear park: (1) A continuous linear park along the western edge of the river between Fletcher Drive and the Pasadena Freeway.</td>
</tr>
<tr>
<td>Green Streets</td>
<td>Regional greenway connections: (1) East/west streets between the river and upland residential properties to the east on Fletcher Drive, Eagle Rock Boulevard, Division Street, Pepper Avenue, and Granada Street. (2) East/west streets between the river and residential properties to the west on Marsh, Newell, Blimp, and Birkdale Streets. (3) San Fernando Road between Fletcher Drive and the Pasadena Freeway.</td>
</tr>
<tr>
<td></td>
<td>Arterial green streets at San Fernando Road, Fletcher Drive, and Riverside Drive.</td>
</tr>
<tr>
<td></td>
<td>Local green streets at Gilroy, Newell, and Riverside Drive.</td>
</tr>
<tr>
<td>Paseos and Promenades</td>
<td>Paseos: Along Benedict and Birkdale Streets and Dogis Place.</td>
</tr>
<tr>
<td></td>
<td>Paseo promenades: Along Worthen and Eads Streets and Denby and Meadowvale Avenues.</td>
</tr>
<tr>
<td>Bikeways and Trails</td>
<td>Proposed routes are shown in Figure 2-20.</td>
</tr>
<tr>
<td>Pedestrian River Crossings and Bridge Underpasses</td>
<td>Pedestrian bridges: Multiuse bridges at Marsh, Newell, Blimp, and Birkdale Streets and to the south of Pasadena Freeway overpass.</td>
</tr>
<tr>
<td></td>
<td>Bridge Underpasses at Fletcher Drive, Glendale Freeway, Golden State Freeway, Pasadena Freeway, and North Broadway.</td>
</tr>
<tr>
<td>Gateways</td>
<td>Regional gateways at Fletcher and Riverside Drives.</td>
</tr>
<tr>
<td></td>
<td>Neighborhood gateways at Worthen and Eads Streets and Meadowvale Avenue.</td>
</tr>
<tr>
<td>Water Quality and Habitat</td>
<td>As above, the east bank of the river channel is terraced for approximately one mile to provide for water quality treatment, and the channel bottom is modified to provide riparian habitat (see also Parks, above). Habitat improvements at the confluence of the Arroyo Seco and the Los Angeles River.</td>
</tr>
<tr>
<td>Reinvestment</td>
<td>It is assumed that other Taylor Yard planning establishes land use on the east bank of the river. Emphasis is placed on green connections between the east and west banks of the river and to parks and neighborhoods. It is further assumed that market pressure will gradually cause replacement of west bank small industry with mixed-use development, in keeping with the river revitalization theme.</td>
</tr>
</tbody>
</table>
Figure 2-19
Open Space Measures for the Taylor Yard Concept
2.4.5 Chinatown-Cornfields Opportunity Area

This opportunity area is bounded on the north by the Metrolink Gold Line, on the east by Avenue 18, on the south by the Union Station Rail Line, and on the west by Spring Street/Alameda Street (Figure 2-20). Alternative CC-A figures are presented, followed by Alternative CC-B. For CC-A, Figure 2-21 shows open space measures for the CC-A concept. For CC-B, Figure 2-22 shows open space measures for the CC-B concept.
FIGURE 2-20
CHINATOWN-CORNFIELDS OPPORTUNITY AREA
Los Angeles River Revitalization Master Plan PEIR/PEIS

LEGEND
- Opportunity Area
- Roads
- Freeways
- Los Angeles River and Tributaries

N
W
S
E

Miles
0 0.125 0.25 0.5

Los Angeles County
City of Los Angeles
The two alternative sets of river channel modification, open space development, and reinvestment measures (Alternatives CC-A, CC-B) are presented in Table 2.4-4.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Alternative CC-A</th>
<th>Alternative CC-B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Channel Modifications</strong></td>
<td>The west bank of the river channel is terraced back along the river under the existing rail line to provide for a linear park. The east bank of the channel provides public access to the river's edge and an urban promenade (turf and shade trees) with a pedestrian and bicycle path along the top of the bank. Public access is provided via a 15-foot-wide walkway at the top of the west bank, with steps leading down to the water's edge.</td>
<td>Same as for Alternative CC-A, except a channel diversion would be created, allowing the creation of a small island that supports habitat and passive recreation (hiking, bird watching). The west edge of the diversion would transition from riparian to upland habitat and park.</td>
</tr>
<tr>
<td><strong>Parks</strong></td>
<td>Riverfront parks: (1) The Los Angeles State Historic Park is developed to extend north to the river edge.</td>
<td>Same as for Alternative CC-A.</td>
</tr>
<tr>
<td></td>
<td>Linear parks: (1) A continuous linear park open space loop from the western edge of the historic park, south along Llewellyn Street, and east along the Union Station Rail Line, connecting back to the terraced river linear park; (2) a linear park extending from the historic park southeast along the old Sotello/Leroy Street alignment; and (3) a linear park along Leroy and Elmyra Streets.</td>
<td>Same as for Alternative CC-A, except the above channel diversion introduces a secondary river channel creating a habitat and open space island that is lined on the west side of the river with riparian and upland habitat and open space.</td>
</tr>
<tr>
<td><strong>Green Streets</strong></td>
<td>Regional greenway connections: East/west streets between downtown and Lincoln Heights along Spring and Main Streets.</td>
<td>Same as for Alternative CC-A.</td>
</tr>
<tr>
<td></td>
<td>Arterial green streets: Along Broadway, Spring, and Main Streets.</td>
<td>Same as for Alternative CC-A.</td>
</tr>
<tr>
<td></td>
<td>Local green streets: Include all north/south and east/west primary local roads within the opportunity area boundary.</td>
<td>Same as for Alternative CC-A.</td>
</tr>
<tr>
<td><strong>Paseos and Promenades</strong></td>
<td>Paseos mid-block from northwest to southeast a half block south of Elmyra and Mesnager Streets, and along a realigned College Street.</td>
<td>Same as for Alternative CC-A.</td>
</tr>
<tr>
<td><strong>Bikeways and Trails</strong></td>
<td>Proposed routes are shown in Figure 2-22.</td>
<td>Proposed routes are shown in Figure 2-23.</td>
</tr>
<tr>
<td><strong>Pedestrian River Crossings and Bridge Underpasses</strong></td>
<td>Pedestrian bridges: Just upstream of Chavez Avenue.</td>
<td>Same as for Alternative CC-A.</td>
</tr>
<tr>
<td></td>
<td>Bridge underpasses at Spring Street, North Main Street, railroad overpasses, Chavez Avenue, and Hollywood Freeway.</td>
<td>Same as for Alternative CC-A.</td>
</tr>
<tr>
<td><strong>Gateways</strong></td>
<td>Regional gateways at Main, Leroy, and Elmyra Streets.</td>
<td>Same as for Alternative CC-A.</td>
</tr>
<tr>
<td></td>
<td>Neighborhood gateways: Include all other streets.</td>
<td>Same as for Alternative CC-A.</td>
</tr>
<tr>
<td><strong>Water Quality and Habitat</strong></td>
<td>As above, a linear park is developed, extending from the historic park southeast along the old Sotello/Leroy Street alignment.</td>
<td>Same as for Alternative CC-A.</td>
</tr>
<tr>
<td><strong>Re-Investment</strong></td>
<td>All properties within the opportunity area would be looked at as potential reinvestment areas, with the exception of the William Mead Housing Project and its associated school and the DWP transfer station. The reinvestment focus would be on creating residential/mixed-use frontage along Spring Street, mixed-use traditional Main Street, and residential frontage along the linear open space between the state park and the river. Existing lot and block structure would be continued to allow incremental redevelopment to use existing infrastructure where possible.</td>
<td>All properties within the opportunity area would be looked at as potential reinvestment areas, with the exception of the DWP transfer station, which may be relocated or incorporated into the island. The DWP property would be available for redevelopment. Redevelopment would be focused on revised parcelization based on river revitalization opportunities. A school and public housing would be redeveloped and relocated.</td>
</tr>
</tbody>
</table>
Figure 2-21
Open Space Measures for the CC-A Concept
Figure 2-22
Open Space Measures for the CC-B Concept

Legend
- Primary Arterial Green Streets
- Secondary Arterial Green Streets
- Primary Local Green Streets
- Secondary Local Green Street
- Riverside Streets
- Paseo Promenades
- Paseo
- Pedestrian/Bicycle Bridges
- Bridge Access Ramps
- Regional Gateways
- Neighborhood Gateways
- Infrastructure Gateways
- Bridge Underpasses
- OC
- River Outdoor Classrooms
- Street-End Cul-de-sac Parks
- Promenades
- Expanded Trails (Multi-Use & Bicycle)
- Multi-Use Trail Corridor
- Bike Path Corridor
2.4.6 **Downtown Industrial Opportunity Area**

The Downtown Industrial Opportunity Area is bounded on the north and east by the Santa Ana Freeway, on the south by the Santa Monica Freeway, and on the west by Alameda Street (Figure 2-23). Alternative DI-A figures are presented, followed by Alternative DI-B. For DI-A, Figure 2-24 shows open space measures for the DI-A concept. For DI-B, Figure 2-25 shows open space measures for the DI-B concept.
2. Description of Proposed Action and Alternatives

The two alternative sets of river channel modification, open space development, and reinvestment measures (Alternatives DI-A, DI-B) are presented in Table 2.4-5.

### Table 2.4-5
LARRMP Measures Comprising Downtown Industrial Opportunity Area Alternatives DI-A and DI-B

<table>
<thead>
<tr>
<th>Measure</th>
<th>Alternative DI-A</th>
<th>Alternative DI-B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Channel Modifications</strong></td>
<td>The river channel is opened up and terraced back in three locations on the east side to provide for small pocket parks and green street connections back into the community. On the west side, an urban promenade is created at the top of the bank, and the existing trapezoidal channel wall is reconfigured as a vertical wall. Public access is enhanced by locating rail on trestles at select locations and providing grade separated under crossings.</td>
<td>Same as for Alternative DI-A, except the east side of the channel would be terraced to provide water quality treatment and open space between the Santa Ana Freeway and 7th Street.</td>
</tr>
<tr>
<td>Parks</td>
<td>Linear parks: (1) a linear park created by realigning the two rail lines on the east side of the river to two innermost storage tracks along the eastern edge of the river and removing six storage tracks. Grade-separated crossings below the rail lines are developed at selected locations to provide access into the park.</td>
<td>Same as for Alternative DI-A, except a larger park would be developed between the eastern banks of the river and Mission Road, by realigning the two rail lines from the east side of the river to the west side or by burrowing the existing through tracks below ground. This park would be bounded on the north by the Santa Ana Freeway and on the south by 7th Street.</td>
</tr>
<tr>
<td>Parks</td>
<td>Pocket parks: (1) Created on the east side of the above-mentioned grade separated crossings within the industrial area, to provide additional open space to make up the necessary grades to accommodate the rail crossings. (2) At 3rd, Willow, and Jesse Streets.</td>
<td>Pocket parks: Created on the west side of Mission Road at the intersection of Gabriel Garcia Marquez Street, 3rd Street, 5th Street, 6th Street, and Jesse Street, to improve access to the new Riverfront Park.</td>
</tr>
<tr>
<td><strong>Green Streets</strong></td>
<td>Regional greenway connections at east/west streets between Downtown and Boyle Heights along 1st, 4th, 6th, and 7th Streets.</td>
<td>Same as for Alternative DI-A.</td>
</tr>
<tr>
<td><strong>Arterial green streets</strong></td>
<td>Along 1st, 4th, 6th, and 7th Streets.</td>
<td>Same as for Alternative DI-A.</td>
</tr>
<tr>
<td><strong>Local green streets</strong></td>
<td>All north/south and east/west primary local roadways within the opportunity area boundary.</td>
<td>Same as for Alternative DI-A.</td>
</tr>
<tr>
<td><strong>Paseos and Promenades</strong></td>
<td>Paseos: Every 400 feet in new developments.</td>
<td>Same as for Alternative DI-A.</td>
</tr>
<tr>
<td><strong>Bikeways and Trails</strong></td>
<td>Proposed routes are shown in Figure 2-25.</td>
<td>Proposed routes are shown in Figure 2-26.</td>
</tr>
<tr>
<td><strong>Pedestrian River Crossings and Bridge Underpasses</strong></td>
<td>Bridge underpasses at Hollywood Freeway, 1st, 4th, 6th, and 7th Streets and Santa Monica Freeway.</td>
<td>Same as for Alternative DI-A.</td>
</tr>
<tr>
<td><strong>Gateways</strong></td>
<td>Regional gateways at 1st and 6th Streets.</td>
<td>Same as for Alternative DI-A.</td>
</tr>
<tr>
<td><strong>Neighborhood gateways</strong></td>
<td>At 3rd and Willow Streets.</td>
<td>Same as for Alternative DI-A.</td>
</tr>
<tr>
<td><strong>Water Quality and Habitat</strong></td>
<td>As described in Parks above, a linear park on east side of river.</td>
<td>As described in Parks above, a linear park on east side of river.</td>
</tr>
<tr>
<td>Measure</td>
<td>Alternative DI-A</td>
<td>Alternative DI-B</td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Re-Investment</td>
<td>Underused properties within the opportunity area would be identified where new live-work units could be developed that reflect the existing character and use mix of the neighborhood. Existing industrial land uses would be protected. The rail line would be shifted to the easternmost rail lines to provide additional parkland adjacent to the river. The rail would be placed on trestles at select locations to improve access to parks.</td>
<td>Same as for Alternative DI-A, except (1) new mixed-use live-work residential properties would be located within the new open space with street frontage along Mission Road; (2) the rail lines along western edge of river would be consolidated; and (3) the inefficient industrial uses (in terms of jobs-per-square-foot) located between 7th Street, the Santa Monica Freeway, and the river would be transformed into a greater density of industrial jobs or residential live-work units.</td>
</tr>
</tbody>
</table>

Table 2.4-5
LARRMP Measures Comprising Downtown Industrial Opportunity Area Alternatives DI-A and DI-B

realigning the two rail lines from the east side of the river to the west side or by burying the existing through tracks below ground. See Parks above.
Figure 2-24
Open Space Measures for the DI-A Concept
Figure 2-25
Open Space Measures for the DI-B Concept
2.5 **Revitalization Management**

### 2.5.1 Introduction
As discussed in the LARRMP, the successful implementation of the LARRMP will require the collaboration and cooperation of the governing jurisdictions (City of Los Angeles, Los Angeles County, US Army Corps of Engineers) and the other agencies responsible for the safe and proper functioning of the Los Angeles River. A “river authority” is proposed in the LARRMP to coordinate the functions of these agencies. The LARRMP identified the need to provide guidance and leadership in implementing measures and developments within the River Corridor. Furthermore, the need was identified to create a nonprofit “river foundation” to raise funds to achieve the LARRMP revitalization goals and objectives. These key river revitalization management entities are described below, followed by a discussion of other revitalization management tools to help implement the LARRMP.

### 2.5.2 River Authority
The City, County, and Corps are responsible for the physical structures, safety, maintenance, operations, integrity, and water quality of the Los Angeles River ROW. As discussed in the LARRMP, these jurisdictions would join to form the Los Angeles River Authority and would be jointly responsible for the following:

- River operation and maintenance;
- Water quality;
- Public liability;
- Construction permitting;
- Regulatory compliance;
- River reconstruction; and
- River greenways and trails.

### 2.5.3 Revitalization Corporation
A nonprofit Los Angeles River Revitalization Corporation would be created with representative membership from willing business enterprises interested in helping develop a revitalized River Corridor. The boundary of the Revitalization Corporation’s jurisdiction would be approximately half a mile on each side of the river ROW. The Revitalization Corporation would have the following responsibilities:

- Guide the development of area plans along the River Corridor;
- Periodically review and revise development design standards and guidelines;
- Provide financing advice and tools to local districts; and
- Acquire land for parks and trails and economic development.

The Revitalization Corporation would be able to own and develop land and buildings, manage and operate facilities, and use legal funding measures and form partnerships to help implement the LARRMP.

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Revitalization Corporation – a nonprofit group to provide guidance and take the lead in implementing measures and developments within the River Corridor.
Furthermore, the Corporation would be empowered to bring together public and private financing for river-related and community revitalization projects. It would develop collaborative development plans for specific economic development projects using special districts and other available management tools, and would promote the establishment of partnerships between public, private, and nonprofit entities to help achieve LARRMP goals and objectives.

2.5.4 River Foundation
As discussed in the LARRMP, a not-for-profit Los Angeles River Foundation would be created by private individuals and private funding, with representation from the arts, the entertainment industry, corporations, and charity organizations. The main purposes of the River Foundation would be to develop financial assets to fund measures within the River Corridor to further environmental, educational, social, social justice, and sustainability interests of river-related communities. The Foundation would support and develop programs that were directly responsive to community needs and opportunities that evolved from river revitalization implementation. The boundaries of the foundation would not be restricted to the River Corridor, but its benefits would be directed at Los Angeles River revitalization, as described in the LARRMP.

2.5.5 Revitalization Management Tools
A variety of river revitalization management tools that would be available to the revitalization management entities are discussed in the LARRMP and are important to the successful implementation of the LARRMP goals and objectives. These additional tools include creating the River Improvement Overlay (RIO) District, developing public-ways and facilities design standards and guidelines, establishing guidelines and review procedures for future specific plans in the River Corridor, and developing future partnerships between key stakeholder agencies. These management tools are briefly described below.

River Improvement Overlay District
The RIO District would provide design standards and guidelines for all new development, private development projects and public facilities as well as arterial and collector streets that connect to the river within this district. The district boundary would typically include 500 feet on either side of the river, but in some locations the boundary would extend to areas where future revitalization opportunities have already been identified, such as the five opportunity areas, based on community planning.

Substantial compliance with the RIO District design standards and guidelines will be determined by a Department of City Planning (DCP) design review process for private development projects. Topics to be addressed in the review process shall include landscaping, stormwater management, building orientation, view corridors, paseos, exterior lighting, green building technology, setbacks, and signage.

Design standards and guidelines for public facilities and public ways would emphasize the following:

- Enhancement of water quality;
- Connections to and across the river;
- Landscape character that supports revitalization goals and objectives;

River Foundation – a not-for-profit group formed to raise funds to achieve the LARRMP revitalization goals and objectives.

River Improvement Overlay District – comprising a set of design standards guidelines to be applied for all private, multifamily properties abutting the river.
2. Description of Proposed Action and Alternatives

- Pedestrian, bicycle, and equestrian access to and use of the river;
- Public parks and open space adjacent to the river;
- Compatible public utility easements;
- Building location and orientation that supports revitalization;
- Directional and interpretive signs; and
- Public art.

Future Specific Plans
As part of the application process for future specific plans for lands near the river, planning guidelines would be proposed covering topics such as site plans, landscaping, stormwater management, site-lighting, building orientation, building setbacks, building density, parking lot lighting, green architecture, and signage. Although future implementation tools, such as specific plans and rezoning, may take place within the boundaries of the RIO District, the integrity and function of the RIO District are anticipated to be maintained.

2.6 Alternatives Evaluated in this PEIR/PEIS

2.6.1 Summary of Alternatives Evaluated in this PEIR/PEIS
In the preceding discussions of LARRMP measures within the River Corridor (including opportunity areas), the alternatives evaluated in this PEIR/PEIS were identified and described. Table 2.6-1 is a summary of the alternatives evaluated in this PEIR/PEIS and indicates the sections of this PEIR/PEIS document where each of the alternatives were previously described.

<table>
<thead>
<tr>
<th>Location</th>
<th>Alternative Evaluated</th>
<th>PEIR/PEIS Section Where Previously Described</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canoga Park Opportunity Area</td>
<td>Alternative CP-A</td>
<td>Section 2.4.2</td>
</tr>
<tr>
<td></td>
<td>Alternative CP-B</td>
<td>Section 2.4.2</td>
</tr>
<tr>
<td>River Glen Opportunity Area</td>
<td>Alternative RG-A</td>
<td>Section 2.4.3</td>
</tr>
<tr>
<td></td>
<td>Alternative RG-B</td>
<td>Section 2.4.3</td>
</tr>
<tr>
<td>Taylor Yard Opportunity Area</td>
<td>No Alternatives (Proposed Concept Only)</td>
<td>Section 2.4.4</td>
</tr>
<tr>
<td>Chinatown-Cornfields Opportunity Area</td>
<td>Alternative CC-A</td>
<td>Section 2.4.5</td>
</tr>
<tr>
<td></td>
<td>Alternative CC-B</td>
<td>Section 2.4.5</td>
</tr>
<tr>
<td>Downtown Industrial Opportunity Area</td>
<td>Alternative DI-A</td>
<td>Section 2.4.6</td>
</tr>
<tr>
<td></td>
<td>Alternative DI-B</td>
<td>Section 2.4.6</td>
</tr>
</tbody>
</table>

2.6.2 No Project Alternative
In addition to the alternatives listed in Table 2.6-1, the No Project Alternative is evaluated, in accordance with CEQA and NEPA requirements (CEQA Article 9, Sections 15126.6[e] and NEPA 40 CFR 1502.14[d]). For this PEIR/PEIS, under the No Project Alternative, the LARRMP measures described above would not be implemented. The No Project Alternative consists of what would be reasonably expected to occur in the
2. Description of Proposed Action and Alternatives

study area in the foreseeable future if the LARRMP measures were not implemented, based on current plans and consistent with available infrastructure and community services.

If the community-based measures and the governance structure presented in the LARRMP were not implemented, the short-term and long-term goals and objectives specific to the LARRMP would likely not be realized. However, the theme of revitalization of the Los Angeles River is also a prominent theme in other current environmental planning projects (see Section 1.7 of Chapter 1 of this PEIR/PEIS). This is especially true for the County of Los Angeles’ LA River Master Plan, prepared in 1996. Although the LARRMP is designed to enhance and expand upon the river revitalization goals and objectives inherent in the County’s LA River Master Plan, without the LARRMP, some of the river revitalization themes common to both plans would likely be realized under the County Master Plan, as well as the ongoing habitat restoration efforts of the US Army Corps of Engineers, in conjunction with the City of Los Angeles Bureau of Engineering and the Los Angeles Department of Water and Power. However, in the decade since completion of the County's Master Plan, there remains a need for the City of Los Angeles and its partnering jurisdictions along the river to share in comprehensive, multi-agency coordination efforts regarding public access to the river, safety, security, and maintenance. The LARRMP's proposed streamlined governance structure would coordinate river management and development--an improvement over localized river oversight practices and land use patterns. In addition, through the Plan, the City has an organizing principle to coordinate the implementation of longer-term, broader-scale river revitalization that would better serve residents within the River Corridor and the region.

Significantly, the LARRMP also brings forward new ways to realize the possibility of river restoration through the creation of new green spaces, such as parks and habitat, and through concrete removal that can support more significant environmental improvements. Should the Plan not be implemented, such changes would not take place in the near future. Also, should the Plan not be implemented, the five opportunity areas identified (Canoga Park, River Glen, Taylor Yard, Chinatown-Cornfields, and Downtown Industrial) would not receive comprehensive and concentrated attention and would not likely achieve such comprehensive river revitalization independently.

2.6.3 Environmentally Superior Alternative

Typically, the environmentally superior alternative as defined by CEQA should minimize adverse impacts to a project area and vicinity. Table 2.6-1 above identifies two alternatives that have been evaluated at each of four of the five opportunity areas within the River Corridor (Taylor Yard has one concept). A comparison of the alternatives evaluated for the other four opportunity areas indicates that in each case, Alternative A involves less construction, with less associated noise and air and water pollution, less disruption to existing biological resources, land use, and utilities, and less demand for new public services. Consequently, of the alternatives discussed in this PEIR/PEIS, the “A” Alternatives for the Canoga Park, River Glen, Chinatown-Cornfields, and Downtown Industrial Opportunity Areas provide the environmentally superior alternative.

2.7 Alternatives Considered but Not Evaluated in This PEIR/PEIS

During the process of developing the LARRMP, numerous locations along the 32-mile River Corridor were considered for establishing designated “opportunity areas” to demonstrate integrating different configurations of river channel modification, open space development, and reinvestment measures. The initial consideration of potential locations resulted in the selection of the following 20 “potential opportunity areas”:
• Canoga Park
• Reseda Boulevard
• Sepulveda Agricultural Area
• Sepulveda Basin
• Studio City - Coldwater Canyon to Whitsett
• Tujunga Wash Confluence
• Ventura Boulevard
• Weddington Park
• Spreading Grounds
• Ferraro Fields
• River Glen
• Taylor Yard
• Arroyo Seco Confluence
• Chinatown-Cornfields Area
• Mission Road Rail Yards
• Boyle Heights Connector
• Downtown Arts District
• Downtown Industrial Area
• Santa Fe Warehouse
• Sears / Crown Coach

Several of the 20 locations initially selected already have initiatives in progress to begin to transform the Los Angeles River, and it was hoped that the LARRMP could expand the revitalization effort, as well as add momentum to these initiatives. On this basis, the following criteria were developed to help guide the selection of a more focused number of opportunity areas within the River Corridor. These criteria were extensively discussed at public meetings held in numerous communities along the river:

• **Clean Water, Safe from Floods:** opportunity areas should be able to improve water quality, recharge groundwater, retain/enhance flood protection, and reduce flows in the channel.

• **Green the City:** opportunity areas should be able to create, expand, and connect wildlife habitat, parks, recreational/open space, and improve river aesthetics and visibility.

• **Build Community:** opportunity areas should be able to create multiple community benefits and economic reinvestment opportunities, reconnect neighborhoods, and improve environmental quality.

• **Create a Successful Plan:** opportunity areas should facilitate a successful LARRMP through cooperation and collaboration with other City-wide initiatives, pursuing/leveraging grant and bond monies, focusing on undervalued property and property in transition, and focusing on sites that may become
available in the near-term.

Subsequent analysis and extensive community discussion helped narrow the list of 20 areas down to nine areas. The nine areas from which the five focused opportunity areas evaluated in this PEIR/PEIS were derived included Canoga Park, Sepulveda Basin, Spreading Grounds, River Glen, Taylor Yard, Arroyo Seco Confluence, Chinatown-Cornfields, Mission Road Yard, and Downtown Industrial.

Through further interactive community and public discussions, review and use of the criteria, and additional site investigation, five opportunity areas were chosen for further design development in the LARRMP and evaluation in this PEIR/PEIS. The process of choosing the five focused opportunity areas for demonstrating selected configurations of LARRMP revitalization measures was guided by the following considerations:

- The selected opportunity areas should demonstrate ideas for all three river areas, as initially categorized by Los Angeles County’s 1996 River Master Plan. These include the San Fernando Valley, the Glendale Narrows, and the Downtown area.
- Opportunity areas should capture opportunities for “quick-wins” as well as for their potential to demonstrate a range of issues and opportunities to meet Plan goals. Therefore, industrial land, land that is currently going through transition, and areas with transportation/railway challenges, for example, would also be considered as examples of how best to address these types of challenging issues.
- The opportunity areas should show practicality by having initial phasing components as well as bold longer-term implementation potential demonstrating strong civic value.
- The opportunity areas should be highly visible and beneficial to City residents.
- Priority should be given to opportunity areas that would not otherwise proceed on their own compared to sites that are currently being pursued by related efforts. For example, the Spreading Grounds, Arroyo Seco, and the Sepulveda Basin Opportunity Areas all have ongoing restoration and open space efforts by the US Army Corps of Engineers with local partnerships.

The fact that the LARRMP has brought forward the five selected opportunity areas described in Chapter 2 of this PEIR/PEIS for implementation and evaluation at this time does not preclude the future development of revitalization measures at other locations within the River Corridor. If and when this takes place, subsequent CEQA and NEPA evaluation of future projects would be required.
CHAPTER 3
AFFECTED ENVIRONMENT

3.1 INTRODUCTION
This chapter presents an overview of the environmental setting of the Los Angeles River Corridor and the five opportunity areas. In accordance with CEQA and NEPA guidelines, the following resource areas are discussed:

- Agricultural resources;
- Air quality;
- Geology, soils, and seismic hazards;
- Hydrology, floodplains, and water quality;
- Mineral resources;
- Biological resources;
- Land use;
- Recreation;
- Noise;
- Public health and safety;
- Transportation;
- Utilities and infrastructure;
- Socioeconomics;
- Environmental justice;
- Cultural resources; and
- Aesthetic resources.

Potential impacts on the above-listed resource areas associated with implementing the LARRMP channel modification and open space measures are addressed in Chapter 4.

In keeping with the programmatic approach to impact analysis used in the PEIR/PEIS, the description of potentially affected resources in this chapter primarily takes a large-scale, region-wide view of existing conditions. Where appropriate to support the impact analysis, more detailed descriptions also are provided for specific resource areas. Site-specific CEQA/NEPA analysis would be prepared in the future to evaluate and document individual projects proposed for implementation under the LARRMP. Those project-level analyses would involve a more detailed description of the specific resources that could be affected by the proposed activities.
3.2 **AGRICULTURAL RESOURCES**

This section is a discussion of agricultural resources known to occur in the study area. Agricultural resources addressed in this PEIR/PEIS include Important Farmlands, designated by the California Department of Conservation as Prime Farmland, Unique Farmland, and Farmland of Statewide and Local Importance.

3.2.1 **General Resource Description**

The California Department of Conservation’s Division of Land Resource Protection (DLRP) works with landowners, local governments, consultants, Resource Conservation Districts and nonprofit organizations statewide to conserve the state’s agricultural resources. As part of this program, DLRP conducts the Farmland Mapping and Monitoring Program (FMMP) to maintain up-to-date land use data on California’s agricultural land resources. The FMMP categorizes land use as Prime Farmland, Unique Farmland, Farmland of State or Local Importance, Grazing Land, Urban Built-Up Land, and Other Land (DLRP 2004a). These land use categories are defined below.

3.2.1.1 **Prime Farmland**

*Prime Farmland* is that with the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date to get this designation.

3.2.1.2 **Farmland of Statewide Importance**

*Farmland of Statewide Importance* is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Like Prime Farmland, land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date to get this designation.

3.2.1.3 **Unique Farmland**

*Unique Farmland* is of lesser quality soils used for the production of the state’s leading agricultural crops. This land is usually irrigated but may include nonirrigated orchards or vineyards, as are found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date to get this designation.

3.2.1.4 **Farmland of Local Importance**

*Farmland of Local Importance* is land important to the local agricultural economy, as determined by each county’s board of supervisors and a local advisory committee. The adopted definition in Los Angeles County is for “producing lands that would meet the standard criteria for Prime or Statewide Importance, but are not irrigated.”

3.2.1.5 **Grazing Land**

*Grazing Land* is that on which the existing vegetation is suited for grazing livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.
3.2.1.6 Urban and Built-Up Land
Lands classified as Urban and Built-Up Land are occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land classification is used for residential, industrial, commercial, institutional, and public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

3.2.1.7 Other Land
This designation is used for lands not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines and borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

3.2.2 Affected Environment
The affected environment regarding potential effects on agricultural resources in the project area evaluated in this PEIR/PEIS includes the mile-wide River Corridor and the five opportunity areas defined in Chapters 1 and 2 of this PEIR/PEIS.

The Los Angeles County Important Farmland information indicates that the River Corridor is primarily classified as Urban and Built-Up Land (DLRP 2004b). GIS data for 2004-2005 from the FMMP indicates that Prime and Unique Farmlands exist on the grounds of Pierce College, to the southeast of the Canoga Park Opportunity Area in the Woodland Hills area (outside the LARRMP PEIR/PEIS study area). The same source information identifies Prime Farmlands to the south and the northeast of the Sepulveda Basin in the Encino area. These two agricultural areas are shown in Figure 3.2-1.

Agriculture was at one time a major activity in the San Fernando Valley, both upstream and downstream of Sepulveda Reservoir, but it declined sharply between 1946 and the early 1970s, as urban growth in the valley displaced the existing farmland. In its 1989 Water Control Manual for Sepulveda Basin, the Corps stated that it leased about 340 acres of Sepulveda Reservoir Land to commercial agriculture for production of corn, alfalfa, and other truck crops (Corps 1989). Current GIS data from the California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program indicates that there are now approximately 170 acres of prime farmlands around Sepulveda Basin (DLRP 2005a).

The LARRMP PEIR/PEIS study area contains no other lands designated as Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance.
FIGURE 3.2-1
PRIME AND UNIQUE FARMLANDS
Los Angeles River Revitalization
Master Plan PEIR/PEIS

LEGEND
- Opportunity Areas
- Los Angeles River Corridor
- Los Angeles River and Tributaries
- Developed
- Prime Farmland
- Unique Farmland
- Open Space
- Major Roads (within 2 miles)
- Freeways
3.3 Air Quality

This section is a discussion of relevant ambient air quality regulations and the air quality conditions in the project area.

3.3.1 Air Quality Standards

The US Environmental Protection Agency (USEPA) has established ambient air quality standards (AAQS) for several different pollutants, which often are referred to as criteria pollutants (ozone, nitrogen dioxide, carbon monoxide, sulfur dioxide, particulate matter, and lead). The federal AAQS are based primarily on evidence of acute and chronic health effects. Standards for particulate matter have been set for two size fractions: inhalable particulate matter (PM$_{10}$) and fine particulate matter (PM$_{2.5}$). The USEPA adopted an 8-hour ozone standard in 1997, and, after various legal challenges, the standard was upheld in 2002. Formal designations of areas violating the 8-hour ozone standard were issued in 2004, which revoked the previous federal 1-hour ozone standard for most parts of the country (including all of California) in June 2005.

California has adopted AAQS that are more stringent than the federal standards and that address additional pollutants not covered by federal AAQS. As is the case in many states, California’s AAQS are based primarily on health effects data but can reflect other considerations, such as protecting crops and materials or avoiding nuisance conditions, such as objectionable odors. Federal and California AAQS are presented in Table 3.3-1.

3.3.2 Air Quality Conditions in Project Area

The federal Clean Air Act requires each state to identify areas where the ambient air quality violates federal standards. States are required to develop, adopt, and implement a state implementation plan (SIP) to achieve, maintain, and enforce federal AAQS in these nonattainment areas. Deadlines for achieving the federal air quality standards vary according to air pollutant and the severity of the air quality problems. The SIP must be submitted to and approved by the USEPA. SIP elements are developed on a pollutant-by-pollutant basis whenever one or more air quality standard is being violated. The California Air Resources Board (CARB) is responsible for compiling and submitting the SIP to the USEPA. Local districts are responsible for preparing the portion of the SIP applicable within their boundaries (South Coast Air Quality Management District [SCAQMD] 2006).

The River Corridor and five opportunity areas lie within the South Coast Air Basin, which is managed by SCAQMD. Air quality problems in the South Coast Air Basin include periodic violations of federal and state air quality standards for ozone, PM$_{10}$, and PM$_{2.5}$. The frequency with which ozone standards have been exceeded has declined significantly over recent decades. Through the implementation of air quality management plans, violations of the federal 1-hour ozone standard dropped from over 150 days per year prior to 1990 to fewer than 50 days per year in most years since 1999, except for the year 2003 (SCAQMD 2005a). However, violations of the federal 8-hour ozone standard have been at least exceeded by 80 days since 1999 (SCAQMD 1999, 2004, 2005b). No violations of federal or state carbon monoxide standards have been recorded in the South Coast Air Basin since 2002.

Air basins in California with respect to federal AAQS are categorized as nonattainment, attainment (better than national standards), unclassified, or attainment/cannot be classified. The unclassified designation includes attainment areas that comply with federal standards, as well as areas for which monitoring data are lacking. Unclassified areas are treated as attainment areas for most regulatory purposes. Simple attainment
### Table 3.3-1  
Ambient Air Quality Standards

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Symbol</th>
<th>Averaging Time</th>
<th>Standard, as Parts Per Million</th>
<th>Standard, as Micrograms per Cubic Meter</th>
<th>Violation Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>California</td>
<td>National</td>
<td>California</td>
<td>National</td>
</tr>
<tr>
<td>Ozone</td>
<td>O₃</td>
<td>1 hour</td>
<td>0.09</td>
<td>---</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8 hours</td>
<td>0.70</td>
<td>0.08</td>
<td>137</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>CO</td>
<td>8 hours</td>
<td>9.0</td>
<td>9</td>
<td>10,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 hour</td>
<td>20</td>
<td>35</td>
<td>23,000</td>
</tr>
<tr>
<td>Inhalable particulate</td>
<td>PM₁₀</td>
<td>Annual arithmetic mean</td>
<td>---</td>
<td>---</td>
<td>20</td>
</tr>
<tr>
<td>matter</td>
<td></td>
<td>24 hours</td>
<td>---</td>
<td>---</td>
<td>50</td>
</tr>
<tr>
<td>Fine particulate matter</td>
<td>PM₂,₅</td>
<td>Annual arithmetic mean</td>
<td>---</td>
<td>---</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24 hours</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Nitrogen dioxide</td>
<td>NO₂</td>
<td>Annual arithmetic mean</td>
<td>---</td>
<td>0.053</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 hour</td>
<td>0.25</td>
<td>---</td>
<td>470</td>
</tr>
<tr>
<td>Sulfur dioxide</td>
<td>SO₂</td>
<td>Annual arithmetic mean</td>
<td>---</td>
<td>0.03</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24 hour</td>
<td>0.04</td>
<td>0.14</td>
<td>105</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 hour</td>
<td>---</td>
<td>0.5</td>
<td>---</td>
</tr>
<tr>
<td>Lead</td>
<td>Pb</td>
<td>Calendar quarter</td>
<td>---</td>
<td>---</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30-day average</td>
<td>---</td>
<td>---</td>
<td>1.5</td>
</tr>
<tr>
<td>Sulfates</td>
<td>SO₃</td>
<td>24 hour</td>
<td>---</td>
<td>---</td>
<td>25</td>
</tr>
<tr>
<td>Hydrogen sulfide</td>
<td>H₂S</td>
<td>1 hour</td>
<td>0.03</td>
<td>---</td>
<td>42</td>
</tr>
<tr>
<td>Vinyl chloride</td>
<td>C₂H₅Cl</td>
<td>24 hour</td>
<td>0.010</td>
<td>---</td>
<td>26</td>
</tr>
</tbody>
</table>

Sources: California Air Resources Board (CARB) 2006e, AAQS, 40 CFR Parts 50, 53, and 58

Designations generally are used only for areas that transition from a nonattainment status to an attainment status. Areas that have been reclassified from nonattainment to attainment of federal air quality standards are automatically considered maintenance areas, although this designation is seldom noted in status listings.

California classifies areas of the state as attainment, nonattainment, nonattainment-transitional, or unclassified with respect to the state AAQS. State and federal attainment status designations for the South Coast Air Basin are summarized in Table 3.3-2.
Table 3.3-2
Summary of Federal and State Attainment Status Designations for the South Coast Air Basin

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Averaging Time</th>
<th>Federal Designation</th>
<th>California Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ozone</td>
<td>1-Hour</td>
<td>No longer subject to standard</td>
<td>Nonattainment</td>
</tr>
<tr>
<td></td>
<td>8-Hours</td>
<td>Nonattainment – Severe 17</td>
<td>Unclassified</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>1-Hour</td>
<td>Nonattainment-serious</td>
<td>Attainment</td>
</tr>
<tr>
<td></td>
<td>8-Hours</td>
<td>Nonattainment-serious</td>
<td>Attainment</td>
</tr>
<tr>
<td>Nitrogen dioxide</td>
<td>Annual Average</td>
<td>Maintenance</td>
<td>Attainment</td>
</tr>
<tr>
<td></td>
<td>1-Hour</td>
<td>Not applicable</td>
<td>Attainment</td>
</tr>
<tr>
<td>Sulfur dioxide</td>
<td>Annual Average</td>
<td>Attainment</td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td>24-Hour</td>
<td>Attainment</td>
<td>Attainment</td>
</tr>
<tr>
<td></td>
<td>3-Hour</td>
<td>Attainment</td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td>1-Hour</td>
<td>Not applicable</td>
<td>Attainment</td>
</tr>
<tr>
<td>PM$_{10}$</td>
<td>Annual Average</td>
<td>Nonattainment-serious</td>
<td>Nonattainment</td>
</tr>
<tr>
<td></td>
<td>24-Hour</td>
<td>Nonattainment-serious</td>
<td>Nonattainment</td>
</tr>
<tr>
<td>PM$_{2.5}$</td>
<td>Annual Average</td>
<td>Nonattainment</td>
<td>Nonattainment</td>
</tr>
<tr>
<td></td>
<td>24-Hour</td>
<td>Nonattainment</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Lead</td>
<td>Calendar Quarter</td>
<td>No designation</td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td>30-Day</td>
<td>Not applicable</td>
<td>Attainment</td>
</tr>
<tr>
<td>Hydrogen sulfide</td>
<td>1-Hour</td>
<td>Not applicable</td>
<td>Unclassified</td>
</tr>
<tr>
<td>Sulfates</td>
<td>24-Hour</td>
<td>Not applicable</td>
<td>Attainment</td>
</tr>
<tr>
<td>Vinyl chloride</td>
<td>24-Hour</td>
<td>Not applicable</td>
<td>No designation</td>
</tr>
</tbody>
</table>

Sources: CARB 2004; USEPA 2006 Green Book of attainment status designations

The Severe-17 nonattainment designation for the federal 8-hour ozone standard indicates there is a 17-year deadline from the date of designation until the standard must be achieved.

The State and Local Air Monitoring Network Plan provides the results of the annual review of the air monitoring stations in California. These stations house monitoring instruments that measure ambient levels of air pollutants.

The closest air monitoring station to the Canoga Park Opportunity Area is Reseda Air Monitoring Station. Burbank West Palm Avenue Air Quality Monitoring Station is the one closest to the River Glen Opportunity Area, and Los Angeles-North Main Street Air Quality Monitoring Station is the station nearest the three downstream Opportunity Areas: Taylor Yard, Chinatown-Cornfields Area, and Downtown Industrial Opportunity Area. Table 3.3-3 presents the ambient air quality data for 2005 at these three air quality monitoring stations.

At the Reseda monitoring station, ozone levels were higher than the standard state and national levels for 2005. No violation of other air quality standards was reported at this station.

State and national ambient air quality standards for ozone were exceeded at the Burbank West Palm Avenue Station. Additionally, the national 24-hour PM$_{10}$ standard was exceeded for 92 days during 2005. No other air pollutants were reported in violation of the ambient air quality standards at Burbank West Palm Avenue Station.
### Table 3.3-3
Summary of 2005 Air Quality Data at Air Quality Monitoring Stations

<table>
<thead>
<tr>
<th></th>
<th>Reseda</th>
<th>Burbank West Palm Avenue</th>
<th>Los Angeles-North Main Street</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ozone</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest 1-hour</td>
<td>0.138</td>
<td>0.142</td>
<td>0.121</td>
</tr>
<tr>
<td>observation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National three-year</td>
<td>0.106</td>
<td>0.089</td>
<td>0.076</td>
</tr>
<tr>
<td>average of fourth highs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Carbon monoxide</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of days above</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>national standard</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of days above</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>state standard</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nitrogen dioxide</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of days above</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>state standard</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sulfur Dioxide</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of days above</td>
<td>-</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>national standard</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of days above</td>
<td>-</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>state standard</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PM$_{10}$</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimated days over</td>
<td>*</td>
<td>92</td>
<td>70</td>
</tr>
<tr>
<td>national 24-hour PM$_{10}$ standard</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PM$_{2.5}$</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State annual average</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Sources: CARB 2005a, 2005b, 2005c, 2005d, 2005e, 2005f, 2005g, 2005h, 2005i
All measurements are in parts per million.
*There was insufficient (or no) data available to determine the value.
- Not monitored in this station.

Ozone levels exceeded the state standard and were below the national standard at the Los Angeles-North Main Street Air Quality Monitoring Station. PM$_{10}$ was above the national standard for 70 days during 2005. No other pollutants violation was reported for 2005 at the Los Angeles-North Main Street Air Quality Monitoring Station.
3.4 Geology, Soils, Climate, and Seismic Hazards

In this section the geology and soils, climate, and seismic hazards in the LARRMP project area are discussed. A general description of these resources is presented first, followed by an overview of the existing conditions of these resources in the project area. The information on geology, soils, and seismic hazards is presented to provide a baseline for evaluating potential impacts of LARRMP revitalization measures and alternatives evaluated in this PEIR/PEIS. The discussion of climate in the study area is presented for information purposes, since potential future impacts on climate are not addressed in this PEIR/PEIS.

3.4.1 General Resource Description

3.4.1.1 Geology

The Los Angeles basin lies between the Transverse and Peninsular Ranges. It includes the portion of Los Angeles County south of the Santa Monica Mountains and most of Orange County. The Los Angeles basin was formed during the Neogene period (23 to 1.8 million years ago). Marine and alluvial sediments were deposited in the center of the basin (Harvard University Structural Geology Research Program and Harvard University Seismology 2006), with about 18,000 feet of sediment deposited over the last four million years (Harden 1998). Elevations in the watershed range from sea level to about 10,000 feet in the San Gabriel Mountains. Most of the coastal plain is at an elevation of about 1,000 feet.

The Los Angeles basin and downtown Los Angeles are south of the Santa Monica Mountains of the Peninsular Range, which extends from southern California to the southern tip of Mexico’s Baja California. The Santa Monica Mountains extend from the Hollywood Hills to Ventura County.

The northern and central portions of the City of Los Angeles lie within the Transverse Range Geomorphic Province, which has a unique east-west orientation. The northern portion of the city of Los Angeles includes the San Fernando Valley and portions of the surrounding Santa Susana Mountains, the San Gabriel Mountains, and the Verdugo Mountains. The Transverse Range extends eastward from the offshore Channel Islands in the Pacific Ocean to where it provides the boundary between the Mojave and Colorado Deserts. The Transverse Range lies in and is surrounded by the Angeles National Forest (Wikipedia 2006).

The San Fernando Valley, most of which is part of the northern section of the city of Los Angeles, is bounded by the Santa Susana Mountains to the northwest, the Simi Hills to the west, the Santa Monica Mountains to the south, the Verdugo Mountains to the east, and the San Gabriel Mountains to the northeast. The Los Angeles River originates in the San Fernando Valley. The parent material in the San Fernando Valley is derived from Miocene sedimentary rock consisting of siliceous and diatomaceous shale, siltstone, sandstone, and conglomerate. Santa Monica shale, an old and highly metamorphosed sediment, is along the southern side of the valley (SCS 1980).

3.4.1.2 Soils

The terminology used in this section reflects the original terminology from the 1980 soil survey for Los Angeles County. Soils on the alluvial plains coming down from Arroyo Calabasas and Bell Creek through Canoga Park down to US Interstate Highway 405 (I-405) are Cropley-Urban land and Urban land-Mocho-Conejo. Cropley-Urban land is very deep, nearly level to moderately sloping, well drained clays and urban land on alluvial fans, terraces, and plains. Soils are mainly formed in fine-textured alluvium derived from sedimentary rock. Cropley soils are well drained and consist of clay to a depth of 60 inches or more. Urban
lands are areas that have been used for roads, parking lots, housing, and other structures. Urban land has typically been altered by grading or imported fill (SCS 1980).

Urban land-Mocho-Conejo soils are very deep, nearly level to moderately sloping, well-drained loams and clay loams on alluvial fans and plains. Soils are mainly formed in medium textured and moderately fine-textured, recent alluvium and also derived primarily from sedimentary rock. Mocho soils are well drained and consist primarily of loam, but in some places they are stratified with coarser or finer textured material. Conejo soils are also well drained, but consist of clay (SCS 1980).

**Artificial Fill**
Most of the Los Angeles area has been highly developed. Lower depressional areas have been filled, and knolls and higher areas have been cut. Most of the soils have been disturbed due to grading and cut and fill practices. Fill was generally brought in and deposited along the major streams and river channels to fill in low lying areas and to channelize the river. Fill was also used in areas to raise the grade for the construction of roads, bridges, and railroads. In general, fill soils are brownish and consist of silty sands with gravel. However, fill material in the area range from clayey silt and silty clay, to angular gravel with sand (City of Los Angeles 2005).

**Recent Alluvium**
Alluvial deposits along the Los Angeles and San Gabriel Rivers and on the alluvial fans and floodplains are among the youngest surficial deposits in the Los Angeles area. Recent alluvial deposits are those stream and river deposits that are less than 10,000 years old (Holocene age). The San Fernando Valley and Los Angeles basin alluvium can be generally characterized as moderately dense mixtures of silt, sand, and gravel, with lesser amounts of clay. Alluvial deposits along the north side of the Santa Monica Mountains, the Los Angeles Narrows, Ballona Gap, and across the Los Angeles basin toward the Los Angeles Harbor were deposited by the Los Angeles River fluvial system. Second order stream deposits occur throughout the area in the upper reaches of coalescing alluvial fans and along the sides of the hills and mountains. Alluvial deposits consist primarily of silty sands, poorly graded to well-graded sands, and gravelly sands. These granular sediments were mostly deposited in the channels and along the banks of streams and rivers that feed into the alluvial basins. Lesser deposits of silt and clayey silt can be found in floodplain and in low areas subject to ponding.

Subsurface exploration and laboratory testing in the Los Angeles Narrows areas show the alluvial sands typically consist of a mixture of silt, sand, gravel, cobbles/boulders, and clay and occasional organic fragments. The gravels are described as very dense with varying amounts of sand, silt, and cobbles and boulders. At a number of locations, the coarse-grained soil is interlayered with fine-grained soils categorized as silts and clays. The silts are generally loose to very dense with varying amounts of sand and clay and occasional organic fragments (City of Los Angeles 2005).

**Older Alluvium**
Older alluvial soils, generally late Quaternary age, including nonmarine terrace deposits, can be found in uplifted areas around the edges of the San Fernando Valley and the Los Angeles basin. Boulders can be found in the alluvial soils, especially near drainage headlands near exposures of intrusive rocks (City of Los Angeles 2005).
3.4 Geology, Soils, Climate, and Seismic Hazards

**Lakewood Formation and San Pedro Formation**
These two formations are exposed around the edges of the Los Angeles basin. The San Pedro Formation, of the lower Pleistocene age, is often important as a source of freshwater and is usually associated with aquifers. The Lakewood Formation of the upper Pleistocene age includes terrace deposits, Palos Verdes Sand, Sunny Hills Formation, and other unnamed upper-Pleistocene deposits (both marine and continental). Lakewood Formation deposits along the Los Angeles River near Glendale are generally nonmarine and are similar to the overlying alluvial deposits. Upper Pleistocene alluvial deposits consist primarily of silty sands, poorly graded to well-graded sands, and lesser gravelly sands and gravel. Granular soils within the Lakewood Formation commonly have a greenish gray or olive color (City of Los Angeles 2005).

**Fernando Formation**
Formed from marine sediments, the Fernando Formations can be found underneath fluvial deposits of the Los Angeles River and alluvial fan deposits along the southern foothills of the Elysian Park and Repetto Hills (City of Los Angeles 2005). Fernando Formation is massive siltstone, sandstone, and conglomerate that can be found over Puente Formation (Lomar 1970).

**Puente Formation**
This formation consists generally of interbedded and interfingered sandstone, siltstone, shale, and rarely conglomerate and conglomeratic sandstone (Lomar 1970).

**Topanga Formation**
Bedrock of the Topanga Formation has been mapped at many locations within the Santa Monica Mountains and in the northern portion of the Verdugo Mountains. The formation consists mostly of interbedded conglomerate sandstone and very hard brown siliceous shale and siltstone (Lomar 1970).

**Santa Monica Slate**
The Santa Monica Slate is from the Pre-Upper Cretaceous. It forms brown-stained, gray-to-black intensely fractured and weathered exposures. Having a much longer and more complex structural history than the overlying Tertiary deposits, it is highly fractured and sheared. The slate is distinctly foliated with foliation parting surfaces at an orientation commonly subparallel to relict bedding. This structural character leads to unpredictable slope stability (City of Los Angeles 2005).

3.4.1.3 Climate
Los Angeles is in a semipermanent high-pressure zone of the eastern Pacific. The area has a mild climate tempered by cool sea breezes with light average winds. Summers are warm, and winters are mild with infrequent rainfalls, light winds, and moderate humidity. The surrounding mountains contribute to the variation in rainfall, temperature, and winds.

The Los Angeles basin experiences frequent temperature inversions, preventing the mixing of air. During the summer, air quality problems are due to the interactions between the ocean surface and the lower layer of the atmosphere. This creates a cool moist marine layer trapped under a warm air mass. Temperature inversions, along with the mountains acting as a barrier, trap pollutants in the basin.

The basin’s mountains and hills contribute to the variation in precipitation, temperature, and wind. Within the inland portions of the city of Los Angeles, the average wind speed, as recorded at the Downtown Los
3.4 Geology, Soils, Climate, and Seismic Hazards

The annual average temperature from 1944 through 2005 was 63° F. The average winter temperature is 57° F and the average summer temperature is 68° F. Total precipitation in Los Angeles averaged just over 12 inches annually between 1945 through 2004, with a low annual average of 3.2 inches in 1946, and a high annual average of 29.5 inches in 1983. Precipitation occurs mostly during the winter and relatively infrequently during the summer. Precipitation averages about seven inches during the winter and less than an inch during the summer (City of Los Angeles 2005).

3.4.1.4 Seismic Faults and Other Geological Hazards

Geologic hazards include surface rupture, ground shaking, ground failure, tsunamis, landslides, and mudflows. Southern California is in a very active zone, with about 30 earthquakes happening each day, most of which with a Richter magnitude below 2.0. The last appreciable earthquake in the Los Angeles area was in January 1994, the Northridge Earthquake of the San Fernando Valley, with a magnitude of 6.7. Earthquakes are considered a high priority hazard in the County of Los Angeles. Earthquakes can have devastating effects and include loss of life, fires, utilities and property damage, and economic impacts. Table 3.4-1 is a summary of historic earthquakes in the project vicinity. Figure 3.4-1 illustrates the major geologic hazard zones in the area.

### Table 3.4-1
Historic Earthquakes of Southern California (County of Los Angeles 2005)

<table>
<thead>
<tr>
<th>Year</th>
<th>Date</th>
<th>Location</th>
<th>Time</th>
<th>Richter</th>
<th>Mercalli</th>
<th>Deaths &amp; Property Damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1769</td>
<td>Jul 28</td>
<td>LA Area</td>
<td>--</td>
<td>6.0</td>
<td>VIII</td>
<td>No information.</td>
</tr>
<tr>
<td>1812</td>
<td>Dec 8</td>
<td>LA Area</td>
<td>3:00 PM</td>
<td>7.0</td>
<td>VII</td>
<td>40 deaths; Mission San Juan Capistrano severely to moderately damaged. Mission San Gabriel moderately damaged.</td>
</tr>
<tr>
<td>1827</td>
<td>Sep 24</td>
<td>LA Area</td>
<td>4:00 AM</td>
<td>5.5</td>
<td>--</td>
<td>No information.</td>
</tr>
<tr>
<td>1855</td>
<td>Jul 11</td>
<td>LA Area</td>
<td>4:15 AM</td>
<td>6.0</td>
<td>VIII</td>
<td>Bells of Mission San Gabriel torn down. 26 buildings damaged in LA.</td>
</tr>
<tr>
<td>1857</td>
<td>Jan 9</td>
<td>Fort Tejon</td>
<td>4:24 PM</td>
<td>7.9</td>
<td>IX</td>
<td>2 deaths; heavy property damage and loss.</td>
</tr>
<tr>
<td>1916</td>
<td>Oct 23</td>
<td>Tejon Pass Region</td>
<td>2:44 PM</td>
<td>5.3</td>
<td>--</td>
<td>No information.</td>
</tr>
<tr>
<td>1933</td>
<td>Mar 10</td>
<td>Long Beach</td>
<td>5:54 PM</td>
<td>6.4</td>
<td>IX</td>
<td>120 deaths; $50 million.</td>
</tr>
<tr>
<td>1941</td>
<td>Oct 21</td>
<td>Torrance-Gardena</td>
<td>10:57 PM</td>
<td>4.8</td>
<td>VII</td>
<td>No deaths; $100,000.</td>
</tr>
<tr>
<td>1941</td>
<td>Nov 14</td>
<td>Torrance-Gardena</td>
<td>12:42 AM</td>
<td>4.8</td>
<td>VIII</td>
<td>No deaths; $1 million.</td>
</tr>
<tr>
<td>1951</td>
<td>Dec 25</td>
<td>San Clemente Island</td>
<td>4:46 PM</td>
<td>5.9</td>
<td>--</td>
<td>No deaths; no appreciable damage.</td>
</tr>
<tr>
<td>1971</td>
<td>Feb 9</td>
<td>San Fernando</td>
<td>6:01 AM</td>
<td>6.6</td>
<td>--</td>
<td>65 deaths; $505 million.</td>
</tr>
<tr>
<td>1979</td>
<td>Jan 1</td>
<td>Malibu</td>
<td>3:15 PM</td>
<td>5.2</td>
<td>--</td>
<td>No deaths; minor damage.</td>
</tr>
<tr>
<td>1987</td>
<td>Oct 1</td>
<td>Whittier-Narrows</td>
<td>7:42 AM</td>
<td>5.9</td>
<td>--</td>
<td>8 deaths; $358 million.</td>
</tr>
<tr>
<td>1988</td>
<td>Dec 3</td>
<td>Pasadena</td>
<td>11:38 PM</td>
<td>5.0</td>
<td>--</td>
<td>No deaths; no appreciable damage.</td>
</tr>
<tr>
<td>1989</td>
<td>Jan 19</td>
<td>Malibu</td>
<td>10:38 PM</td>
<td>5.0</td>
<td>--</td>
<td>No deaths; slight damage.</td>
</tr>
<tr>
<td>1989</td>
<td>Jun 12</td>
<td>Montebello</td>
<td>9:57 AM</td>
<td>4.6</td>
<td>--</td>
<td>No deaths; no appreciable damage.</td>
</tr>
<tr>
<td>1991</td>
<td>Jun 28</td>
<td>Sierra Madre</td>
<td>7:44 AM</td>
<td>5.8</td>
<td>--</td>
<td>2 deaths; $40 million.</td>
</tr>
<tr>
<td>1994</td>
<td>Jan 17</td>
<td>Northridge</td>
<td>4:31 AM</td>
<td>6.7</td>
<td>--</td>
<td>61 deaths; est. $20 billion.</td>
</tr>
<tr>
<td>2001</td>
<td>Sep 9</td>
<td>SE of West Hollywood</td>
<td>4:59 PM</td>
<td>4.2</td>
<td>--</td>
<td>No deaths; moderate damage.</td>
</tr>
</tbody>
</table>
Faults

A fault is a fracture in the crust of the earth along which rocks on one side have moved relative to those on the other side. Most faults are the result of repeated displacements over a long period of time. The California Alquist-Priolo Earthquake Fault Zoning Act defines an active fault as one that has ruptured in the last 11,000 years. The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures with human occupancy (California Geologic Survey 2006).

The San Andreas Fault, which forms the boundary between the North America and Pacific Tectonic Plates, is the most significant fault in the area. The fault extends for about 800 miles from the northern tip of the Gulf of California to the Mendocino triple junction west of San Francisco. (Harden 1998). It is about 60 miles northwest of Los Angeles and runs along the base of the San Bernardino and San Gabriel Mountains.

In addition to the San Andreas Fault, the Los Angeles basin contains numerous active faults. The Elysian Park Fault is a blind reverse fault that extends approximately 12 miles through the Elysian Park-Repetto Hills from about Silverlake on the west to the Whittier Narrows on the east. Blind thrust faults are those that do not and never have extended upward to the surface of the earth. The Elysian Park anticline forms a segment of the southern boundary of the Transverse Ranges and has an estimated time-average rate of slip of 0.8 to 2.2 millimeters per year (mm/year) (Oskin et al. 2000).

The Raymond Fault is about 16 miles long, with a slip rate of between 0.10 and 0.22 mm/yr. Nearby communities include San Marino, Arcadia, and South Pasadena (Southern California Earthquake Data Center 2006). The Raymond Fault forms the eastern portion of the Santa Monica Mountains Frontal Fault System and extends from western Hollywood east to Pasadena. The fault runs east-west across the Los Angeles Narrows (City of Los Angeles 2005).

The Hollywood Fault is about 9.3 miles long and has a slip rate of between 0.33 mm/yr and 0.75 mm/yr. Nearby communities include Hollywood, Beverly Hills, and Glendale. The eastern part of the Hollywood Fault zone extends along the base of the Santa Monica Mountains, near Los Feliz Boulevard. From there, the fault trends eastward across the alluvial deposits of the Los Angeles River in the Atwater area. It can be considered a westward extension of the Raymond Fault and runs parallel to the Santa Monica Fault (Southern California Earthquake Data Center 2006).

The San Fernando Fault is about 10.5 miles long and runs from the area of Big Tujunga Canyon north to the San Fernando Valley. The slip rate is not well known but is believed to be about 5 mm/yr. The last major rupture was February 9, 1971, and is known as the Sylmar or San Fernando Earthquake. The quake had a magnitude of 6.6. The rupture was roughly 12 miles long, with a maximum slip of six feet (Southern California Earthquake Data Center 2006).
FIGURE 3.4-1
GEOHAZARDS
Los Angeles River Revitalization Master Plan PEIR/S

LEGEND
- Los Angeles Faults
- Landslide Zones
- Liquefaction Zones
- Opportunity Areas
- Los Angeles River Corridor
- Los Angeles River and Tributaries
- Freeways

City of Los Angeles
Los Angeles County
3.4 Geology, Soils, Climate, and Seismic Hazards

**Ground Shaking**
Ground shaking is the motion of the earth caused by a seismic event. It is the primary cause of earthquake damage. The intensity of the ground shaking is related to the magnitude of the earthquake, type of fault, and distance from the epicenter. Buildings on poorly consolidated and thick soils will typically see more damage than buildings on consolidated soils and bedrock. Areas near major active faults will generally experience stronger seismic shaking more frequently (County of Los Angeles 2005).

**Liquefaction**
Liquefaction is caused when the ground shakes wet granular soil and it changes to more of a liquid state and becomes unstable. Areas with high groundwater, saturated loose sands, and silty sands within 50 feet of the ground surface are most susceptible to liquefaction.

**Landslides**
Landslides are rated a moderate priority natural hazard in Los Angeles County. The geologic setting of the Los Angeles area is conducive to landslides, especially along hillsides. Factors that affect slope-failure, and thus a landslide, are slope angle, substrate, climate (for example, rainfall), and seismic shaking. Mudslides due to heavy precipitation are more localized in small gullies. These are typically shallow landslides, where the surface material becomes saturated and begins to flow downhill, taking vegetation and buildings with it. Debris flows are known to start on slopes as low as 15 degrees but are more likely to develop on steeper slopes. Landslides can also be triggered by seismic events, causing the soils to lose their stability and possibly to liquefy (County of Los Angeles 2005).

Slope failures were instrumental in Los Angeles being one of the first municipalities in the nation to adopt hillside-grading ordinances. Rapid uplift of the mountainous areas of Los Angeles from past and ongoing tectonic movements give rise to a geologic setting conducive to mass wasting. The variable nature of sediments and rocks exposed throughout Los Angeles, and the slope conditions created by uncontrolled grading, have led to frequent landslides (County of Los Angeles 2005).

Hillside areas of Los Angeles, especially the central and eastern Santa Monica Mountains, have geologic and topographic conditions that are conducive to the development of landslides. The City of Los Angeles Department of Building and Safety regulates construction and development in hillside areas Angeles. As part of the City of Los Angeles Building Code and review process, the city has established a hillside ordinance, which specifies that a geologic report is required for proposed construction within hillside areas (City of Los Angeles 2005).

**Tsunami Hazard**
Tsunamis are not considered a risk in the project area due to its distance from the coast. The immediate coastal areas are at greatest risk of inundation, largely from tsunamis that might be generated from earthquakes.

3.4.2 Affected Environment

3.4.2.1 River Corridor
The Los Angeles River flows through the San Fernando Valley, making a turn at Griffith Park and heading south toward downtown Los Angeles. The valley is filled with alluvial sediments from the surrounding
3.4 Geology, Soils, Climate, and Seismic Hazards

mountains, containing silt, sand, and gravel. The river crosses numerous faults to include the Hollywood Fault and the Elysian Park Fault.

Based on a review of the California Division of Mines and Geology Seismic Hazard Zones Maps, most of the River Corridor, from Canoga Park down to just south of where US Highway 101 (Hollywood Parkway) crosses the river, is in a liquefaction zone (Figure 3.4-1). The designation is “Areas where historic occurrence of liquefaction, or local geological, geotechnical, and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.”

From Canoga Park west to I-405, the liquefaction zone is more extensive on the southern side of the river. From I-405 west to the Griffith Park bend at I-5, the liquefaction zone extends more to the north of the river. The liquefaction zone through the Glendale Narrows down through the Chinatown-Cornfields Opportunity Area is rather narrow and confined.

Along the south side of the river, from I-405 around the bend at Griffith Park through the Glendale Narrows, is designated as an earthquake-induced landslide zone. The designation is “Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.”

Based on a review of the Alquist-Priolo Earthquake Fault Zones Maps issued by the California Department of Conservation, Division of Mines and Geology, the nearest fault zone to the river in the study area is about two miles to the west of the Taylor Yard Opportunity Area at York Boulevard toward Highland Park.

3.4.2.2 Canoga Park Opportunity Area

The Canoga Park Opportunity Area begins at the junction of Arroyo Calabasas and Bell Creek and goes west to De Soto Avenue. Soils at the site are mapped as Yolo association, which occur on alluvial fans, are over 60 inches deep, are well drained, and have moderate subsoil permeability. They have grayish-brown, medium acid, and slightly acid, loam surface layers about 18 inches thick, underlain by a grayish-brown neutral loam, near silt loam subsoil about 18 inches thick (SCS 1969).

The site is in a mapped liquefaction zone. See Figure 3.4-1 above.

3.4.2.3 River Glen Opportunity Area

As the river makes its way around Griffith Park and turns south, the soils immediately adjacent to the river are alluvium (silt, sand, and gravel). This area also includes imported fill from channelization of the river and past construction. Just to the west, soils are predominantly old alluvium (silt, sand, and gravel, forming dissected alluvial plain and alluvial terrace deposits). The mapped soils are of the Tujunga-Soboba Association (SCS 1969). Tujunga soils are over 60 inches deep, are somewhat excessively drained, and have rapid subsoil permeability. They have brownish-gray or grayish-brown sand or loamy fine sand surface layers, underlain by grayish-brown neutral loam, near silt loam subsoil about 18 inches thick (SCS 1969).

Soboba soils are also over 60 inches deep, are excessively drained, and have very rapid subsoil permeability. They have pale-brown, neutral cobbly very fine sandy loam surface layers about three inches thick, underlain by fine
sandy loam surface layers about three inches thick, underlain by pale-brown and light brownish-gray very cobbly loamy coarse sand. In many places in this area, bedrock is shallow and often exposed.

Most of the River Glen Opportunity Area is in the designated liquefaction potential zone. The zone extends westward across the site to about the railroad tracks (Figure 3.4-1). The nearest fault is immediately across the river and I-5 (Figure 3.4-1).

Based on a review of the Alquist-Priolo Earthquake Fault Zones Maps issued by the California Department of Conservation, Division of Mines and Geology, the nearest fault zone is about two miles to the west at York Boulevard, toward Highland Park.

3.4.2.4 Taylor Yard Opportunity Area
The Glendale Narrows, which the Taylor Yard Opportunity Area is in, is an alluvium-filled valley, with soils consisting of highly permeable silt, sand, and gravel. Most of the site is covered with a layer of fill material to a depth of approximately seven feet. Underneath the fill materials lie sands, silty sands, and discontinuous clayey sands from seven feet below ground surface (bgs) to 35 feet bgs. Below 35 feet bgs, sediments transition from coarse sand to cobble, with some clay and silt zones (State Coastal Conservancy 2002, cited in CDPR 2005b).

Immediately to the west is the district of Mount Washington, which is built on sandstone well bedded, medium to coarse grained, light brown to gray. On the east side of I-5, is Elysian Park, which is also mapped as well-bedded sandstone.

Underlying the alluvium is sandstone and undifferentiated sedimentary rocks, which approach the surface at the Elysian Park Anticline. Soils are mapped as the Tujunga-Soboba and the Hanford Associations (SCS 1969). The Hanford Associations are to the west of the Tujunga-Soboba on gently sloping alluvial fans. Hanford soils are over 60 inches deep, are well drained, and have moderately rapid subsoil permeability. They have pale brown coarse sandy loam surface layers about eight inches thick, underlain by light yellowish-brown coarse sandy loam and gravelly loamy coarse sand substratum. Typically, they are slightly acid to mildly alkaline throughout.

There are two active faults within the immediate vicinity of the Taylor Yard Opportunity Area, but the site is not within an Alquist-Priolo Special Studies Zone (CDPR 2005b). The Raymond Fault is about three-quarters of a mile to the northwest, while the Elysian Park Fault lies immediately to the southwest of the Opportunity Area on the west side of I-5. The Elysian Park Anticline rounds through the southern portion of the Opportunity Area. Based on the state seismic hazard zone maps, the site is in an area of liquefaction potential. This is due to the high water table and soils conditions.

3.4.2.5 Chinatown-Cornfields Opportunity Area
At the Chinatown-Cornfields Opportunity Area the soils along the river are mapped as alluvium. Immediately south of the San Bernardino Freeway and west of the river are alluvial terrace and dissected alluvial plain deposits. The soils are in the Hanford Association, as discussed above for Taylor Yard. Soils consist of silts and silty sand underlain with intermixed sand, gravel, and cobble layers. Site-specific investigations indicate that about the upper 40 inches consist of artificial fill of varying consistency (Greenwood and Associates 2003, cited in California Department of Parks and Recreation 2005a). Native alluvium is approximately 40
inches bgs and is composed of light brown to medium brown/orange sand, with intermediate gravel and cobble layers. Weathered sandstone bedrock (Puente Formation) is at depths ranging from 10 to 22 feet, or deeper, based on location.

The nearest fault to the Chinatown-Cornfields Opportunity Area is the Elysian Park blind thrust fault, which is about a mile to the northeast. Blind thrust faults occur due to compressional forces. During an earthquake, the fault breaks at depth, but there is no surface rupture, just squeezing and uplift of the ductile rocks, resulting in the formation of anticlinal structures, such as the Elysian Park Hills Anticline (CDPR 2005a).

Based on the California seismic hazard zone maps, the site has the potential for liquefaction (Figure 3.4-1). The site is not within an Alquist-Priolo Earthquake Fault Zone for surface fault rupture hazards. Therefore, the potential for surface rupture due to fault plane displacement propagating to the surface is considered low (CDPR 2005a).

3.4.2.6 Downtown Industrial Area Opportunity Area
Most of the downtown area is mapped as recent alluvium soils. As with the Chinatown-Cornfields and Taylor Yard Areas, these are of the Hanford Association. Immediately to the west, the soils are of the Ramona-Placentia Association. Ramona soils in the Los Angeles basin are over 60 inches deep, are well drained, and have slow subsoil permeability. They are characterized by brown to reddish-brown, heavy loam, loam, or sandy loam surface layers about 18 inches thick. Subsoils are brown to reddish-brown, dense clay loam or clay about 30 inches thick. Some subsoils may be stratified beds of silt to sand. Placentia soils are 18 inches deep and moderately well drained and have very slow subsoil permeability. They are characterized by brown to reddish-brown loam or sandy loam surface layers abruptly underlain by a dense, dark reddish-brown, clay loam subsoil at about 18 inches. The substratum occurs at about 48 inches and is brown loam (SCS 1969).

Based on a review of the California seismic hazard zone maps, the Downtown Industrial Opportunity Area is not within a liquefaction potential zone. The liquefaction zone that follows the river ends just south of US Highway 101 (Figure 3.4-1).
3.5 HYDROLOGY, FLOODPLAINS, AND WATER QUALITY

This section is a discussion of the hydrology, floodplains, and water quality in the LARRMP project area. A general description of these resources is presented first, followed by an overview of the conditions of these resources in the project area, presented to provide a baseline for evaluating potential impacts of project components and alternatives evaluated in this PEIR/PEIS.

3.5.1 General Resource Description

3.5.1.1 Hydrology

The Los Angeles River begins where Arroyo Calabasas and Bell Creek converge in Canoga Park. The river travels about 51 miles, making its way east to Griffith Park and then heading south through the Glendale Narrows, past downtown Los Angeles to where it empties into Long Beach Harbor. The Los Angeles River watershed is 834 square miles (533,760 acres) and has diverse patterns of land use. The upper portion, approximately 360 square miles, is covered by forest or open space, while the remaining watershed is highly developed with commercial, industrial, and residential uses (LADPW 2006a). The river and most of its tributaries in the urbanized portions of the Los Angeles basin have been channelized. The river can be considered more of a flood damage reduction channel, as opposed to a meandering natural river system, with nearly all of its banks hardened and the river bottom lined with concrete for approximately 37 of its 51 miles.

Arroyo Calabasas and Bell Creek merge at Canoga Park High School (Figure 3.5-1). Arroyo Calabasas drains the southwest corner of the San Fernando Valley. It begins in Dry Canyon along Old Topanga Canyon Road and Mulholland Highway. The only seminatural riparian section is a mile-long reach midway between Mulholland Highway and the Ventura Freeway, below which the channel is concrete lined (FoLAR 2006). This riparian section is outside the study area for this PEIR/PEIS.

Bell Creek begins in Ventura County and drains the southeast side of the Simi Hills. A more natural portion of the creek is within Bell Canyon Park, between the residential developments in Ventura County, down to a debris basin near Valley Circle Boulevard. The creek channel is paved below the debris basin (FoLAR 2006). Bell Creek is listed as impaired under the Clean Water Act 303(d) due to high coliform counts.

The Santa Susana Wash and Brown’s Canyon Wash converge near the intersection of Parthenia Street and Eton Avenue. Santa Susana Wash drains the area up toward Chatsworth Reservoir, and Brown’s Canyon Wash originates near SR-118. The wash continues to flow south until it converges with the Los Angeles River at Mason Avenue. The washes are in a concrete-lined channel in the developed/residential areas.

Continuing east along the Los Angeles River, the next tributary is Aliso Canyon Wash near Wilbur Avenue. This is followed by Caballero Creek, which comes from the south and drains into the Los Angeles River at Lindley Avenue. Aliso Canyon Wash is listed as impaired under the Clean Water Act 303(d) due to selenium.

The river then enters the Sepulveda Flood Control Basin, which is northwest of the intersection of the 405 and 101 Freeways. The Sepulveda Dam was constructed in 1941 and is owned, operated, and maintained by the Corps (Figure 3.5-2). The project collects flood runoff from the drainage areas upstream, stores it temporarily, and then releases it so as not to exceed the downstream channel capacity. The gross storage at the spillway crest is 17,425 acre-feet, and the area at the top of the raised spillway gates is 1,335 acres (Corps...
Figure 3.5-1
Channelized portions of Arroyo Calabasas and Bell Creek converging to form the Los Angeles River at Canoga Park High School

2006b). The area serves as a regional recreational facility and includes a community garden center, a 225-acre wildlife reserve, a lake, an amphitheater, a dog park, a sports center, golf courses, and trails. The City of Los Angeles is proposing to build a sports complex within the basin, including ball fields, trails, and a supporting building (See Section 3.9, Recreation).

There are a number of smaller drainages that enter the Sepulveda Basin and the Los Angeles River as it continues to make its way east. The next major tributary is the Tujunga Wash. The Big Tujunga and the Little Tujunga Wash begin in the San Gabriel Mountains and come together at Hansen Flood Control Basin, which is maintained and operated by the Corps. The channelized portion of the Tujunga Wash begins at the dam and extends nine miles before emptying into the Los Angeles River in Studio City at Colfax Avenue. Pacoima Wash, which has two dams and three spreading grounds, drains into the Tujunga Wash near Roscoe Boulevard and Sheldon Street. The Tujunga Wash watershed is 225-square miles and includes the city of San Fernando and the communities of Pacoima, Arleta, Sylmar, Sunland, Tujunga, Panorama City, Van Nuys,
North Hollywood, Valley Glen, Valley Village, and Studio City. Within the watershed, there are four dams, 16 debris basins, and five spreading ground facilities (River Project 2005). Hansen Flood Control Basin is used for recreation and supports diverse and valuable habitats. There are several ponds within the basin, many of which were formed from past mining activities. Tujunga Wash from Hansen Flood Control Basin down to the Los Angeles River is listed as impaired under the Clean Water Act 303(d) due to ammonia, copper, high coliform counts, odors, scum/foam-unnatural, and trash.

At the Hollywood Freeway (US Highway 101), the Central Branch of the Tujunga Wash converges with the Los Angeles River, which continues east and turns south around the Hollywood Hills at Griffith Park. This area begins what is known as the Glendale Narrows. Just before the Los Angeles River turns south, at the Los Angeles Equestrian Center, it is joined by the Burbank Western Branch. The bottom of the river channel from the convergence with the Burbank Western Branch downstream to the southern end of the Taylor Yard Opportunity Area near Highway 110 is not lined with concrete and is composed primarily of rocks and rubble. The bottom of the river in this reach, a distance of approximately 6.3 river miles, was not lined due to the presence of shallow groundwater and bedrock.

The Burbank Western Branch is listed as impaired under the Clean Water Act 303(d) due to algae, ammonia, cadmium, odors, scum/foam-unnatural, and trash. Gravel bars and riparian vegetation begin to appear at this point in the Los Angeles River. As the river bends around the Ferraro Soccer Complex, the Verdugo Wash enters it from the east. Verdugo Wash begins in the hills above Oakmont Country Club, making its way to the Los Angeles River where the Ventura Freeway (134) crosses the river (Figure 3.5-3). From the country club,
3.5 Hydrology, Floodplains, and Water Quality

As the Los Angeles River makes its way through the Glendale Narrows, there is riparian vegetation, most of which is nonnative invasives, and numerous gravel bars until about the southern crossing of the Golden State Freeway (I-5). The Arroyo Seco converges with the Los Angeles River just south of this crossing at the Pasadena Freeway (110) Bridge. Arroyo Seco is 22 miles long and begins in the mountainous terrain of the Angeles National Forest. The creek flows through the communities of La Canada Flintridge, Altadena, Pasadena, South Pasadena, and Northeast Los Angeles. The watershed is about 47 square miles. The upper watershed is in the Angeles National Forest and is managed for recreation, watershed protection, and wildlife conservation. Devil’s Gate Dam, which was built in 1920, is located at Hahamongna-Watershed Park. The Los Angeles County Department of Public Works owns and operates the dam. Most of the stream is channelized from the dam down to its confluence with the Los Angeles River. The upper watershed is generally undeveloped, whereas the lower portion is highly urbanized, with a number of regional and local parks. The mean monthly flow of the Arroyo Seco at its confluence with the Los Angeles River is 85.9 cubic feet per second (cfs), with a mean monthly high flow of 251.8 cfs in February. The mean monthly low is 11.6 cfs in July (Corps 2005). Arroyo Seco is listed as impaired under the Clean Water Act 303(d) due to high coliform counts, algae, and trash.

The US Army Corps of Engineers, Los Angeles District, and the Los Angeles County Department of Public Works are conducting a watershed management study of the Arroyo Seco watershed. The purpose of the study is to identify the problems and opportunities relative to water resources, environmental restoration, flood control, water quality, and water conservation. The study’s objectives are to evaluate the existing conditions within the watershed, to identify problems and opportunities, to determine the needs and goals for watershed enhancement, and to identify candidate sites for further study (Corps 2005).

The river continues its journey through the Downtown Industrial Opportunity Area to Long Beach. Major tributaries downstream of Arroyo Seco and outside the study area, which ends at Washington Boulevard, include the Rio Hondo and Compton Creek. The Los Angeles River is hydraulically connected to the San...
Gabriel River Watershed by the Rio Hondo through the Whittier Narrows Reservoir. The bottom of the river is lined with concrete until Willow Street in Long Beach. Below Willow Street, the bottom of the river is again unlined and is also tidally influenced (California Regional Water Quality Control Board 2004).

The amount of impervious area in the Los Angeles River Watershed is estimated to be 32 percent, based on assumptions of impervious areas in each land use type (LADPW 2005b). Due to the high amount of impervious surfaces in the city, water makes its way to the storm drains, creeks, and eventually to the river in a short time. Rainfall in the headwaters also makes its way to the Los Angeles River rather rapidly because the upper portions of the watershed and stream channels for the most part are relatively steep. Furthermore, most of the stream channels in the developed areas have been channelized and lined with concrete, increasing the speed on which water makes its way downstream and deterring the absorption of water into the ground.

Impermeable surfaces prevent the infiltration or passage of rainwater through it. This typically applies to streets, parking lots, rooftops, and sidewalks. A direct correlation exists between the degree of imperviousness in an area and the degradation of the receiving waters. Studies show that the diversity of aquatic insects and freshwater fish declines with 10 to 15 percent impervious cover. The primary impacts on stream hydrology from increases in impervious surfaces are increased runoff volume, increased peak discharge rates, increased magnitude, frequency and duration of bankfull flows, flashier flows, and diminished baseflows. An increase in impervious surfaces can also result in decreased water quality since contaminants make their way to the streams without being naturally filtered by vegetation (Center for Watershed Protection 2003).

The flow in the Los Angeles River varies greatly over the course of the year. During the dry season, most of the water in the River is from wastewater effluent, while in the wet season, the River contains runoff from large storms. The Tillman, Los Angeles-Glendale, and Burbank publicly owned treatment works (POTW) provide 70 to 100 percent of the monthly average flow during the dry season (USEPA 2004). The median daily average flow for the dry summer months was 10 cfs, with a maximum monthly daily average of 92.2 cfs during July 2005 at the USGS Sepulveda Dam gauge, near the middle of the study area. This was based on the daily average flow records from 1966 to 1979 and 2002 to 2006 (USGS 2006a). Dry weather flow out of the Sepulveda Basin is largely influenced by the outflow from the Tillman Water Reclamation Plant, which began continuous operation in 1985 and doubled in capacity in 1991. Recent monitoring data (primarily within the past two decades) is more representative of dry weather flows due to an increase in treated effluent from urban development in the area of service.

In addition to variability in seasonal flow, the flow in the channel increases greatly as the river flows toward its mouth on the Pacific Ocean. The median and maximum daily average flow from 1991 to 2000 were 83 cfs and 11,900 cfs. A 100-year storm event was at 64,500 cfs for the Los Angeles River below Tujunga Wash at the Los Angeles County Department of Public Works F300-R Station, near the middle lower end of the study area. The median daily and maximum average flow from 1991 to 2000 were 136 cfs and 20,600 cfs. A 100-year storm event was at 93,800 cfs for the Los Angeles River above Arroyo Seco at the Los Angeles County Department of Public Works F57C-R Station, near the lower end of the study area. At the Los Angeles County Department of Public Works F319-R Station on Wardlow Street, south of the study area in Long Beach, the median and maximum daily average flow were 164 cfs and 43,900 cfs from 1991 to 2000. A 100-year storm event was 142,000 cfs.
3.5 Hydrology, Floodplains, and Water Quality

3.5.1.2 Water Quality
The Los Angeles region is the most densely populated and industrialized region of the state and as such, the quality of many of its waters continues to be degraded. Pollutants in stormwater runoff have impaired the water quality in the watershed, especially in the middle and lower portions. Unlike pollution from industry or sewage treatment facilities, stormwater pollution is caused by people’s daily activities. Rainwater runs off streets, lawns, farms, and construction and industrial sites and picks up fertilizer, dirt, pesticides, oil and grease, and many other pollutants on its way to rivers, lakes, and coastal waters. Stormwater runoff is the most common cause of water pollution. Stormwater discharges are also generated by runoff from impervious areas during rainfall, and these discharges often contain pollutants in quantities that can adversely affect water quality (USEPA 2006a).

In addition, there are numerous permitted discharges in the watershed. As of October 2004, these consisted of the following:

- 144 National Pollutant Discharge Elimination System (NPDES) permitted discharges, seven major NPDES discharges, 23 minor individual permits, and 114 dischargers covered by general permits;
- Minor permits include groundwater dewatering, recreational lake overflow, swimming pool wastes, and groundwater seepage,
- Two municipal stormwater permits;
- 1,336 discharges under an industrial stormwater permit; and
- 456 discharges under a construction stormwater permit (California Regional Water Quality Control Board 2004).

The Clean Water Act, NPDES permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches. Industrial, municipal, and other facilities must be permitted if their discharges go directly to surface waters. There are two general types of permits: individual permits are specifically tailored to an individual facility based on the type of activity, nature of discharge, and receiving water quality; General permits cover multiple facilities within a specific category and region (USEPA 2006a).

The California Environmental Protection Agency, Los Angeles Regional Water Quality Control Board, oversees and regulates water quality issues in the Los Angeles region. They conduct a broad range of activities to protect groundwater and surface waters in the region and include the following:

- Addresses region-wide and specific water quality concerns through updates of the Water Quality Control Plan (Basin Plan);
- Prepares, monitors compliance with, and enforces waste discharge requirements, including NPDES permits;
- Implements and enforces local stormwater control efforts;
- Regulates the cleanup of contaminated sites, which have already polluted or have the potential to pollute groundwater or surface water;
- Enforces water quality laws, regulations, and waste discharge requirements;
• Coordinates with other public agencies and groups that are concerned with water quality; and;
• Informs and involves the public on water quality issues (California Regional Water Quality Control Board 2006a).

Section 303(d) of the Clean Water Act requires states to develop lists of impaired waters that do not meet established water quality standards. The law also requires the states to establish priority rankings for waters on the lists and to develop total maximum daily loads (TMDLs) for these waters. A TMDL specifies the maximum amount of a pollutant that a water body can receive and still meet water quality standards and allocates pollutant loadings among point and nonpoint pollutant sources. By law, the USEPA must approve or disapprove lists and TMDLs (USEPA 2006a).

As discussed previously, most of the tributaries of the Los Angeles River do not meet state water quality standards and as such are listed as impaired. Most of these impairments are due to high coliform counts (bacteria), algae, and trash (see Table 3.5-1).

The Los Angeles River itself is also listed as impaired for a number of pollutants: metals, ammonia, coliform, nutrients (algae), scum/foam unnatural, odors, and pesticides. Some of these constituents are of concern throughout the river, while others are of concern in only certain reaches (see Table 3.5-2, below).

For the Los Angeles River watershed, TMDLs have been developed for trash, metals, and nitrogen compounds. In addition to the impact of trash on aesthetics, it inhibits the growth of vegetation and it can be ingested by or entangle wildlife. The TMDL for trash was adopted by the regional board in September 2001. However, due to recent litigation, the California Court of Appeal declared the trash TMDL void and issued a writ of mandate that orders the California water boards to set aside and not implement the TMDL until it has been brought into compliance with CEQA. (California Regional Water Quality Board 2006b).

In June 2005, the regional board adopted the TMDL for metals. Reaches of the Los Angeles River and its tributaries are listed as impaired for copper, cadmium, lead, zinc, aluminum, and selenium. The beneficial uses impaired by metals are those associated with aquatic life and water supply, including wildlife habitat, rare, threatened, and endangered species, warm freshwater habitat, wetlands, and groundwater recharge. Numeric water quality targets are based on the numeric water criteria established by the California Toxics Rule (California Regional Water Quality Board 2005).

The Nitrogen TMDL became effective on March 23, 2004. Reaches of the Los Angeles River and its tributaries are listed as impaired for nitrogen compounds and related effects, such as algae, pH, odor, and scum. These reaches were listed because water quality objectives for nitrogen compounds and related effects were exceeded, thereby impairing freshwater, and wildlife habitats, and recreational uses. The principal source of nitrogen compounds is from POTWs. Discharges from the Donald C. Tillman Water Reclamation Plant (WRP), the Los Angeles-Glendale WRP, and the Burbank WRP are contributors to the Los Angeles River. During dry weather periods, these major POTWs contribute 84 percent of the total dry weather nitrogen load. Urban runoff, stormwater, and groundwater discharge may also contribute to the nitrogen loadings (City of Los Angeles 2006d).
### Table 3.5-1
Clean Water Act Section 303(d) List of Water Quality Limited Segments

<table>
<thead>
<tr>
<th>Tributary</th>
<th>CALWATER Watershed</th>
<th>Pollutant/Stressor</th>
<th>Potential Sources</th>
<th>TMDL Priority</th>
<th>Estimated Size Affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bell Creek</td>
<td>40521000</td>
<td>High coliform count</td>
<td>Nonpoint/point Source</td>
<td>High</td>
<td>8.9 Miles</td>
</tr>
<tr>
<td>Aliso Canyon Wash</td>
<td>40521000</td>
<td>Selenium</td>
<td>Nonpoint source</td>
<td>High</td>
<td>10 Miles</td>
</tr>
<tr>
<td>Tujunga Wash (Los Angeles River to Hansen Dam)</td>
<td>40521000</td>
<td>• Ammonia • Copper • High coliform count • Odors • Scum/Foam-unnatural • Trash</td>
<td>Nonpoint source</td>
<td>High</td>
<td>9.7 miles</td>
</tr>
<tr>
<td>Burbank Western Channel</td>
<td>40521000</td>
<td>• Algae • Ammonia • Cadmium • Odors • Scum/Foam-unnatural • Trash</td>
<td>Nonpoint/point source</td>
<td>High</td>
<td>1.3 Miles</td>
</tr>
<tr>
<td>Verdugo Wash Reaches I and II</td>
<td>40521000 40524000</td>
<td>• Algae • High coliform count • Trash</td>
<td>Nonpoint source</td>
<td>High</td>
<td>9.6 Miles</td>
</tr>
<tr>
<td>Arroyo Seco Reaches I and II</td>
<td>40515010 40515010</td>
<td>• Algae • High coliform count • Trash</td>
<td>Nonpoint source</td>
<td>High</td>
<td>9.6 Miles</td>
</tr>
</tbody>
</table>

Source: Los Angeles Regional Water Quality Control Board 2002
### Table 3.5-2
Clean Water Act Section 303(d) Listing of Los Angeles River Reaches

<table>
<thead>
<tr>
<th>Reach</th>
<th>CALWATER Watershed</th>
<th>Pollutant/Stressor</th>
<th>Potential Sources</th>
<th>TMDL Priority</th>
<th>Estimated Size Affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reach 1—Estuary to Carson Street</td>
<td>40512000</td>
<td>• Aluminum, total&lt;br&gt;• Ammonia&lt;br&gt;• Cadmium, dissolved&lt;br&gt;• Copper, dissolved&lt;br&gt;• High coliform count&lt;br&gt;• Lead&lt;br&gt;• Nutrients (algae)&lt;br&gt;• pH&lt;br&gt;• Scum/Foam-unnatural&lt;br&gt;• Zinc, dissolved</td>
<td>Nonpoint/point source</td>
<td>• Low&lt;br&gt;• High&lt;br&gt;• Low&lt;br&gt;• High&lt;br&gt;• High&lt;br&gt;• High&lt;br&gt;• High&lt;br&gt;• High&lt;br&gt;• High&lt;br&gt;• High</td>
<td>3.4 miles</td>
</tr>
<tr>
<td>Reach 2—Carson Street to Figueroa Street</td>
<td>40515010</td>
<td>• Ammonia&lt;br&gt;• High coliform count&lt;br&gt;• Lead&lt;br&gt;• Nutrients (algae)&lt;br&gt;• Odors&lt;br&gt;• Oil&lt;br&gt;• Scum/foam-unnatural</td>
<td>Nonpoint/point source</td>
<td>• High&lt;br&gt;• High&lt;br&gt;• High&lt;br&gt;• High&lt;br&gt;• High&lt;br&gt;• High&lt;br&gt;• High</td>
<td>19 miles</td>
</tr>
<tr>
<td>Reach 3—Figueroa Street to Riverside Drive</td>
<td>4521000</td>
<td>• Ammonia&lt;br&gt;• Nutrients (algae)&lt;br&gt;• Odors&lt;br&gt;• Oil&lt;br&gt;• Scum/foam-unnatural</td>
<td>Nonpoint/point source</td>
<td>• High&lt;br&gt;• High&lt;br&gt;• High&lt;br&gt;• High</td>
<td>7.9 miles</td>
</tr>
<tr>
<td>Reach 4—Riverside Drive to Sepulveda Dam</td>
<td>40521000</td>
<td>• Ammonia&lt;br&gt;• High coliform count&lt;br&gt;• Lead&lt;br&gt;• Nutrients (algae)&lt;br&gt;• Odors&lt;br&gt;• Scum/foam-unnatural</td>
<td>Nonpoint/point source</td>
<td>• High&lt;br&gt;• High&lt;br&gt;• High&lt;br&gt;• High&lt;br&gt;• High</td>
<td>11 miles</td>
</tr>
<tr>
<td>Reach 5—within the Sepulveda Basin</td>
<td>40521000</td>
<td>• Ammonia&lt;br&gt;• Nutrients (algae)&lt;br&gt;• Odors&lt;br&gt;• Oil&lt;br&gt;• Scum/foam-unnatural</td>
<td>Nonpoint/point source</td>
<td>• High&lt;br&gt;• High&lt;br&gt;• High&lt;br&gt;• High&lt;br&gt;• High</td>
<td>5.4 miles</td>
</tr>
<tr>
<td>Reach 6—Above the Sepulveda Flood Control Basin</td>
<td>40521000</td>
<td>• Dichlorethylene/1,1-DCE&lt;br&gt;• High coliform count&lt;br&gt;• Tetrachloroethylene/PCE&lt;br&gt;• Trichloroethylene/TCE</td>
<td>Nonpoint source</td>
<td>• Low&lt;br&gt;• High&lt;br&gt;• Low&lt;br&gt;• Low</td>
<td>7 miles</td>
</tr>
</tbody>
</table>

Source: Los Angeles Regional Water Quality Control Board 2002
3.5.1.3 Flooding

The Los Angeles River has had a long history of flooding, most of which has been the result of winter storms. In 1825, a large storm caused the river to change course and head west toward Santa Monica Bay; that channel is now Ballona Creek. In 1867, another storm caused the river to move back east into a channel that the San Gabriel River had abandoned. The river has kept approximately to the same course ever since, draining into Long Beach Harbor (Coastal Conservancy 2000).

The flood of 1914 did not result in any human casualties, but it did cause over $10 million in damages and isolated Long Beach for six days. As a result of the flooding, the Legislature formed the Los Angeles County Flood Control District, which began constructing dams in the San Gabriel Mountains in an effort to control the flooding. After several storms in the 1930s, the federal Works Progress Administration and the Corps became involved. The Flood Control Act of 1936 expanded the Corps’ authority, and the Corps begin channelizing the river in 1938 (Sherman 2004). By 1960, channelization was practically complete to form a fifty-one mile engineered waterway (LADPW 2006a). Today, 48 of the river’s 51 miles are lined with concrete and have been straightened.

Both the LADPW and the Corps operate and maintain flood control facilities in the watershed. Within the county, the LADPW has 15 dams. The Corps operates four flood control projects that affect the Los Angeles River: Hansen, Whittier Narrows, Lopez, and Sepulveda Dams. Hansen Dam is near the northern edge of the San Fernando Valley on Tujunga Wash; Lopez Dam is on the Pacoima Wash in the north-central part of the San Fernando Valley. Whittier Narrows Dam, at Whittier Narrows, where the Rio Hondo and San Gabriel River converge, allows flows to be directed into either river. The San Gabriel River continues south to the ocean east of Long Beach, and the Rio Hondo flows south to join the Los Angeles River at South Gate. Flows from Whittier Narrows do not originate, traverse, or end up within the project area.

Based on a review of the 100-year floodplain in the study area (obtained from the City of Los Angeles, Bureau of Engineering), most of the project area is outside the floodplain, except for the river channel itself (Figure 3.5-4). About five acres of the project area is within the 100-year floodplain near the Sepulveda Dam at the Ventura Freeway (US Highway 101) and Haskell Avenue. An additional 200 acres of project area—the railroad yard just north of the San Bernardino Freeway (I-10) on the west side of the river—also is in the floodplain.

The multiuse Los Angeles County Drainage Area (LACDA) Project involves the design and construction of 21 miles of levee improvements, modifications to 24 bridge crossings, and bike trail, equestrian trail, and landscaping improvements. The LACDA Project alleviated severe overflow potential by increasing the flood carrying capacity of the lower Los Angeles River, Rio Hondo, and lower portion of Compton Creek, and provided residents with improved recreational opportunities and aesthetics (LADPW 2007).

3.5.1.4 Groundwater

Los Angeles sits above eight groundwater basins, as identified in the Los Angeles Region Water Quality Control Plan (California Regional Water Quality Control Board 1994). The Los Angeles Coastal Plain includes the West Coast Basin, the Central Basin, the Santa Monica Basin, and the Hollywood Basin. The San Fernando Valley overlies the San Fernando Basin and portions of the Eagle Rock, Verdugo, and Sylmar Basins. The Los Angeles Region Water Quality Control Plan identifies several beneficial uses common to all
of these basins, including municipal and domestic supply, industrial process and industrial service supply, and agricultural supply (City of Los Angeles 1998c).

Groundwater is a major component of the water supply in the Los Angeles metropolitan area and is also used by private industries, as well as a limited number of private agricultural and domestic users. Local groundwater provides about 15 percent of the total water supply and has provided nearly 30 percent of the total supply in drought years. The remaining water for the city comes from the Los Angeles Aqueduct system and supplemental water purchased from the Metropolitan Water District of Southern California (City of Los Angeles 2005).

San Fernando, Sylmar, and Eagle Rock make up the Upper Los Angeles River Area (ULARA) groundwater basin. The City of Los Angeles owns water rights in the ULARA as well as in the Central and West Coast Basins. On average, about 86 percent of the groundwater supply comes from the ULARA groundwater basin. The Los Angeles Department of Water and Power, which owns and operates the wells, does not exercise its pumping rights in the West Coast Basin due to localized water quality issues (LADWP 2005).

Groundwater recharge is the process of increasing an aquifer's water content through percolation of surface water. Individual basins may be replenished by surface spreading of local runoff, imported water and reclaimed water, injection of imported water (for protection against saline intrusion), and subsurface inflow from other basins. The major spreading areas are generally on the higher portions of the valley floor near the mountain front or along major streams or channels (City of Los Angeles 1998c).

Changes in the water table or direction of flow may result from the removal of groundwater for water supply needs or site dewatering, increasing or decreasing groundwater recharge, intercepting and removing groundwater from excavations, or remediating contaminated groundwater. Earthwork cuts or excavations in areas of shallow groundwater may need groundwater dewatering systems. Groundwater recharge can be reduced if an area currently available for spreading of stream runoff is reduced, if permeable streambeds are lined, or if permeable areas located above groundwater basins are replaced by hard impermeable surfaces (such as paving and buildings). Groundwater recharge may be increased if larger permeable areas are created (City of Los Angeles 1998c). The Upper Los Angeles River Area Watermaster manages the groundwater activities and levels for the San Fernando and Sylmar Basins. The Watermaster makes judgments regarding the optimum water levels in the basin. The Central and West Coast Basins are within the jurisdiction of the State Department of Water Resources (LADPW 2006b).

As part of its regulatory compliance, the Los Angeles Department of Water and Power works with the Department of Health Services to test the water quality of its production wells. San Fernando Valley is an area of contaminated groundwater covering approximately four square miles beneath the North Hollywood section of Los Angeles and Burbank. This area is part of the San Fernando Valley Groundwater basin, an aquifer that, prior to the discovery of contamination, had provided drinking water to the cities of Los Angeles, Burbank, and Glendale and to La Crescenta Water District. Contaminants include trichloroethylene, perchloroethylene, and other volatile organic compounds (VOCs) (EPA 2006). These contaminants are from numerous companies improperly disposing of chemicals. In spite of the presence of these contaminants, the Department of Water and Power performs the necessary actions to ensure that the city’s drinking water meets or exceeds water quality regulations. These actions include water quality monitoring of contaminant plumes,
management of production well operations, operation of groundwater treatment facilities, and capital improvements (LADWP 2005).

3.5.2 Affected Environment

3.5.2.1 River Corridor
The River Corridor is described in Section 3.5.1, General Resource Description.

3.5.2.2 Canoga Park Opportunity Area
Excluding some landscaping and the recreational fields at the Canoga Park High School, the site consists primarily of impervious surfaces. The area is highly developed, both with residential and commercial facilities. The Opportunity Area sits above the San Fernando Groundwater Basin. The topography of the site is relatively flat, and, except for the river channel, the site is outside the floodplain.

3.5.2.3 River Glen Opportunity Area
As with the Canoga Park Opportunity Area, the River Glen Opportunity Area is highly developed and consists primarily of impervious surfaces (buildings, parking lots, and roads). It sits above the San Fernando Groundwater Basin. Groundwater flows into the Los Angeles River here in the Glendale Narrows region where the river is unlined. The estimated groundwater flow into the river from 1996 to 2000 is 4.48 cfs (2.9 million gallons per day) (City of Los Angeles 2005). The topography of the site is relatively flat. Except for the river channel, the site is outside the 100-year floodplain. Verdugo Wash drains into the Los Angeles River at the north end of the site.

3.5.2.4 Taylor Yard Opportunity Area
The Taylor Yard Opportunity Area is within the San Fernando Groundwater Basin in the upper Los Angeles River area. Groundwater levels are relatively high during the wet season and low during the dry season. Groundwater flows in a south-southeast direction and ranges from 20 to 35 feet below ground surface. Although the Pollock Well Field, within which the site is located, is a drinking water resource, groundwater for drinking is extracted upgradient of the site. Infiltration from the site does not affect any drinking water aquifers. The topography of the site is relatively flat due to past grading and land use. Areas immediately adjacent to the river are within the 100-year floodplain (CDPR 2005b).

The Pollock and Crystal Springs Well Fields are part of the San Fernando Groundwater Basin. The San Fernando Valley NPL Superfund site (areas 2 and 4) is near the Crystal Springs and Pollock Well Fields. Groundwater is contaminated with various chlorinated VOCs, specifically trichloroethylene (TCE) and perchloroethylene (PCE). Since the contamination was discovered, residents have been provided with alternate drinking water supplies, including imported water or groundwater mixed with imported water (USEPA 2006f). See Section 3.11.2.1 for information regarding hazardous and toxic wastes.

3.5.2.5 Chinatown-Cornfields Opportunity Area
About fifty percent of the site is dedicated to commercial and industrial uses. Between North Broadway and North Spring Street, the site is more of an open field/gravel area. The southeast area of the site is residential. Surface water flows east toward the Los Angeles River. The opportunity site is not within the 100-year floodplain.
Surface contamination is possible due to previous land uses. Groundwater occurs at approximately 30 to 35 feet below ground surface, within the recent alluvium and the Puente Formation bedrock. The site is in the Los Angeles Forebay, an area of generally unconfined groundwater, which is within the northern portion of the Central Groundwater Basin. The direction of groundwater flow is to the south toward the Los Angeles River. Groundwater beneath the site is contaminated due to past land practices and are TPH as diesel, gasoline, and oil, VOCs from gasoline, such as benzene, toluene, xylene, ethylbenzene, and MTBE, and chlorinated VOCs (dichloroethane [DCA], perchloroethylene [PCE], and trichloroethylene [TCE]) (CDPR 2005a). See Section 3.11.2.1 for information regarding hazardous and toxic wastes.

3.5.2.6 Downtown Industrial Opportunity Area
The Downtown Industrial Opportunity Area is highly developed with a high percentage of impervious surfaces. There is some landscaping and vacant lots. Hollenbeck Park is just east of the Golden State Freeway (I-5 and I-10), and within the park is a small lake. The site sits above the Los Angeles Central Groundwater Basin. Excluding the river channel, the site is outside the 100-year floodplain.
3.6 MINERAL RESOURCES
This section presents the existing conditions for mineral resources potentially affected by the proposed action and project components in the LARRMP project area. The region of influence for mineral resources evaluated in this EIR/EIS includes the Los Angeles River, a half-mile on either side of the river, and the five opportunity areas, previously described.

3.6.1 General Resource Description
Natural mineral deposits are nonrenewable resources that cannot be replaced once they are depleted (City of Los Angeles 2001). The primary mineral resources within the Los Angeles Basin considered in this EIR/EIS are sand and gravel deposits and underground oil and gas fields. Aggregate mixes of sand and gravel are used locally to make concrete and for other construction purposes.

Oil fields are scattered throughout the Los Angeles basin (CDC 2001). Also, “seeps” can occur near oil and gas fields fed by the underground reservoirs of oil and gas. These seeps are mixtures of crude oil, asphaltum (tar), natural gas, and water. Future exploration and development is assumed to be limited, given the highly urbanized character of the area of the proposed project.

3.6.2 Affected Environment
Sand and gravel deposits occur along the Los Angeles River floodplain, coastal plain, and other water bodies and courses (City of Los Angeles 2001) throughout the River Corridor and the five opportunity areas. Substantial deposits have been identified by the state geologist along the river floodplain, from the San Fernando Valley through downtown Los Angeles. According to the Conservation Element of the City of Los Angeles General Plan, the Los Angeles River (downstream of the Mt. Sinai Memorial Park area) runs along the western boundary of a Mineral Resource Zone-2 (MRZ-2) area. Lands classified as MRZ-2 are areas of identified mineral resource significance. Many of the areas where these deposits are located have been developed and are inaccessible and unavailable for sand and gravel extraction.

Numerous underground oil fields are within the areas of the River Corridor and opportunity areas (CDC 2001), as shown on Figure 3.6-1. Although there are active oil wells in the River Corridor near I-405 and US 101, the oil fields and oil wells are concentrated around the southern end of the River Corridor.
FIGURE 3.6-1
OIL WELLS AND FIELDS
Los Angeles River Revitalization
Master Plan PEIR/PEIS

LEGEND
- Oil Wells
- Oil Fields
- Los Angeles River Corridor
- Opportunity Areas
- Los Angeles River and Tributaries
- Major Roads (within 2 miles)
- Freeways
3.7 Biological Resources

This section is a discussion of the biological resources known to occur within the Los Angeles River Basin and in proximity to the Los Angeles River Corridor. An overview of existing biological conditions is presented first, to provide a baseline for identifying and evaluating potential biological effects from project components and alternatives being considered in this PEIR/PEIS.

3.7.1 General Resource Description

The Los Angeles River begins where Arroyo Calabasas and Bell Creek merge at Owensmouth Avenue in Canoga Park. The river travels 51 miles to where it empties into the Pacific Ocean in Long Beach Harbor (San Pedro Bay). The Los Angeles River was channelized to control runoff and reduce the impacts of major floods in the region. For about 48 of its 51 miles, the river is in a confined concrete-lined channel. Three reaches of the river are not entirely lined with concrete. They are the Sepulveda Flood Control Basin, the Glendale Narrows, and from Willow Street in Long Beach south to Long Beach Harbor. There are also numerous sills and other flow control structures in the channel to help regulate and direct the flow of water.

3.7.1.1 Overview of Habitats

Unless noted otherwise, the descriptions of the habitats found along the Los Angeles River are based on the categories presented in the California Department of Fish and Game 1993 report “The Biota of the Los Angeles River” (CDFG 1993).

**Algal Growth**

Most of the river's sides and bottom are in a trapezoidal concrete-lined channel. Portions of the channel with a shallow sheet flow of water over concrete often support algal growth during the summer. This is most prevalent in the lower stretches of the river south of Rosecrans Avenue down to Willow Street, which is outside this project’s study area.

**Soft-Bottom Channel with Annually Flooded Riparian Growth**

Within portions of the unlined or soft-bottom reaches of the river are scattered wetlands and riparian vegetation. Vegetative communities in the unlined reaches consist of southern willow scrub vegetation, which is dominated by black willow (*Salix gooddingii*), Fremont cottonwood (*Populus fremontii*), arroyo willow (*Salix laevigata*), and emergent marsh, which is dominated by cattail (*Typha latifolia*) and bulrush (*Scirpus spp.*). Within Sepulveda Basin, exotic species include giant reed (*Arundo donax*) and nonnative species of ash (*Fraxinus spp.*). In the Glendale Narrows reach, considerable wetland and riparian vegetation are present, supported in part by the high groundwater discharge in this area and by the man-made pools from the sills of bridges. Scouring during high floods clears some of the understory vegetation in this reach, but well-rooted willows have persisted (City of Los Angeles 2005).

**Freshwater Marsh/Cienega**

Before the river was channelized, cattails and bulrush marshes were widespread in the lowlands. Due to intense development along the river and its tributaries, most of this type of plant community has been eliminated.
3.7 Biological Resources

**Open Freshwater Reservoirs**
No natural lakes exist in the Los Angeles basin, but there are a number of man-made reservoirs, which aid in flood damage reduction and water supply. The reservoirs also provide recreational and wildlife habitat benefits. Reservoirs in the drainage include Silver Lake, Encino, Los Angeles, Pacoima, and Tujunga.

**Floodplain Forest**
Lowland forests of willows (*Salix* spp.) and cottonwoods, with a dense understory were once biologically rich habitats of the Los Angeles River. Most have been lost due to encroachment on the floodplain.

**Valley Oak Savanna**
Open woodlands of *Quercus lobata* mixed with grasses were once found in the western and northern portions of the drainage area. Scattered valley oaks still exist in the San Fernando Valley, but have been heavily impacted by urbanization.

**Walnut Woodland**
Open woodlands dominated by *Juglans californica* were historically found on the slopes of the Los Angeles River in the Glendale Narrows and along the southern side of the San Fernando Valley. Urbanization has all but eliminated this plant community. Walnut woodlands can still be found in Griffith Park.

**Urban/Suburban**
This is now the dominant habitat along the Los Angeles River. It includes most of the lowland portion of the drainage. Urban/suburban habitats are characterized by landscaped yards with exotic flora and ornamentals.

In addition to urbanization, invasive plants have had their impact on native plant communities. Nonnative plants and animals generally outcompete natives due to their lack of natural predators and disease. Invasive species typically degrade the ecological vitality and productivity of native habitats. Of biggest concern is the giant reed (*Arundo donax*), due to its prevalence and flammability. Other species of concern include the tree of heaven (*Ailanthus altissima*), Mexican fan palm (*Washingtonia robusta*), castor bean (*Ricinus communis*), and eucalyptus (*Eucalyptus* spp.) (California Coastal Conservancy 2002).

### 3.7.1.2 Fish and Wildlife Resources

**Mammals**
The Los Angeles basin once supported diverse and productive wildlife populations. However, as the human population increased, wildlife populations decreased and the species diversity and richness diminished. This is related mainly to the loss of native habitats and the intense urbanization of the area. Feral cats and dogs have also had their impact on native bird and rodent populations. Historically, bears inhabited the basin, but the last known grizzly bear (*Ursus arctos horribilis*) in the region was killed in 1916. A few mountain lions (*Felis concolor californica*) still exist in the area and occasionally come down out of the surrounding mountains, although sightings are rare. Most of the wildlife in the study area is limited to species that have adapted to urban habitats. Common mammals include Virginia opossum (*Didelphis virginiana*), black rat (*Rattus rattus*), raccoon (*Procyon lotor*), California ground squirrel (*Spermophilus beecheyi*), fox squirrel (*Sciurus niger*), striped skunk (*Mephitis mephitis*), coyotes (*Canis latrans*), and several species of bats (CDFG 1993).
Birds

As with mammal populations, the diversity and richness of the bird populations of the area has changed over time as the human population of Los Angeles has increased. With the exception of the portion of the River Corridor within the Sepulveda Basin, the diversity and species richness along the river within the City is generally low, with birds making use of existing small and intermittent pockets of vegetation along the waterway. Bird species commonly seen in the city include rock pigeon (Columba livia), mourning dove (Zenaida macroura), American crow (Corvus brachyrhynchos), European starling (Sturnus vulgaris), and house finch (Carpodacus mexicanus). The lower portion of the river in Long Beach (outside the study area) supports a fairly rich diversity of migrant shorebirds such as western sandpipers (Calidris mauri) and black-necked stilts (Himantopus mexicanus), along with other coastal birds such as gulls (Larus spp.) and terns (Sterna spp.) (City of Los Angeles 2005). Other birds fairly common in the River Corridor include American robin (Turdus migratorius), red-winged black bird (Agelaius phoeniceus), house sparrow (Passer domesticus), killdeer (Charadrius vociferous), mallard (Anas platyrhynchos), Northern mockingbird (Mimus polyglottos), common yellowthroat (Geothlypis trichas), swallows (e.g., Hirundo spp. and Petrochelidon spp.), and yellow warbler (Dendroica petechia) (Bureau of Reclamation 2004).

Amphibians and Reptiles

Herpetofauna in the Los Angeles Basin consists of 17 species of amphibians and 38 species of reptiles, which include salamanders, frogs, lizards, and snakes. Some are more dependent on water, such as salamanders; others, like some of the lizards and snakes, can survive in a drier more arid environment away from open water. Four salamanders are considered to occur or probably occur within one mile of the channel: Pacific slender salamander (Batrachoseps pacificus), arboreal salamander (Aneides lugubris), ensatina (Ensatina eschscholtzii), and black-bellied slender salamander (Batrachoseps nigriventris). Three frogs occur within one mile of the channel: western toad (Bufo boreas), Pacific tree frog (Hyla regilla), and bullfrog (Rana catesbeiana). Six Lizards are considered to occur or probably occur within one mile of the channel: California legless lizard (Anniella pulchra), western whiptail (Cnemidophorus tigris), western skink (Eumeces skiltonianus), southern alligator lizard (Gerrhonotus multicarinatus), western fence lizard (Sceloporus occidentalis), and side-blotched lizard (Uta stansburiana). Six snakes are considered to occur or probably occur within one mile of the channel: western rattlesnake (Crotalus viridis), ringneck snake (Diadophis punctatus), common kingsnake (Lampropeltis getulus), California whipsnake (Masticophis lateralis), gopher snake (Pituophis melanoleucus), and two-striped garter snake (Thamnophis hammondii) (CDFG 1993).

Fish

Seven species of fish historically occurred in the freshwaters of the Los Angeles River: the Pacific lamprey (Lampetra tridentate), southern steelhead trout (Oncorhynchus mykiss), Pacific brook lamprey (Lampetra pacifica), arroyo chub (Gila orcutti), unarmored threespine stickleback (Gasterosteus aculeatus williamsoni), the Santa Ana sucker (Catostomus santaanae), and the Santa Ana speckled dace (Rhinichthys osculus) (CDFG 1993).

As part of its work for the Integrated Resources Plan, Final Environmental Impact Report, the City of Los Angeles conducted a fish survey on September 20, 2004 (LADWP 2004). Six species of fish were collected during a one-day field survey at Balboa Boulevard, Los Feliz Boulevard, and near Highway 2. They were all nonnative species, including mosquitofish (Gambusia affinis), green sunfish (Lepomis cyanellus), bluegill (L. macrochirus), black bullhead (Ameirus melas), fathead minnow (Pimephales promelas), and tilapia (Tilapia cf. mossambica). Mosquitofish and green sunfish were the most prevalent species captured. Other species caught were crayfish, bullfrog tadpoles, and numerous dragonfly and damselfly larvae. No native fishes were
collected. The timing of the survey was ideal to determine the presence or absence of such species as Santa Ana sucker, arroyo chub, and speckled dace. None were collected. It is unlikely that species such as steelhead, lamprey, or stickleback exist. The report also found that it is unlikely that any endangered species or species of special concern inhabit the areas sampled (LADWP 2004).

3.7.1.3 Species of Special Concern

In general, the 32 mile stretch of the River in Los Angeles impacts very few federal- or state-listed endangered or threatened species. The U.S. Fish and Wildlife Service records indicate that Sepulveda Basin is a suitable habitat for the endangered least Bell’s vireo (\textit{Vireo bellii pusillus}). All future specific projects within the river channel at the Sepulveda Basin would assess impacts on this species. It will also be determined on a project basis if similar assessments would be required at other locations within the River Corridor.

However, within the greater Los Angeles Basin, including portions of the Angeles National Forest, the Santa Monica Mountains, and coastal areas, a number of rare, threatened, endangered, and sensitive plants and animals may occur. These include plants or wildlife listed under the federal Endangered Species Act (ESA) as threatened or endangered, plants or wildlife similarly listed under the California Endangered Species Act (CESA), and wildlife listed as species of special concern by the California Department of Fish and Game. Special species also include plant species designated by the California Native Plant Society (CNPS) as presumed extinct in California (List 1A); plants designated as rare, threatened, or endangered in California and elsewhere (List 1B); and plants designated as being rare, threatened, or endangered in California but more common elsewhere (List 2). The special plant species with the potential to occur in the greater Los Angeles Basin, along with specific information on status, are presented in Table 3.7-1; the special wildlife species with the potential to occur in the greater Los Angeles Basin, along with specific information on status, are presented in Table 3.7-2.

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>State</th>
<th>CNPS</th>
<th>Federal</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textit{Aster greatae}</td>
<td>Greata’s aster</td>
<td>1B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>\textit{Astragalus brauntonii}</td>
<td>Braunton’s milk-vetch</td>
<td>1B</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>\textit{A. tener} var. \textit{titi}</td>
<td>Coastal dunes milk-vetch</td>
<td>E</td>
<td>1B</td>
<td>E</td>
</tr>
<tr>
<td>\textit{Atriplex parishii}</td>
<td>Parish’s brittlescale</td>
<td>1B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>\textit{A. serenana} var. \textit{davidontii}</td>
<td>Davidson’s saltscale</td>
<td>1B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>\textit{Berberis nevinii}</td>
<td>Nevin’s barberry</td>
<td>E</td>
<td>1B</td>
<td>E*</td>
</tr>
<tr>
<td>\textit{Brodiaea filifolia}</td>
<td>Thread-leaved brodiaea</td>
<td>E</td>
<td>1B</td>
<td>T*</td>
</tr>
<tr>
<td>\textit{Calochortus plummerae}</td>
<td>Plummer’s mariposa lily</td>
<td>1B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>\textit{Calystegia sepium} ssp. \textit{binghamiae}</td>
<td>Santa Barbara morning-glory</td>
<td>1A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>\textit{Centromadia parryi} ssp. \textit{australis}</td>
<td>Southern tarplant</td>
<td>1B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>\textit{Chorizanthe parryi} var. \textit{fernandina}</td>
<td>San Fernando Valley spineflower</td>
<td>E</td>
<td>1B</td>
<td>C*</td>
</tr>
<tr>
<td>\textit{Cordylanthus maritimus} ssp. \textit{maritimus}</td>
<td>Salt marsh bird’s beak</td>
<td>E</td>
<td>1B</td>
<td>E*</td>
</tr>
<tr>
<td>\textit{Deinandra minthornii}</td>
<td>Santa Susana tarplant</td>
<td>R</td>
<td>1B</td>
<td></td>
</tr>
<tr>
<td>\textit{Dodecahema leptoceras}</td>
<td>Slender-horned spineflower</td>
<td>E</td>
<td>1B</td>
<td>E*</td>
</tr>
<tr>
<td>\textit{Dudleya blochmaniae} ssp. \textit{blochmaniae}</td>
<td>Blochman’s dudleya</td>
<td>1B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>\textit{D. multicaulis}</td>
<td>Many-stemmed dudleya</td>
<td>1B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>\textit{D. cymosa} ssp. \textit{oratipila}</td>
<td>Santa Monica mountains dudleya</td>
<td>1B</td>
<td>T*</td>
<td></td>
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</table>
### Table 3.7-1
Special-Status Plant Species

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>State</th>
<th>CNPS</th>
<th>Federal</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Helianthus nuttallii</em> ssp. <em>parishii</em></td>
<td>Los Angeles sunflower</td>
<td>1A</td>
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</tr>
<tr>
<td><em>Horkelia conocea</em> ssp. <em>puberula</em></td>
<td>Mesa horkelia</td>
<td>1B</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Linanthus orcuttii</em></td>
<td>Orcutt’s linanthus</td>
<td>1B</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Malacothamnus davidsonii</em></td>
<td>Davidson’s bush mallow</td>
<td>1B</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Navarretia fossalis</em></td>
<td>Spreading navarretia</td>
<td>1B</td>
<td>T*</td>
<td></td>
</tr>
<tr>
<td><em>N. prostrate</em></td>
<td>Prostrate navarretia</td>
<td>1B</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Orcuttia californica</em></td>
<td>California orcutt grass</td>
<td>E</td>
<td>1B</td>
<td>E*</td>
</tr>
<tr>
<td><em>Pentachaeta lyonii</em></td>
<td>Lyon’s pentachaeta</td>
<td>E</td>
<td>1B</td>
<td>E*</td>
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<tr>
<td><em>Phacelia stellaris</em></td>
<td>Brand’s phacelia</td>
<td>1B</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td><em>Ribes divaricatum</em> var. <em>parishii</em></td>
<td>Parish’s gooseberry</td>
<td>1B</td>
<td></td>
<td></td>
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<tr>
<td><em>Karippa gambeli</em></td>
<td>Gambel’s water cress</td>
<td>E</td>
<td>1B</td>
<td>E*</td>
</tr>
<tr>
<td><em>Symphyotrichum defoliatum</em></td>
<td>San Bernardino aster</td>
<td>1B</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R: rare
T: threatened
E: endangered
C: candidate
*: species listed in coordination letter with USFWS dated June 09, 2006
1A: designated by the CNPS as presumed extinct in California
1B: designated by the CNPS as rare, threatened, or endangered in California and elsewhere

### Table 3.7-2
Special-Status Animal Species

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>State</th>
<th>Federal</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Streptocephalus woottoni</em></td>
<td>Riverside fairy shrimp</td>
<td></td>
<td>E*, CH</td>
</tr>
<tr>
<td><em>Bufo californicus</em></td>
<td>Arroyo toad</td>
<td>CSC</td>
<td>E*</td>
</tr>
<tr>
<td><em>Clemmys marmorata pallida</em></td>
<td>Southwestern pond turtle</td>
<td>CSC</td>
<td></td>
</tr>
<tr>
<td><em>Phrynosoma coronatum blainvillii</em></td>
<td>Coast (San Diego) horned lizard</td>
<td>CSC</td>
<td></td>
</tr>
<tr>
<td><em>Agelaius tricolor</em></td>
<td>Tricolored blackbird</td>
<td>CSC</td>
<td></td>
</tr>
<tr>
<td><em>Athene cunicularia</em></td>
<td>Burrowing owl</td>
<td>CSC</td>
<td></td>
</tr>
<tr>
<td><em>Coccyzus americanus</em></td>
<td>Yellow-billed cuckoo</td>
<td>E</td>
<td>C*</td>
</tr>
<tr>
<td><em>Empidonax traillii extimus</em></td>
<td>Southwestern willow flycatcher</td>
<td>E</td>
<td>E*, CH</td>
</tr>
<tr>
<td><em>Haliaeetus leucocephalus</em></td>
<td>Bald eagle</td>
<td>E</td>
<td>T*</td>
</tr>
<tr>
<td><em>Pelecanus occidentalis</em></td>
<td>Brown pelican</td>
<td>E</td>
<td>E*</td>
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<tr>
<td><em>Polioptila californica californica</em></td>
<td>Coastal California gnatcatcher</td>
<td>CSC</td>
<td>T*, CH</td>
</tr>
<tr>
<td><em>Rallus longirostris</em></td>
<td>Light-footed clapper rail</td>
<td>E</td>
<td>E*</td>
</tr>
<tr>
<td><em>Sturnula antillarum brouni</em></td>
<td>California least tern</td>
<td>E</td>
<td>E*</td>
</tr>
<tr>
<td><em>Vireo bellii pusillus</em></td>
<td>Least Bell’s vireo</td>
<td>E</td>
<td>E*, CH</td>
</tr>
<tr>
<td><em>Microtus californicus stephensi</em></td>
<td>Stephen’s California vole</td>
<td>CSC</td>
<td></td>
</tr>
<tr>
<td><em>Nycisticomus macrotis</em></td>
<td>Big free-tailed bat</td>
<td>CSC</td>
<td></td>
</tr>
<tr>
<td><em>Onychorynchus torridus</em> Ramona</td>
<td>Southern grasshopper mouse</td>
<td>CSC</td>
<td></td>
</tr>
<tr>
<td><em>Perognathus longimembris pacificus</em></td>
<td>Pacific pocket mouse</td>
<td>CSC</td>
<td>E*</td>
</tr>
<tr>
<td><em>Taxidea taxus</em></td>
<td>American badger</td>
<td>CSC</td>
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</table>

E: endangered
CH: designated critical habitat
3.7 Biological Resources

Table 3.7-2
Special-Status Animal Species

<table>
<thead>
<tr>
<th>Species listed in coordination letter with USFWS dated June 9, 2006</th>
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3.7.1.4 Wetlands
Wetlands are defined as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Under most circumstances, wetlands are considered Waters of the United States and thus subject to regulation pursuant to Section 404 of the Clean Water Act. The Los Angeles River itself is considered a Water of the United States, and thus the discharge of dredged or fill materials below ordinary high water is also regulated pursuant to Section 404 of the Clean Water Act.

A significant natural resource, wetlands serve important functions relating to fish and wildlife, food chain production, habitat, nesting, rearing and resting sites for aquatic and land species, protection of other areas from erosion, storage areas for storm and flood waters, natural recharge areas where ground and surface water are interconnected, and natural water filtration and purification functions.

Before the Los Angeles River was channelized, it meandered through the alluvial plain. It flooded periodically, and the area was interspersed with marshes, ponds, and lakes. As the population of Los Angeles grew, wetlands were filled in and the need for water increased. Aside from a few preserved or restored depressional marshes, all inland freshwater (riverine and slope) marsh habitats have been eliminated from the watershed (California Coastal Conservancy 2000).

The USFWS’s National Wetland Inventory (NWI) maps were reviewed for the presence of wetlands in the study area. NWI maps are not definitive with regard to the presence or absence of wetlands; they are to be used as an initial planning tool. The maps are prepared from the analysis of high altitude imagery with some ground truthing. Wetlands on the NWI maps are identified based on vegetation, visible hydrology, and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis. On-site delineations would need to be performed to confirm the presence of wetlands and other Waters of the United States, to assess their functions and values, and to determine if they are subject to regulation under Section 404 of the Clean Water Act.

In addition to the NWI maps, information was obtained from the Coastal Conservancy’s *Wetlands of the Los Angeles River Watershed, profiles and Restoration Opportunities*. This document is an overview of the river’s history, along with historic and current wetlands and potential restoration sites.

3.7.1.5 Significant Ecological Areas
The County of Los Angeles, through its General Plan, established Significant Ecological Areas (SEAs), which represent a wide variety of biological communities within the county. Based on a review of the County of Los Angeles, Department of Regional Planning’s interactive GIS maps, the only SEAs in the River Corridor within the master plan study area are the Santa Monica Mountains and Griffith Park SEAs.
Griffith Park, located at the east end of the Santa Monica Mountains, supports coastal scrub, chaparral, riparian, and oak woodland habitats. The area also includes the Hollywood Reservoir. Griffith Park is considered an important “island” rest-stop for migrating birds, as well as a “reservoir for native species” and “corridor” for wildlife movement between the Santa Monica Mountains and San Gabriel Mountains, via the Verdugo Mountains. The Department of Recreation and Parks manages a portion of Griffith Park as a bird sanctuary (City of Los Angeles 1998c).

Important to SEAs is linkages or corridors for wildlife to travel between habitats. Connecting isolated habitats helps to reduce population isolation, increases the species’ range, and allows for greater movement of the population. The connectivity of fragmented habitats is one of the objectives of the LARRMP. Greening of the River Corridor and providing more parkland and open space will help provide wildlife the opportunity to travel to and from SEAs. Green Visions, a partnership between southern California’s land conservation agencies and the University of Southern California, has been studying habitat linkages in the Los Angeles Basin. Figure 3.7-1 from Green Visions’ soon to be released studies, shows habitat linkages between the River Corridor and the SEAs for five keystone species, the coyote, shrike (*Lanius ludovicianus*), acorn woodpecker (*Melanerpes formicivorus*), California quail (*Callipepla californica*), and Lorquin’s admiral butterfly (*Basilarchia lorquini*). Figure 3.7-2 also based on Green Vision data, shows sites where habitat connectivity could be improved.

### 3.7.2 Affected Environment

#### 3.7.2.1 River Corridor

The U.S. Department of the Interior, Bureau of Reclamation, conducted a physical and biological habitat assessment in 2003 for the City of Los Angeles’ Integrated Resources Plan (Bureau of Reclamation 2004). The study area begins near Balboa Boulevard in the Sepulveda Basin and follows the river downstream to the Willow Street Bridge. The Bureau of Reclamation also looked at four study sites, three of which are in the LARRMP study area: in the Sepulveda Basin near Balboa Boulevard; just upstream of the Los Feliz Boulevard bridge (immediately south of the River Glen Opportunity Area); and at Taylor Yard, about half a mile below the Route 2 bridge. Below is a summary of their findings. The Bureau of Reclamation also looked at shorebird habitat in the lower portion of the river, but this is outside the LARRMP study area and, as such, is not discussed here.

Riparian habitat exists primarily in two areas, the Sepulveda Basin and the Glendale Narrows. Riparian habitat is pretty much nonexistent from the Sepulveda Dam down to the upstream crossing of I-5. There are gravel/sediment bars, totaling about four acres in size, just upstream of the I-5 crossing, along the north side of the river (Figure 3.7-3). Riparian habitat is absent around the bend at Griffith Park until Verdugo Wash joins the river at Route 134 (the beginning of the River Glen Opportunity Area). Concrete lining ends just below Route 134, and a rock field occurs along with a series of small gravel bars with riparian vegetation. Upstream of Colorado Boulevard, a middle channel gravel bar exists. Between Colorado Boulevard and Los Feliz Boulevard, are a number of large one- to four-acre gravel bars. Scattered gravel bars also exist between Los Feliz Boulevard and Fletcher Drive. The most extensive riparian habitat is between Fletcher Drive and Figueroa Street in the Taylor Yard Opportunity Area. Numerous control structures aid in the formation of the gravel bars. Approximately 32 acres of gravel bar/riparian habitat exists in this portion of the river.
Figure 3.7-1
Habitat/Connectivity Studies
Figure 3.7-2
Habitat Connectivity Goals

Legend:
- Existing Conditions
- Significant Ecological Area
- Habitat Areas (USC)
- Habitat Patch or Fragment

Proposed Habitat Improvements
- Connect Regional Habitat and "Significant Ecological Areas" with Wildlife Corridors on the Los Angeles River and Tributaries
- Increase Connectivity to Habitat Fragments and Patches
- Enhance and Expand Riparian & Aquatic Habitat

HABITAT CONNECTIVITY GOALS
Los Angeles River Revitalization Master Plan / Plan de Revitalizacion del Rio de Los Angeles
VT 3.04
At the Balboa Boulevard study site, the overstory is dominated by willows and ash (nonnative) and includes fan palms (nonnatives), sycamores, and eucalyptus trees (nonnative). At the Los Feliz and Taylor Yard study sites, the overstory is dominated by willows and ash. Giant reed (nonnative) is a predominant herbaceous species found at the Los Feliz and Taylor Yard study sites. Giant reed was not found at the Balboa study site but is present in the Sepulveda Basin.

Bird surveys were also taken at these three study sites. There were variations in the abundance of birds at the study sites, especially between Los Feliz and Taylor Yard. This was primarily due to neighboring habitats, not to differences in the quality of the riparian habitat within the study plots. Species identified included yellow warbler, black phoebe (Sayornis nigricans), common yellowthroat, song sparrow (Melospiza melodia), red-wing blackbird, Bewick's wren (Thryomanes bewickii), blue grosbeak (Passerina caerulescens), northern rough-winged swallow (Stelgidopteryx serripennis), barn swallow (Hirundo rustica), and cliff swallow (Petrochelidon pyrrhonota). No state or federal special-status species were observed during the surveys. Swallows were common at the Los Feliz and Taylor Yard study sites, probably due to the number of bridges in the area, which are used for nesting.

The numerous log jams and bent over vegetation indicate high water events. The concrete-lined channel confines the water and directs its energy against the riparian communities. Thus the flows, especially during storms, affect the formation and establishment of riparian habitats.

Another major factor affecting the quality of the habitat is the presence of an exorbitant amount of trash (see Section 3.5.1.2, Water Quality). The trash consisted of plastic bags, shopping carts, paper, and clothing. Trash is detrimental to habitat by smothering vegetation and inhibiting its growth, not to mention the aesthetic impact.
At the Balboa Boulevard study site, the river bed is about 175 feet wide, but the wetted channel is less than 60 feet wide. Vegetated gravel bars are found on both banks, as opposed to the Los Feliz and Taylor Yard study sites that typically have gravel bars on only one bank or the other. The overstory is predominantly willows and ash but includes palms, sycamores, and eucalyptus (primarily nonnative species).

At the Los Feliz study site, the channel is about 200 feet wide, about half of which is wetted; the remaining part of the channel is either dry concrete apron or vegetated gravel bars. The substrate on the streambed was fairly monotonous and consisted of boulder/rubble or concrete. Fines were not present except on the gravel bars. In low velocity zones, filamentous algae covered much of the boulders. Overstory vegetation was dominated by willows and some ash.

At the Taylor Yard study site, the channel is about 230 feet wide. A large vegetated gravel bar is on the west bank and is about 110 feet wide. The substrate was similar to the Los Feliz study site, with either boulder/rubble or concrete. Fines were absent, and filamentous algae was common. Submerged and emergent vegetation was sparse but present. Dominate overstory species were willows and ash.

In areas such as in the Sepulveda Basin, the Corps has used both herbicides and mechanical means to remove vegetation, including the invasive giant reed. For example in 2001, the Corps removed about 10 acres of vegetation from the Los Angeles River Channel between the Bull Creek confluence and Burbank Boulevard Bridge (California Coastal Conservancy 2002). Vegetation is removed from the channel to maintain the channel’s capacity to convey or transport flood waters. Vegetation and debris slow water velocities during high water. Vegetation can also be uprooted and create jams at bridges, impeding water flows.

Based on a review of the available digital NWI maps, Wetlands of the Los Angeles River (California Coastal Conservancy 2000) and wetland mapping provided by the City of Los Angeles, most of the wetlands and ponds/lakes along or near the river are at the Sepulveda Basin near Balboa Boulevard, to include the lakes in the Woodley Lakes Golf Course (Aquatic Habitat Classification PSS/EMKC, PUBKH, PSSKC, and PEMKC) (see Table 3.7-3 and Figure 3.7-4). Additional open water, riverine, and wetland habitats are near Reseda Boulevard (PUBKH), Barham Boulevard (PUBKH), Mt. Sinai Memorial Park (L2USKC), and the Glendale Narrows (R2UBHx).

### Table 3.7-3

**Wetland/Aquatic Habitat Classification**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUBKH</td>
<td>Palustrine unconsolidated bottom artificially permanently flooded</td>
</tr>
<tr>
<td>PSS/EMKC</td>
<td>Palustrine scrub-shrub/emergent artificially seasonally flooded</td>
</tr>
<tr>
<td>PSSKC</td>
<td>Palustrine scrub-shrub artificially seasonally flooded</td>
</tr>
<tr>
<td>PEMKC</td>
<td>Palustrine emergent artificially seasonally flooded</td>
</tr>
<tr>
<td>L2USKC</td>
<td>Lacustrine littoral unconsolidated shore artificially seasonally flooded</td>
</tr>
<tr>
<td>R2UBHx</td>
<td>Riverine lower perennial unconsolidated bottom permanently flooded excavated</td>
</tr>
</tbody>
</table>

Classifications and categories of open water habitats are those described by Cowardin, et al. (1979).

The portion of the river below the Willow Street Bridge, which is outside the project area, is important habitat for migratory shorebirds. There are scattered estuarine wetlands in the area and the river channel has a soft bottom. The Queens Bay region at the mouth of the river once supported vast marshlands. Now, most
FIGURE 3.7-4
WETLANDS & OTHER WATERS
Los Angeles River Revitalization
Master Plan PEIR/PEIS

LEGEND
- Wetlands
- Ponds/Lakes
- Los Angeles River Corridor
- Los Angeles River and Tributaries
- Major Highways
- Freeways

PUBKH Palustrine unconsolidated bottom artificially permanently flooded
PSS/EMKC Palustrine scrub-shrub/emergent artificially seasonally flooded
PSSKC Palustrine scrub-shrub artificially seasonally flooded
PEMKC Palustrine emergent artificially seasonally flooded
L2USKC Lacustrine littoral unconsolidated shore artificially seasonally flooded
R2UBHx Riverine lower perennial unconsolidated bottom permanently flooded excavated

Los Angeles County
City of Los Angeles

WETLANDS & WATERS
Los Angeles River Revitalization
Master Plan PEIR/PEIS

PUBKH Palustrine unconsolidated bottom artificially permanently flooded
PSS/EMKC Palustrine scrub-shrub/emergent artificially seasonally flooded
PSSKC Palustrine scrub-shrub artificially seasonally flooded
PEMKC Palustrine emergent artificially seasonally flooded
L2USKC Lacustrine littoral unconsolidated shore artificially seasonally flooded
R2UBHx Riverine lower perennial unconsolidated bottom permanently flooded excavated
of the area has been dredged and filled to support the Los Angeles-Long Beach Harbor. Only a small isolated salt marsh remains at Cabrillo Beach (California Coastal Conservancy 2000).

As discussed in Section 3.7.1.4, NWI maps are not definitive with regard to the presence or absence of wetlands and are to be used as an initial planning tool. On-site delineations and verifications would need to be performed to confirm the presence of wetlands and other Waters of the United States and to determine if they are subject to regulation under Section 404 of the Clean Water Act.

### 3.7.2.2 Canoga Park Opportunity Area

The Canoga Park Opportunity Area is where Arroyo Calabasas and Bell Creek merge. The two creeks and the Los Angeles River are in concrete-lined channels with very little to no vegetation below the top of the river bank. Filamentous algae dominates the wetted portion of the river channel. The area is highly developed. Canoga Park High School is at the junction where the two creeks merge to form the river. The high school has ball fields, parking lots, and landscaped lawn with trees. There is also a small grove of redwood trees on the campus. The surrounding area is residential, with light to moderate commercial development, such as office buildings and retail stores. There is a concrete plant and gravel material yard just north of the river. Vegetation consists primarily of landscaped lawns and tree-lined streets. Wildlife in the area is typical of highly developed urban areas and includes animals such as squirrels, sparrows, and starlings.

#### Figure 3.7-5

Verdugo Wash at the Confluence with the Los Angeles River
3.7 Biological Resources

3.7.2.3 River Glen Opportunity Area
The River Glen Opportunity Area begins where Verdugo Wash flows into the Los Angeles River. There are wetlands and riparian habitat in the river channel at the confluence (see Figure 3.7-5). South of the Ventura Freeway, the Opportunity Area is highly developed and industrialized, dominated by warehouses. Most of the area is paved or has buildings on it. There are pockets of green grass and ornamental trees among the buildings and parking lots. Wildlife that would be found in the uplands includes squirrels, sparrows, and starlings. In the river channel, birds such as mallards can be found. Griffith Park is on the west side of the river opposite the Opportunity Area. The park has over 4,107 acres of natural terrain covered with California oak trees, wild sage, and manzanita. Griffith Park is the largest municipal park and urban wilderness area in the United States (City of Los Angeles, Department of Recreation and Parks 2007).

Riparian vegetation is growing in the river channel, most of which is nonnative. Most of the river channel through the Glendale Narrows in this area is about 175 feet wide and has a soft bottom. Except during high water events, about two-thirds of the channel has flowing water. The remaining third is vegetated land in the form of permanent or semipermanent gravel bars (California Coastal Conservancy 2002). Most of the gravel bars are south of Brazil Street in the southern half of the Opportunity Area.

The substrate on the streambed was fairly monotonous and consisted of boulder/rubble or concrete. Fines were not present except on the gravel bars. In low velocity zones, filamentous algae covered much of the boulders. Overstory vegetation was dominated by willows, with some ash (Bureau of Reclamation 2004).

3.7.2.4 Taylor Yard Opportunity Area
Below Fletcher Drive, as the river enters the Taylor Yard Opportunity Area, the channel widens to about 225 feet wide. Thirty to fifty percent of the channel width has flowing water during low flow periods.

The California Department of Parks and Recreation conducted surveys of the state-owned parcels of the Taylor Yard Opportunity Area in 2004 and 2005 for the Rio de Los Angeles State Park General Plan and Draft Environmental Impact Report (CDPR 2005b). Based on their assessment of the site, much of the vegetation is indicative of highly disturbed areas. The site did have patches of mulefat scrub, disturbed riparian woodland, freshwater marsh, and disturbed coastal sage. Mulefat (Baccharis salicifolia) is a facultative wetland plant that is adapted to disturbed sites in mesic (moderately moist) habitats. Exotic species identified were tree tobacco (Nicotiana glauca), pampas grass (Cortaderia selloana), fountain grass (Pennisetum setaceum), and fennel (Foeniculum vulgare). More natural riparian habitat was along the river.

In the middle of the site (western side of Parcel D) is a marsh that supports cattails, rushes (Juncus spp.), arroyo willow (Salix lasiolepis), red willow (S. laevigata), black willow (S. gooddingii), and knotweed (Polygonum sp.). The site was about a third of an acre and supported a diversity of wildlife, including birds, frogs, and aquatic insects.

During the survey periods, numerous birds were seen foraging and nesting. Several species of wading and shorebirds were seen in the water, including a flock of black-necked stilts, coots, a sora, pintail ducks, cinnamon teals, and mallards. Observed herpetofauna were side-blotched lizard and Pacific tree frogs. Based on tracks and/or droppings, the site supports Botta’s pocket gopher (Thomomys bottae), striped skunk, ground squirrel, coyote, black rat, and house mouse (Mus musculus). No special-status species were observed.
The California Coastal Conservancy (2000) identifies the Taylor Yard Opportunity Area as a location for potential wetland habitat restoration and as an area to aid in the retention of flood waters.

Construction of Los Angeles State Park is ongoing in the fall of 2006. Vegetation is now primarily grass for ball fields, along with trees and shrubs for landscaping.

3.7.2.5 Chinatown-Cornfields Opportunity Area
Based on the assessment in the Los Angeles State Historic Park Preliminary General Plan and Draft Environmental Impact Report (California Department of Parks and Recreation 2005a), the site can be classified as disturbed. Plants at the site include mulefat, horseweed (Conyza canadensis), prickly lettuce (Lactuca serriola), bristly ox-tongue, (Picris echioides), virgate wreath plant (Steganomeria virgata), black mustard (Brassica nigra), Russian thistle/tumbleweed (Salsola tragus), deerweed (Lotus scoparius), California sycamore (Platanus racemosa), wild oats (Avena spp.), ripgut grass (Bromus diandrus), soft chess (B. bordacens), foxtail chess (B. madritensis), and tree tobacco. Birds observed include killdeer, mourning dove, rock dove, red-tailed hawk, and American kestrel. The only mammal observed was the ground squirrel.

The Los Angeles State Historic Park is now open, with most of the construction complete. Vegetation is dominated by grass, with occasional trees and shrubs. Dominant wildlife at the site is birds, such as sparrows and starlings.

3.7.2.6 Downtown Industrial Opportunity Area
The Downtown Industrial Opportunity Area is highly developed with parking lots, buildings, and a railroad yard. Very little vegetation exists, except scattered shrubs and the occasional landscaped yard. As one moves farther away from the river, the area becomes more light industrial/commercial, with few residential neighborhoods. Minimal wildlife exists in the area except animals found in highly urbanized areas—pigeons, sparrows, and rodents.
3.8 Land Use

This section is a discussion of land use in the project area. Data presented is based on current GIS land use data, the Los Angeles General Plan, and the related Community Plans and their General Land Use Maps for those community planning areas in and adjacent to the Los Angeles River. Identification of land use in Burbank and Glendale is based on the general plan, land use element of those cities.

3.8.1 General Resource Description

California State law (Government Code Section 65300) requires that each city prepare and adopt a comprehensive, long-term general plan for its future development. The general plans must contain seven elements, including land use, circulation, housing, conservation, open space, noise and safety. In addition to these, State law permits cities to include optional elements in their general plans, thereby providing local governments with the flexibility to address the specific needs and unique character of their jurisdictions. In the City of Los Angeles, the general plan contains citywide elements for all topics except land use for which community plans establish policy and standards for each of the 35 geographic areas. The general plans of the Cities of Glendale and Burbank also include land use elements. California State law requires that the day-to-day decisions of a city follow logically from and be consistent with the general plan. More specifically, Government Code Sections 65860, 66473.5 and 656474 require that zoning ordinances and subdivision and parcel map approvals be consistent with the general plan (City of Los Angeles 1995).

Additionally, specific plans are sometimes developed to describe allowable land uses, to identify open space, and to detail infrastructure availability and financing for a portion of a community. Specific plans implement but are not technically a part of the General Plan. Los Angeles has various specific plans throughout the city. A specific plan may not be adopted or amended unless the proposed plan or amendment is consistent with the general plan pursuant to State Code (65454). Zoning, subdivision, and public works projects must be consistent with the general plan and specific plan pursuant to §65455 (State of California 1998).

Generalized land use within the River Corridor is comprised of open space, industrial, commercial and residential uses as approved in the City of Los Angeles community plans and the land use elements of the general plans for the Cities of Glendale and Burbank. The distribution of existing land uses in the Los Angeles River Corridor and within each Opportunity Area are described in this chapter.

3.8.2 Affected Environment

The affected environment considered in this PEIR/PEIS includes the Los Angeles River Corridor and the five Opportunity Areas, as defined in Chapters 1 and 2. To identify land use characteristics for each area of interest, community plans and associated specific plans in and adjacent to the River Corridor and Opportunity Areas were identified and reviewed. Table 3.8-1 lists the community planning areas included in the PEIR/PEIS analysis.

<table>
<thead>
<tr>
<th>Community Planning Area</th>
<th>Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canoga Park, Winnetka,</td>
<td>Canoga Park Opportunity Area</td>
</tr>
<tr>
<td>Woodland Hills, West</td>
<td></td>
</tr>
<tr>
<td>Hills, West Hills</td>
<td></td>
</tr>
<tr>
<td>Reseda, West Van Nuys</td>
<td>River Corridor</td>
</tr>
<tr>
<td>Encino, Tarzana</td>
<td>River Corridor</td>
</tr>
<tr>
<td>Van Nuys, North Sherman</td>
<td>River Corridor</td>
</tr>
<tr>
<td>Oaksg</td>
<td></td>
</tr>
</tbody>
</table>
### Table 3.8-1
Community Planning Areas in or Adjacent to the Los Angeles River Corridor

<table>
<thead>
<tr>
<th>Community Planning Area</th>
<th>Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sherman Oaks, Studio City, Toluca Lake, Cahuenga Pass</td>
<td>River Corridor</td>
</tr>
<tr>
<td>North Hollywood, Valley Village</td>
<td>River Corridor</td>
</tr>
<tr>
<td>Hollywood</td>
<td>River Glen Opportunity Area</td>
</tr>
<tr>
<td>Northeast Los Angeles</td>
<td>River Glen Opportunity Area, Taylor Yard Opportunity Area</td>
</tr>
<tr>
<td>Silver Lake, Echo Park, Elysian Valley</td>
<td>Taylor Yard Opportunity Area, Chinatown-Cornfields Opportunity Area</td>
</tr>
<tr>
<td>Central City North</td>
<td>Chinatown-Cornfields Opportunity Area, Downtown Industrial Opportunity Area</td>
</tr>
<tr>
<td>Central City</td>
<td>Downtown Industrial Opportunity Area</td>
</tr>
<tr>
<td>Boyle Heights</td>
<td>Downtown Industrial Opportunity Area</td>
</tr>
</tbody>
</table>

#### 3.8.2.1 River Corridor

The River Corridor includes parts of the cities of Los Angeles, Burbank, and Glendale. The land use element of each city’s general plan identifies the approved land uses within the River Corridor. The land use element of the City of Los Angeles is broken into distinct Community Planning Areas (CPAs). As shown in Table 3.8-1, the River Corridor is within or adjacent to 12 CPAs of the City of Los Angeles. Land use within each CPA is specified in the general land use map for each area. In some cases there are additional specific plans to further guide land uses in defined areas to meet the goals of special city programs and initiatives.

Of the 15,570 acres within the River Corridor, the most prevalent land use is Open Space, Public, and Quasi-Public Lands, which accounts for approximately 40 percent of land use. The next largest land use category is for Low Density Housing, accounting for approximately 30 percent of land use in the River Corridor. Medium Density Housing and Heavy Industry each account for approximately 10 percent of land use in the area, and Light Industry and Neighborhood Commerce each account for approximately five percent. The general land uses within the River Corridor are summarized in Table 3.8-2 and Figure 3.8-1.

### Table 3.8-2
Existing Land Use in the River Corridor

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Area (Acres)</th>
<th>Percent of Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Space/Public and Quasi-Public Lands including Publicly Owned Agriculture Lands (~340 acres at Sepulveda Basin)</td>
<td>6,183.7</td>
<td>39.7%</td>
</tr>
<tr>
<td>Low Density Housing</td>
<td>4,584.5</td>
<td>29.5%</td>
</tr>
<tr>
<td>Medium Density Housing</td>
<td>1,604.3</td>
<td>10.3%</td>
</tr>
<tr>
<td>Heavy Industry</td>
<td>1,402.4</td>
<td>9.0%</td>
</tr>
<tr>
<td>Light Industry</td>
<td>819.3</td>
<td>5.3%</td>
</tr>
<tr>
<td>Neighborhood Commerce</td>
<td>786.2</td>
<td>5.1%</td>
</tr>
<tr>
<td>Regional Commerce</td>
<td>173.3</td>
<td>1.1%</td>
</tr>
<tr>
<td>Other</td>
<td>10.8</td>
<td>0.1%</td>
</tr>
<tr>
<td>Parking</td>
<td>1.2</td>
<td>0.0%</td>
</tr>
<tr>
<td>High Density Housing</td>
<td>0.7</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>15,566.3</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>
3.8.2.2 Canoga Park Opportunity Area

The Canoga Park Opportunity Area is composed of approximately 460 acres. The most prevalent land use in the area is Light Industry, which accounts for 31 percent of land use. Medium Density Housing is the next largest land use, accounting for approximately 19 percent of the total land use. Other land uses are summarized in Table 3.8-3 and Figure 3.8-2.

Table 3.8-3
Existing Land Use in Canoga Park Opportunity Area

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Area (Acres)</th>
<th>Percent of Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light Industry</td>
<td>141.8</td>
<td>30.8%</td>
</tr>
<tr>
<td>Medium Density Housing</td>
<td>86.9</td>
<td>18.9%</td>
</tr>
<tr>
<td>Open Space/Public and Quasi-Public Lands</td>
<td>75.1</td>
<td>16.3%</td>
</tr>
<tr>
<td>Neighborhood Commerce</td>
<td>63.7</td>
<td>13.8%</td>
</tr>
<tr>
<td>Regional Commerce</td>
<td>62.3</td>
<td>13.6%</td>
</tr>
<tr>
<td>Low Density Housing</td>
<td>30.1</td>
<td>6.5%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>459.7</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
The entire Canoga Park Opportunity Area falls within the Canoga Park-Winnetka-Woodland Hills Community Plan Area. Figures 3.8-3 to 3.8-5 show the Generalized Land Use Map, Specific Plan Areas Map, and Other Plans/Guidelines Map from the Community Plan. (City of Los Angeles 1993).
Figure 3.8-3
Canoga Park – Winnetka – Woodland Hills Community Plan Generalized Land Use Map
Figure 3.8-4
Canoga Park – Winnetka – Woodland Hills Community Plan Specific Plan Areas

Specific Plan Area
Canoga Park - Winnetka - Woodland Hills
Figure 3.8-5
Canoga Park – Winnetka – Woodland Hills Community Area Other Plans and Guidelines

For details refer to:
- Downtown Canoga Park Community Design Overlay (CDO) - Ordination No. 179308
- Canoga Park Commercial Corridor Community Design Overlay (CDO - Ord No 174159)

Other Plans / Guidelines
Canoga Park - Winnetka - Woodland Hills
### 3.8.2.3 River Glen Opportunity Area

The River Glen Opportunity Area is composed of approximately 261 acres. The most prevalent land use in the area is Open Space/Public and Quasi-Public Lands, which accounts for 50 percent of land use. Heavy Industry is the next largest land use, accounting for approximately 49 percent of the total in the Opportunity Area. Other existing land uses are summarized in Table 3.8-4 and Figure 3.8-6.

The Opportunity Area falls within the Hollywood CPA and the Northeast Los Angeles CPA. Figures 3.8-7 through 3.8-12 show the Generalized Land Use Map, Specific Plan Areas Map, and Other Plans/Guidelines Map from the two Community Plans corresponding to each CPA. (City of Los Angeles 1992c and undated[c]). Figure 3.8-13 shows the Land Use Element of the City of Glendale General Plan (City of Glendale 2005).

#### Table 3.8-4
Existing Land Use in River Glen Opportunity Area

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Area (Acres)</th>
<th>Percent of Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Space/Public and Quasi-Public Lands</td>
<td>131.3</td>
<td>50%</td>
</tr>
<tr>
<td>Heavy Industry</td>
<td>126.7</td>
<td>49%</td>
</tr>
<tr>
<td>Light Industry</td>
<td>2.7</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>0.3</td>
<td>0%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>260.9</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

#### Figure 3.8-6
Existing Land Use in River Glen Opportunity Area
Figure 3.8-7
Hollywood Community Plan Generalized Land Use Map
Figure 3.8-8
Hollywood Community Plan Specific Plan Areas Map
Figure 3.8-9
Hollywood Community Plan Other Plans/Guidelines Map
Figure 3.8-10
Northeast Los Angeles Community Plan Generalized Land Use Map
Figure 3.8-11
Northeast Los Angeles Community Plan Specific Plan Areas Map

FOR DETAILS REFER TO:
- Colorado Boulevard
  Specific Plan-Ord No 168046
- Mount Washington/Glendale Park
  Specific Plan-Ord No 169707

SPECIFIC PLAN AREA
NORTHEAST LOS ANGELES
Figure 3.8-12
Northeast Los Angeles Community Plan Other Plans/Guidelines Map

FOR DETAILS REFER TO:
- Highland Park Inventory Reservation
  Overlay Zone - Ordinance No. 169776
- Atwater Village Pedestrian Oriented Development
  Overlay - Ordinance No. 170570
- Lincoln Heights Community Design
  Overlay - Ordinance No. 170606
- Lincoln Heights Historic Preservation
  Overlay Zone - Ordinance No. 170154

OTHER PLANS / GUIDELINES
NORTHEAST LOS ANGELES
3.8.2.4 Taylor Yard Opportunity Area

The Taylor Yard Opportunity Area is composed of approximately 1,040 acres. The most prevalent land use in the area is Open Space/Public and Quasi-Public Lands, which accounts for 40 percent of land use. Heavy Industry is the next largest land use, accounting for approximately 23 percent. Other existing land uses are summarized in Table 3.8-5 and Figure 3.8-14. The Opportunity Area falls within the Northeast Los Angeles CPA and the Silver Lake-Echo Park-Elysian Valley CPA. Figures 3.8-10 through 3.8-12 show the Generalized Land Use Map, Specific Plan Areas Map, and Other Plans/Guidelines Map for the Northeast Los Angeles CPA. (City of Los Angeles 1992c, Figures 3.8-14 through 3.8-16 correspond to the Silver Lake, Echo Park, Elysian Valley CPA. (City of Los Angeles 1992b)

Table 3.8-5
Existing Land Use in Taylor Yard Opportunity Area

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Area (Acres)</th>
<th>Percent of Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Space/Public and Quasi-Public Lands</td>
<td>411.0</td>
<td>39.6%</td>
</tr>
<tr>
<td>Heavy Industry</td>
<td>241.2</td>
<td>23.2%</td>
</tr>
<tr>
<td>Light Industry</td>
<td>154.1</td>
<td>14.8%</td>
</tr>
<tr>
<td>Low Density Housing</td>
<td>115.7</td>
<td>11.1%</td>
</tr>
<tr>
<td>Medium Density Housing</td>
<td>97.1</td>
<td>9.3%</td>
</tr>
<tr>
<td>Neighborhood Commerce</td>
<td>18.1</td>
<td>1.7%</td>
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<tr>
<td>Other</td>
<td>1.2</td>
<td>0.1%</td>
</tr>
<tr>
<td>Parking</td>
<td>0.4</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,038.8</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Figure 3.8-14
Land Use in Taylor Yard Opportunity Area
Figure 3.8-15
Silver Lake-Echo Park-Elysian Valley Community Plan Generalized Land Use Map
Figure 3.8-16
Silver Lake-Echo Park-Elysian Valley Community Plan Specific Plan Areas Map

FOR DETAILS REFER TO:
- General City West Specific Plan - Ordinance No. 187944
- Verona/Western Station
  Neighborhood Area Plan
  Ordinance No. 175749

SPECIFIC PLAN AREAS
SILVER LAKE - ECHO PARK - ELYSIAN VALLEY
Figure 3.8-17
Silver Lake-Echo Park-Elysian Valley Community Plan Other Plans/Guidelines Map
3.8.2.5 Chinatown-Cornfields Opportunity Area
The Chinatown-Cornfields Opportunity Area is approximately 241 acres. The most prevalent land use in the area is Light Industry, which accounts for 50 percent of land use. Open Space/Public and Quasi-Public Lands is the next largest land use, accounting for approximately 28 percent of the total in the area. Other existing land uses are summarized in Table 3.8-6 and Figure 3.8-18. The Opportunity Area falls within the Silver Lake-Echo Park-Elysian Valley CPA and the Central City North CPA. Figures 3.8-14 through 3.8-16 showed the Generalized Land Use Map, Specific Plan Areas Map, and Other Plans/Guidelines Map for the Silver Lake-Echo Park-Elysian Valley CPA (City of Los Angeles 1992b). Figures 3.8-19 and 3.8-20 correspond to the Central City North CPA (City of Los Angeles undated[e]).

Table 3.8-6
Existing Land Use in Chinatown-Cornfields Opportunity Area

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Area (Acres)</th>
<th>Percent of Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light Industry</td>
<td>120.6</td>
<td>50.1%</td>
</tr>
<tr>
<td>Open Space/Public and Quasi-Public Lands</td>
<td>67.6</td>
<td>28.1%</td>
</tr>
<tr>
<td>Heavy Industry</td>
<td>22.3</td>
<td>9.3%</td>
</tr>
<tr>
<td>Medium Density Housing</td>
<td>22.0</td>
<td>9.1%</td>
</tr>
<tr>
<td>Regional Commerce</td>
<td>6.9</td>
<td>2.9%</td>
</tr>
<tr>
<td>Neighborhood Commerce</td>
<td>1.1</td>
<td>0.5%</td>
</tr>
<tr>
<td>Other</td>
<td>0.3</td>
<td>0.1%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>240.8</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
Figure 3.8-19
Central City North Community Plan Generalized Land Use Map
Figure 3.8-20
Central City North Community Plan Specific Plan Areas Map

FOR DETAILS REFER TO:

- Alameda District Specific Plan - Ordinance No. 177130
- Conditional Use Approval For Use Of Alcohol-Ord No. 168128

SPECIFIC PLAN AREAS
CENTRAL CITY NORTH
3.8.2.6 Downtown Industrial Opportunity Area

The Downtown Industrial Opportunity Area is approximately 658 acres. The most prevalent land use is Heavy Industry, which accounts for 32 percent of land use. Open Space/Public and Quasi-Public Lands is the next largest land use, accounting for approximately 27 percent. Other land uses are summarized in Table 3.8-7 and Figure 3.8-20. The Opportunity Area falls within the Central City North CPA, the Central City CPA, and the Boyle Heights CPA. Figures 3.8-18 and 3.8-19 show the Generalized Land Use Map and Specific Plan Areas Map for the Central City North CPA. (City of Los Angeles undated[e]) Figures 3.8-21 and 3.8-22 correspond to the Central City CPA (City of Los Angeles undated[e]), and Figure 3.8-23 corresponds to the Boyle Heights CPA (City of Los Angeles 1998c).

Table 3.8-7
Land Use in Downtown Industrial Opportunity Area

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Area (Acres)</th>
<th>Percent of Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy Industry</td>
<td>212.4</td>
<td>32%</td>
</tr>
<tr>
<td>Open Space/Public and Quasi-Public Lands</td>
<td>179.6</td>
<td>27%</td>
</tr>
<tr>
<td>Medium Density Housing</td>
<td>132.0</td>
<td>20%</td>
</tr>
<tr>
<td>Light Industry</td>
<td>98.1</td>
<td>15%</td>
</tr>
<tr>
<td>Neighborhood Commerce</td>
<td>28.8</td>
<td>4%</td>
</tr>
<tr>
<td>Regional Commerce</td>
<td>6.5</td>
<td>1%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>657.5</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Figure 3.8-21
Land Use in Downtown Industrial Area Opportunity Area
Figure 3.8-22
Central City Community Plan Generalized Land Use Map
Figure 3.8-23
Central City Community Plan Specific Plan Areas Map
Figure 3.8-24
Boyle Heights Community Plan Generalized Land Use Map
3.9 Recreation

This section is a discussion of the recreational resources in the project area. Recreational resources addressed in this PEIR/PEIS include parks, facilities, and bikeways.

3.9.1 General Resource Description

The Los Angeles River Corridor and vicinity includes a mix of urbanized areas surrounded by the natural open space areas of the Santa Monica Mountains National Recreation Area to the southwest, Simi Hills to the west, the Santa Susana Mountains to the northwest, and the San Gabriel Mountains to the northeast. The watershed is entirely within Los Angeles County and the project area is entirely within the cities of Los Angeles, Burbank, and Glendale, with most of the project area falling within the city of Los Angeles. The Los Angeles River watershed includes a variety of recreation areas, including many regional and local neighborhood parks (CRA 2001).

The City of Los Angeles Department of Recreation and Parks (DRP) is responsible for most of the parks and recreation facilities in the project area, providing the public with a variety of recreational opportunities. Typical city park facilities and outdoor recreational activities include playing sports, biking, concert going, fishing, hiking, boating, golfing, horseback riding, taking train rides, and enjoying universally accessible playgrounds. DRP also provides activity centers, youth activity programs, adult and youth sports programs, museums, senior centers, and other special venues (LADRP 2006). Similar parks and recreational services are provided in Glendale and Burbank. Parks in Glendale are operated and maintained by the City of Glendale Department of Parks, Recreation & Community Services; parks in Burbank are operated and maintained by the City of Burbank Park, Recreation & Community Services Department.

3.9.2 Affected Environment

The affected environment regarding potential effects on recreational resources in the project area evaluated in this PEIR/PEIS includes the River Corridor and the five opportunity areas previously defined in Chapters 1 and 2 of this PEIR/PEIS. Based on analysis guidance included in the Draft Los Angeles CEQA Thresholds Guide (City of Los Angeles 1998c), recreational facilities within a two-mile radius of the project area are identified in this section.

3.9.2.1 River Corridor

Current GIS data of the City of Los Angeles and the 2006 Los Angeles Thomas Guide Map was used to locate these recreational facilities (Thomas Bros. 2006). Recreational facilities within Burbank and Glendale were identified on recreation guides provided by those cities’ Web sites. Table 3.9-1 lists the public parks within a two-mile radius of the River Corridor. City of Los Angeles parks and facilities are listed first in alphabetical order, followed by Burbank and Glendale parks and facilities. Fifty-one of the listed parks fall within the footprint of the River Corridor, as indicated in Table 3.9-1. The table also notes if each park is within the footprint of, or within, a two-mile radius of an opportunity area. The locations of these parks and facilities are shown on Figure 3.9-1.

In addition to the existing parks listed in Table 3.9-1, several parks are at various stages of planning or construction in the project area. These include the Rio de Los Angeles State Park within the Taylor Yard Opportunity Area, the Los Angeles State Historic Park within the Chinatown-Cornfields Opportunity Area, and a proposed sports complex facility at the Sepulveda Basin.
# Table 3.9-1
Parks within a Two-Mile Radius of the River Corridor

<table>
<thead>
<tr>
<th>Parks and Park Facilities</th>
<th>Address</th>
<th>COMPONENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>River Corridor</td>
</tr>
<tr>
<td><strong>City of Los Angeles</strong></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1. 6th and Gladys Park</td>
<td>6th and Gladys St., Los Angeles, CA 90021</td>
<td>2</td>
</tr>
<tr>
<td>2. Aliso Pico Recreation Center</td>
<td>370 South Clarence Street Los Angeles, CA 90033</td>
<td>1</td>
</tr>
<tr>
<td>3. Alpine Park and Recreation Center</td>
<td>817 Yale Street Los Angeles, CA 90012</td>
<td>2</td>
</tr>
<tr>
<td>4. Balboa Golf Course and Sports Center</td>
<td>16821 Burbank Boulevard Encino, CA 91436</td>
<td>1</td>
</tr>
<tr>
<td>5. Boyle Heights Sports Center</td>
<td>933 South Mott Street Los Angeles, CA 90023</td>
<td>1</td>
</tr>
<tr>
<td>6. Canoga Park Sr. Citizen Center</td>
<td>7326 Jordan Avenue Canoga Park, CA 91303</td>
<td>1</td>
</tr>
<tr>
<td>7. Carlin G. Smith Recreation Center</td>
<td>511 West Avenue 46 Los Angeles, CA 90065</td>
<td>2</td>
</tr>
<tr>
<td>8. Chevy Chase Park</td>
<td>4165 Chevy Chase Drive Los Angeles, CA 90039</td>
<td>1</td>
</tr>
<tr>
<td>9. Chevy Chase Recreation Center</td>
<td>4165 Chevy Chase Drive Los Angeles, CA 90039</td>
<td>1</td>
</tr>
<tr>
<td>10. City Hall Park Center</td>
<td>200 North Main Street Los Angeles, CA 90012</td>
<td>1</td>
</tr>
<tr>
<td>11. Cleveland High School Pool</td>
<td>8120 Vanalden Avenue Reseda, CA 91335</td>
<td>2</td>
</tr>
<tr>
<td>12. Cohasset Melba Park</td>
<td>On Cohasset Street and Melba Avenue West Hills, CA 91307</td>
<td>2</td>
</tr>
<tr>
<td>13. Coldwater Canyon Park</td>
<td>12601 Mulholland Drive Los Angeles, CA 90210</td>
<td>2</td>
</tr>
<tr>
<td>14. Costello Child Care</td>
<td>N/A</td>
<td>1</td>
</tr>
<tr>
<td>15. Costello Recreation Center</td>
<td>3141 East Olympic Boulevard Los Angeles, CA 90023</td>
<td>2</td>
</tr>
<tr>
<td>16. Costello Sr. Citizen Center</td>
<td>3121 East Olympic Boulevard Los Angeles, CA 90023</td>
<td>1</td>
</tr>
</tbody>
</table>
### Table 3.9-1
Parks within a Two-Mile Radius of the River Corridor

<table>
<thead>
<tr>
<th>Parks and Park Facilities</th>
<th>Address</th>
<th>COMPONENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>River Corridor</td>
</tr>
<tr>
<td>17  Cypress Park and Recreation Center</td>
<td>2630 Pepper Avenue Los Angeles, CA 90065</td>
<td>1</td>
</tr>
<tr>
<td>18  Debs, Ernest E. Regional Park</td>
<td>4235 Monterey Road Los Angeles, CA 90032</td>
<td>2</td>
</tr>
<tr>
<td>19  Downey Recreation Center and Playground</td>
<td>1772 North Spring Street, Los Angeles, CA 90031</td>
<td>1</td>
</tr>
<tr>
<td>20  East Los Angeles Park</td>
<td>2500 North Eastlake Avenue, Los Angeles, CA 90031</td>
<td>2</td>
</tr>
<tr>
<td>21  El Paseo De Cahuenga Park</td>
<td>3300 Cahuenga Boulevard, Los Angeles, CA 90068</td>
<td>2</td>
</tr>
<tr>
<td>22  Elyria Canyon Park</td>
<td>1550 Bridgeport Drive, Los Angeles, CA 90065</td>
<td>2</td>
</tr>
<tr>
<td>23  Elysian Park</td>
<td>835 Academy Road Los Angeles, CA 90012</td>
<td>1</td>
</tr>
<tr>
<td>24  Elysian Park Therapeutic Recreation Center</td>
<td>929 Academy Road Los Angeles, CA 90012</td>
<td>1</td>
</tr>
<tr>
<td>25  Elysian Valley Recreation Center</td>
<td>1811 Ripple Street Los Angeles, CA 90039</td>
<td>1</td>
</tr>
<tr>
<td>26  Encino Golf Course</td>
<td>16821 Burbank Boulevard Encino, CA 91436</td>
<td>1</td>
</tr>
<tr>
<td>27  Ernest E. Debs Park Center</td>
<td>4235 Monterey Road Los Angeles, CA 90052</td>
<td>2</td>
</tr>
<tr>
<td>28  Erwin Park</td>
<td>Erwin Street and Ethel Avenue Van Nuys, CA 91401</td>
<td>2</td>
</tr>
<tr>
<td>29  Glassell Park and Recreation Center</td>
<td>3650 Verdugo Road Los Angeles, CA 90065</td>
<td>2</td>
</tr>
<tr>
<td>30  Glenhurst Park</td>
<td>2932 Glenhurst Los Angeles, CA 90039</td>
<td>1</td>
</tr>
<tr>
<td>31  Greaver Oak Park</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>32  Griffith Park and Recreation Center</td>
<td>3401 Riverside Drive Los Angeles, CA 90027</td>
<td>1</td>
</tr>
<tr>
<td>33  Harding Golf Course</td>
<td>4730 Crystal Springs Dr. Los Angeles, CA 90027</td>
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</tbody>
</table>
### Table 3.9-1
**Parks within a Two-Mile Radius of the River Corridor**

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>River Corridor</th>
<th>Opportunity Area</th>
<th>Opportunity Area</th>
<th>Opportunity Area</th>
<th>Opportunity Area</th>
<th>Industrial Opportunity Area</th>
</tr>
</thead>
<tbody>
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<td>Parks and Park Facilities</td>
<td>Address</td>
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<td></td>
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<tr>
<td>34 Heritage Square</td>
<td></td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35 Hjelte Sports Center</td>
<td>16200 Burbank Boulevard Encino, CA 91436</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>36 Hollenbeck Park and Recreation Center</td>
<td>415 South Saint Louis Street Los Angeles, CA 90033</td>
<td>2</td>
<td></td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>37 Hostetter Playground</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>38 Jesse Owens Park</td>
<td>7100 White Oak Reseda, CA 91335</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>39 John Quimby Park</td>
<td>7008 De Soto Avenue Canoga Park, CA 91306</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 Kittridge Mini Park</td>
<td>Kittridge / Greenbush Van Nuys, CA 91401</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>41 Los Angeles Youth Athletic Club</td>
<td>401 North Avenue 19 Los Angeles, CA 90031</td>
<td>1</td>
<td></td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>42 Lake Balboa Park</td>
<td>17015 Burbank Boulevard Encino, CA 91316</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>43 Lanark Park and Recreation Center with Swimming Pool</td>
<td>21816 Lanark Street Canoga Park, CA 91304</td>
<td>2</td>
<td></td>
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<td>2</td>
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<tr>
<td>44 Libbit Park</td>
<td>5101 Libbit Avenue Encino, CA 91436</td>
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<td></td>
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<tr>
<td>45 Lincoln Heights Recreation Center</td>
<td>2303 Workman Street Los Angeles, CA 90031</td>
<td>1</td>
<td></td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>46 Lincoln Heights Sr. Citizen Center</td>
<td>2323 Workman Street Los Angeles, CA 90031</td>
<td>2</td>
<td></td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>47 Lincoln Park</td>
<td>3501 Valley Boulevard Los Angeles, CA 90031</td>
<td></td>
<td></td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>48 Los Feliz Golf Course</td>
<td>3207 Los Feliz Boulevard Los Angeles, CA 90039</td>
<td>1</td>
<td></td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>49 Lummis Park</td>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>50 Montecito Heights Recreation Center</td>
<td>4545 Homer Street Los Angeles, CA 90031</td>
<td>2</td>
<td></td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>51 Montecito Heights Sr. Citizen Center</td>
<td>4545 Homer Street Los Angeles, CA 90031</td>
<td>2</td>
<td></td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>52 Moorpark Park</td>
<td>12061 Moorpark Street Los Angeles, CA 91607</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
### Table 3.9-1
Parks within a Two-Mile Radius of the River Corridor

<table>
<thead>
<tr>
<th>Parks and Park Facilities</th>
<th>Address</th>
<th>COMPONENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>River Corridor</td>
</tr>
<tr>
<td>53 Municipal Sports</td>
<td>2459 Motor Ave Los Angeles, CA 90064</td>
<td>1</td>
</tr>
<tr>
<td>54 North Atwater Park</td>
<td>3900 West Chevy Chase Drive Los Angeles, CA 90039</td>
<td>1 2 2 1</td>
</tr>
<tr>
<td>55 North Hollywood Park</td>
<td>5301 Tujunga Avenue North Hollywood, CA 91601</td>
<td>2</td>
</tr>
<tr>
<td>56 North Weddington</td>
<td>10844 Acama Drive Los Angeles, CA 91602</td>
<td>1</td>
</tr>
<tr>
<td>57 Parthenia Park</td>
<td>21444 Parthenia Street Canoga Park, CA 91304</td>
<td>2 2</td>
</tr>
<tr>
<td>58 Pecan Park and Recreation Center and Playground</td>
<td>560 North Western Avenue Rancho Palos Verdes, CA 90732</td>
<td>1 2 2 1</td>
</tr>
<tr>
<td>59 Prospect Park</td>
<td>Echandia and Judson Los Angeles, CA 90033</td>
<td>2 2 2 2</td>
</tr>
<tr>
<td>60 Ramon Garcia Recreation Center</td>
<td>1016 South Fresno Street Los Angeles, CA 90023</td>
<td>2 2</td>
</tr>
<tr>
<td>61 Ramona Hall Community Center</td>
<td>4580 North Figueroa Street Los Angeles, CA 90042</td>
<td>2 2</td>
</tr>
<tr>
<td>62 Reseda Park and Recreation Center with Swimming Pool</td>
<td>18411 Victory Boulevard Reseda, CA 91335</td>
<td>1</td>
</tr>
<tr>
<td>63 Roosevelt Pool</td>
<td>456 South Mathews Street Los Angeles, CA 90033</td>
<td>1 2 1</td>
</tr>
<tr>
<td>64 Rose Hill Park and Recreation Center</td>
<td>3606 North Boundary Los Angeles, CA 90032</td>
<td>2 2 2</td>
</tr>
<tr>
<td>65 Runnymede Recreation Center</td>
<td>20200 Runnymede Street Winnetka, CA 91306</td>
<td>2 2</td>
</tr>
<tr>
<td>66 Santa Monica Mountains National Recreation Area</td>
<td>401 West Hillcrest Drive Thousand Oaks, CA</td>
<td>2</td>
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</tbody>
</table>
### Parks within a Two-Mile Radius of the River Corridor

<table>
<thead>
<tr>
<th>Parks and Park Facilities</th>
<th>Address</th>
<th>COMPONENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>River Corridor</td>
</tr>
<tr>
<td>Sepulveda Dam Recreation Area</td>
<td>17017 Burbank Boulevard Encino, CA 91316</td>
<td>1</td>
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<tr>
<td>Sepulveda Garden Center</td>
<td>16633 Magnolia Boulevard Encino, CA 91316</td>
<td>2</td>
</tr>
<tr>
<td>Shadow Ranch Park</td>
<td>22633 Vanowen Street West Hills, CA 91307</td>
<td>2 2</td>
</tr>
<tr>
<td>Smith, Carlin Playground Park</td>
<td>511 West Avenue 46 Los Angeles, CA 90065</td>
<td>2 2 2</td>
</tr>
<tr>
<td>State Street Child Care</td>
<td></td>
<td>2 2 2</td>
</tr>
<tr>
<td>State Street Recreation Center</td>
<td>716 North State Street Los Angeles, CA 90033</td>
<td>2 2 2 2</td>
</tr>
<tr>
<td>Studio City Recreation Center</td>
<td>12621 Rye Street Studio City, CA 91604</td>
<td>1</td>
</tr>
<tr>
<td>Sycamore Grove Park</td>
<td>4702 North Figueroa Los Angeles, CA 90041</td>
<td>2 2</td>
</tr>
<tr>
<td>Tarzana Recreation Park</td>
<td>5655 Vanalden Avenue Tarzana, CA 91356</td>
<td>2</td>
</tr>
<tr>
<td>V.N.S.O.</td>
<td>14201 Huston Street Van Nuys, CA 91423</td>
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</tr>
<tr>
<td>Valley Plaza Park</td>
<td>12240 Archwood Street North Hollywood, CA 91606</td>
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</tr>
<tr>
<td>Van Nuys-Sherman Oaks Park and Recreation Center with Pool</td>
<td>14201 Huston Street Van Nuys, CA 91423</td>
<td>1</td>
</tr>
<tr>
<td>Van Nuys-Sherman Oaks Sr. Citizen Center</td>
<td>5040 Van Nuys Blvd. Sherman Oaks, CA 91423</td>
<td>1</td>
</tr>
<tr>
<td>Vest Pocket Park</td>
<td>1st and Chicago Streets Los Angeles, CA 90033</td>
<td>2 2 2</td>
</tr>
<tr>
<td>Warner Ranch Park</td>
<td>5800 Topanga Canyon Boulevard Woodland Hills, CA 91367</td>
<td>2 2</td>
</tr>
<tr>
<td>Weddington Park South</td>
<td>10800 Valley Heart Drive Los Angeles, CA 91602</td>
<td>1</td>
</tr>
<tr>
<td>West Valley Park</td>
<td>6731 Wilbur Avenue Reseda, CA 91335</td>
<td>1</td>
</tr>
</tbody>
</table>
### Table 3.9-1

#### Parks within a Two-Mile Radius of the River Corridor

| COMPONENT | Key: 1 = Within the River Corridor or opportunity area  
2 = Not within the River Corridor or opportunity area but within two miles |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Parks and Park Facilities</td>
<td>Address</td>
</tr>
<tr>
<td>84</td>
<td>West Valley Sr. Citizen Center</td>
</tr>
<tr>
<td>85</td>
<td>Wilacre Park</td>
</tr>
<tr>
<td>86</td>
<td>Wilson Golf Course</td>
</tr>
<tr>
<td>87</td>
<td>Winnetka Recreation Center</td>
</tr>
<tr>
<td>88</td>
<td>Woodbridge Park</td>
</tr>
<tr>
<td>89</td>
<td>Woodland Hills Recreation Center</td>
</tr>
<tr>
<td>90</td>
<td>Woodley Avenue Park</td>
</tr>
<tr>
<td>91</td>
<td>Woodley Lakes Golf Course</td>
</tr>
</tbody>
</table>

#### City of Burbank

| COMPONENT | Key: 1 = Within the River Corridor or opportunity area  
2 = Not within the River Corridor or opportunity area but within two miles |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>Joaquin Miller Park</td>
</tr>
<tr>
<td>B2</td>
<td>George Izay Park</td>
</tr>
<tr>
<td>B3</td>
<td>Pickwick Recreation Center</td>
</tr>
<tr>
<td>B4</td>
<td>Mountain View Park</td>
</tr>
<tr>
<td>B5</td>
<td>Whitnall Highway Park South</td>
</tr>
<tr>
<td>B6</td>
<td>Verdugo Park</td>
</tr>
<tr>
<td>B7</td>
<td>Johnny Carson Park</td>
</tr>
<tr>
<td>B8</td>
<td>Whitnall Highway Park North</td>
</tr>
<tr>
<td>B9</td>
<td>Abraham Lincoln Buena Vista Park</td>
</tr>
</tbody>
</table>
Table 3.9-1  
Parks within a Two-Mile Radius of the River Corridor

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>River Corridor</th>
<th>Opportunity Area</th>
<th>Opportunity Area</th>
<th>Opportunity Area</th>
<th>Opportunity Area</th>
<th>Industrial Opportunity Area</th>
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<tbody>
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<td>Parks and Park Facilities</td>
<td>Address</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>City of Glendale</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G1 Palmer Park</td>
<td>610 E. Palmer, Glendale, CA 91205</td>
<td>2</td>
<td>2</td>
<td>2</td>
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<td></td>
</tr>
<tr>
<td>G2 Maple Park</td>
<td>820 E. Maple Ave., Glendale, CA 91205</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
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</tr>
<tr>
<td>G3 Pacific Park</td>
<td>501 S. Pacific Ave., Glendale, CA 91204</td>
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<tr>
<td>G4 Glendale Central Park</td>
<td>201 East Colorado, Glendale, CA 91205</td>
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</tr>
<tr>
<td>G5 Carr Park</td>
<td>1615 E. Colorado, Glendale, CA 91205</td>
<td>2</td>
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<td></td>
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<tr>
<td>G6 Wilson Mini Park</td>
<td>1101 E. Wilson Ave., Glendale, CA 91206</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G7 Piedmont Park</td>
<td>1145 E. Lexington Dr., Glendale, CA 91206</td>
<td>2</td>
<td>2</td>
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<td></td>
</tr>
<tr>
<td>G8 Milford Mini Park</td>
<td>601 W. Milford, Glendale, CA 91203</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>G9 Fremont Park</td>
<td>600 Hahn Glendale, CA 91203</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G10 Pelanconi Park</td>
<td>1000 Grandview Ave., Glendale, CA 91201</td>
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<td>2</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>G11 Griffith Manor Park</td>
<td>1551 Flower St., Glendale, CA 91201</td>
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<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G12 Nibley Park</td>
<td>1103 E. Mountain, Glendale, CA 91207</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G13 Brand Park</td>
<td>1601 W Mountain St., Glendale, CA 91201</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key: 1 = Within the River Corridor or opportunity area  
2 = Not within the River Corridor or opportunity area but within two miles
FIGURE 3.9-1
PARKS AND RECREATIONAL FACILITIES
Los Angeles River Revitalization Master Plan PEIR/PEIS

LEGEND
(See Table 3.9-1)
- Recreational Facilities
- Parks
- Opportunity Areas
- Los Angeles River Corridor
- Los Angeles River and Tributaries
- Major Arterial Highways
- Freeways

Los Angeles County
City of Los Angeles

0 0.5 1 2 3 4
Miles
**Parks Under Development**

**Rio de Los Angeles State Park**

Rio de Los Angeles State Park, currently under development in northeast Los Angeles, is approximately 2.5 miles north of downtown. The park is being developed by the California State Department of Parks and Recreation in association with the City of Los Angeles Department of Parks and Recreation. The park is next to the former Union Pacific Rail Yard called the Taylor Yard complex, between the Elysian Park Hills on the southwest and the Repetto Hills on the northeast. The Taylor Yard complex and park site is one of the largest undeveloped areas along the Los Angeles River.

The park and vicinity are part of the communities of northeast Los Angeles. The neighborhoods surrounding the park include Cypress Park, Glassell Park, Elysian Valley, Atwater Village, and Mount Washington. The 247-acre Taylor Yard complex was historically divided into ten parcels, some of which were further subdivided for sale purposes, and two of which—Parcels D and G-1—were purchased by the California State Parks for Rio de Los Angeles State Park. The 40-acre Parcel D, acquired in 2001, is between an active rail line and San Fernando Road; the 17-acre Parcel G-1, acquired in 2003, is between the river and an industrial development (California State Parks 2005).

**Los Angeles State Historic Park (LASHP)**

LASHP, most recently known as the Cornfield or Chinatown Yard property, is a 32-acre site linked to the long and varied history of the city and its diverse people. At the time of preparation of this PEIR/PEIS, the California State Department of Parks and Recreation is developing the LASHP. The site has historical significance and associations at many levels of the Los Angeles story, including its very existence as a state park, due to the efforts of one of the most diverse coalitions of local citizens, activists, and environmental justice advocates ever assembled. At its northern end, the site is about 150 feet from the Los Angeles River. Surrounding the park are the historic and ethnically diverse communities of Lincoln Heights, Elysian Park, Solano Canyon, Chinatown, Chavez Ravine, and William Mead Homes (California State Parks 2004).

**Sepulveda Sports Complex Facility**

A proposal by the City of Los Angeles Department of Public Works exists to construct a sports complex on an approximately 65-acre parcel of open space in Sepulveda Basin that is owned by the Corps and that has been leased for use as a commercial sod farm since the late 1980s. The proposed project would include four youth/teen softball fields, one synthetic soccer field, open multipurpose fields, picnic areas, a planted riparian buffer along the Los Angeles River, and a walking trail throughout the site. At the time of this PEIR/PEIS, the sports complex proposal was under evaluation and public comment (Corps 2006b).

**Bikeway Network**

In addition to the parks described above, there exist a series of bikeways that run through or intersect with the River Corridor. The Los Angeles River Bikeway is planned to eventually run 52 miles from Canoga Park to Long Beach. It currently extends from Victory Boulevard (at the 134 Freeway) to Fletcher Drive in Elysian Valley. This stretch includes the Alex Baum Bicycle Bridge over Los Feliz Boulevard, completed in 2002. An extension from Fletcher to Riverside and the Arroyo Seco bikeway is in development. With funding from the California Coastal Conservancy, North East Trees and the Los Angeles County Bike Coalition undertook a study exploring alternatives to close the seven-mile bikeway gap between the Arroyo Seco and Vernon. The bikeway picks up again in Vernon along the west bank of the Los Angeles River for a four-mile stretch to

Los Angeles River Revitalization Master Plan Final PEIR/PEIS
Los Angeles, California

3-85
Southgate. In Southgate, the bikeway becomes part of the Lario Trail system and runs along the river’s east bank downstream to Long Beach (River Project 2006b). The Non Motorized Transportation Plan of the City of Los Angeles’ Transportation Element of the General Plan is shown in Figure 3.9-2 (City of Los Angeles 1996a).

3.9.2.2 Canoga Park Opportunity Area
Two of the parks in Table 3.9-1 are within or immediately adjacent to the Canoga Park Opportunity Area. These facilities are described in Table 3.9-2.

<table>
<thead>
<tr>
<th>Parks within Canoga Park Opportunity Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Canoga Park Sr. Citizen Center</strong></td>
</tr>
<tr>
<td>Jurisdiction: Region: Valley; District: West Valley; Council District: 3</td>
</tr>
<tr>
<td>Neighborhood Service Area: South Valley</td>
</tr>
<tr>
<td>Public Information: The auditorium is also used as a community room; the capacity is 285.</td>
</tr>
<tr>
<td>Facility Features: Auditorium, community room</td>
</tr>
<tr>
<td>Sports Programs: None</td>
</tr>
<tr>
<td>Other Programs: Arts &amp; crafts, blood pressure test (last Friday of month), dance-line/tap, exercise, movies, needlepoint, senior nutrition program trips</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>John Quimby Park</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Jurisdiction: Region: Valley; District: West Valley; Council District: 3</td>
</tr>
<tr>
<td>Neighborhood Service Area: South Valley</td>
</tr>
<tr>
<td>Public Information: This park is unstaffed and open from dawn to dusk. There are no restrooms.</td>
</tr>
<tr>
<td>Facility Features: Unlighted outdoor basketball courts, children’s play area, unlighted tennis courts</td>
</tr>
</tbody>
</table>

Eight additional parks are within a two-mile radius of the Canoga Park Opportunity Area:

- Cohasset Melba Park;
- Lanark Park and Recreation Center with Swimming Pool;
- Parthenia Park;
- Runnymede Recreation Center;
- Shadow Ranch Park;
- Warner Ranch Park;
- Winnetka Recreation Center; and
- Woodland Hills Recreation Center.

3.9.2.3 River Glen Opportunity Area
Three of the parks in Table 3.9-1 are within or immediately adjacent to the River Glen Opportunity Area. These facilities are described in Table 3.9-3.
Table 3.9-3
Parks within River Glen Opportunity Area

| Jurisdiction: Griffith Park and Recreation Center | Region: Griffith/Metro; District: Griffith Council District: 4 |
| Neighborhood Service Area: | Central |
| Public Information: | Griffith Park contains Autry Museum of Western Heritage, Bird Sanctuary, Crystal Springs Picnic Area, Ferraro Soccer Fields, Friendship Auditorium, Ferndell Nature Center (closed), Griffith Observatory (closed for renovations), Griffith Park Miniature Train Rides, Griffith Park Drive tennis courts, Griffith-Riverside pay tennis courts, Griffith-Vermont pay tennis courts, Greek Theatre, Harding Golf Course/Clubhouse, Los Angeles Live Steamers, Los Feliz Golf Course, merry-go-round, Mineral Wells Picnic Area, Old Zoo Picnic Area, Park Center Picnic Area, Pecan Grove Picnic Area, pony rides, Rangers Station Headquarters, Roosevelt Golf Course, Shane’s Inspiration, Travel Town Museum, Wilson Golf Course. Soccer field available by permit only. Griffith Park does not have an advisory board but does have a Griffith Park Resource Board, which is co-chaired by Mark Mariscal and Tom Labonge. |
| Facility Features: | Children’s play area, picnic tables, restrooms, lighted soccer field, lighted and unlighted tennis courts |
| Special Features: | Hiking trails, horseback riding trails, refreshment stands, restaurants |

| Jurisdiction: Harding and Wilson Municipal Golf Courses | Region: Griffith/Metro; District: Griffith Council District: 4 |
| Neighborhood Service Area: | Central |
| Public Information: | Electrical golf carts are available for rent through concessions. Located within the facility is a pro shop where golf lessons are available. There is also a clubhouse with restaurant and banquet room. |
| Facility Hours of Operation: | Monday to Sunday: dawn to dusk |
| Special Features: | Two 18-hole championship courses, clubhouse, practice facility with driving range, pro shop, rentals, restaurant |

| Jurisdiction: Milford Mini Park (City of Glendale) | City of Glendale |
| Regional Service Area: | West Glendale |
| Size: | Approximately 0.3 acre |
| Amenities: | Children’s play area and picnic areas |

Sixteen additional parks are within a two-mile radius of the River Glen Opportunity Area:

- Chevy Chase Park;
- Chevy Chase Recreation Center;
- Los Feliz Golf Course;
- North Atwater Park;
- Palmer Park (Glendale);
- Maple Park (Glendale);
- Pacific Park (Glendale);
- Glendale Central Park/Adult Rec Center (Glendale);
- Carr Park (Glendale);
• Wilson Mini-Park (Glendale);
• Piedmont Park (Glendale);
• Fremont Park (Glendale);
• Pelanconi Park (Glendale);
• Griffith Manor Park (Glendale);
• Nibley Park (Glendale); and
• Brand Park (Glendale).

3.9.2.4 Taylor Yard Opportunity Area

Seven of the parks in Table 3.9-1 are within or immediately adjacent to the Taylor Yard Opportunity Area. These facilities are described in Table 3.9-4. Additionally, this opportunity area includes the Rio De Los Angeles State Park (described above), which is in development.

Table 3.9-4
Parks within Taylor Yard Opportunity Area

<table>
<thead>
<tr>
<th>Cypress Park and Recreation Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jurisdiction: Griffith/Metro; District: Griffith; Council District: 1</td>
</tr>
<tr>
<td>Neighborhood Service Area: East Los Angeles</td>
</tr>
<tr>
<td>Public Information: This is a Los Angeles Police Department Stop-In Center.</td>
</tr>
<tr>
<td>Facility Features: Auditorium, barbecue pits, children’s play area, indoor gym (with weights), picnic tables</td>
</tr>
<tr>
<td>Special Features: Indoor lighted basketball court and volleyball court, kitchen, multipurpose sports field with lighted ball diamond, stage</td>
</tr>
<tr>
<td>Sports Programs: Baseball, basketball (men/women and boys/girls division), flag football, football (youth), Girls Play L.A. (ages 13-15), softball, volleyball</td>
</tr>
<tr>
<td>Other Programs: Aerobics, after school program, arts &amp; crafts, Ballet Folklorico, basic science class (ages 5-13), community service, day camp (Camp Go Bananas), field trips, L.A. Kids, year-round lunch program, music, preschool (Head Start), teen program (class parks), tutoring, weight lifting, Youth Enrichment, Youth Plus</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elysian Park and Elysian Valley Recreation Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jurisdiction: Metro; District: Elysian; Council District: 1</td>
</tr>
<tr>
<td>Neighborhood Service Area: East Area</td>
</tr>
<tr>
<td>Public Information: Elysian Park has a Friends of Elysian Park Group. It contains Angels Point, Avenue of the Palms, Bishop Canyon (picnic area/baseball fields), Buena Vista Meadow Picnic Area, Buena Vista Point, Carob Tree Grove Picnic Area, Chavez Ravine Arboretum, Elysian Maintenance Office, Elysian Therapeutic Center, Ficus Tree Grove Picnic Area, Grace E. Simons Lodge, Grace E. Simons Memorial Sculpture, Jones Memorial, Monticello De Leo Politi Picnic Area, Palm Hill, Point Grand View, Police Academy, Portola Trail Historical Monument, Radio Hill, Solano Canyon (picnic area/community garden), Victory Memorial Grove (WWI Memorial). This park is unstaffed, unlocked.</td>
</tr>
<tr>
<td>Special Features: Chavez Ravine Arboretum, hiking trails, horseshoe pits, jogging paths, restrooms</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elysian Park Therapeutic Recreation Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jurisdiction: Griffith/Metro; District: Community Services; Council District: 1</td>
</tr>
<tr>
<td>Neighborhood Service Area: East Los Angeles</td>
</tr>
</tbody>
</table>
Table 3.9-4
Parks within Taylor Yard Opportunity Area

| Public Information: | This facility has an amphitheater with outdoor seating that can accommodate 200 to 300 people. A therapeutic program for children and teens with disabilities is available. This facility is a Los Angeles Police Department stop-in center. |
| Facility Features: | Barbecue pits, unlighted/outdoor basketball courts, children’s play area, indoor gym with weights, picnic tables |
| Special Features: | Amphitheatre, half-court gymnasium, hiking trails, two meeting/classrooms, stage |
| Sports Programs: | Baseball, basketball, body conditioning/weight lifting, bowling, fundamentals (kids with disabilities), soccer |
| Other Programs: | After School Club, body conditioning, Bumper Boiling, concerts (one to two a year), holiday special events, L.A. Kids, overnight camp, pre-school (unlicensed), seasonal day camp, socialization program/after school, teen club, trip clubs |

Glassell Park and Recreation Center

| Jurisdiction: | Region: Griffith/Metro; District: Griffith; Council District: 13 |
| Neighborhood Service Area: | East Los Angeles |
| Public Information: | The indoor gymnasium is also used as an auditorium, the capacity is 500. The community room has a capacity of 50. Children’s play area under construction. Free summer lunch program; summer and off-track service available. This facility is a Los Angeles Police Department stop-in center. |
| Facility Features: | Barbecue pits, lighted baseball diamond, lighted outdoor basketball courts, children’s play area, community room, indoor gym (without weights), picnic tables, outdoor heated seasonal pool, lighted tennis courts |
| Special Features: | Jogging path, kitchen, multipurpose lighted sports field, softball diamond |
| Other Programs: | After school program, arts & crafts, ceramics, cheerleading, child care, cooking, L.A. Kids, pre-school, self defense, Senior Citizens Club, tutoring, Youth Enrichment |

Glenhurst Park

| Jurisdiction: | Region: Metro; District: Elysian; Council District: 13 |
| Neighborhood Service Area: | East Area |
| Public Information: | This is an unstaffed pocket park. Reservations and permits, call Elysian Park Headquarters at (213) 485-5054. |
| Facility Hours of Operation: | Monday - Friday: 5:00 AM to 10:00 PM Saturday: 5:00 AM to 10:00 PM Sunday: 5:00 AM to 10:00 PM |
| Facility Features: | Children’s play area |

Los Angeles Youth Athletic Club

| Jurisdiction: | Region: Griffith/Metro; District: Community Services; Council District: 1 |
| Neighborhood Service Area: | |
| Public Information: | Adults 19 and older are charged $10 per month to use the facility. Children 18 and under can use the facility free of charge. |
| Facility Features: | Indoor gym (with weights) |
| Special Features: | Boxing facility (women/men), karate/kickboxing room, TV area |
| Sports Programs: | Boxing (classes/tournaments) |
| Other Programs: | L.A. Kids |
Thirty-one additional parks are within a two-mile radius of the Taylor Yard Opportunity Area:

- Alpine Park and Recreation Center;
- Carlin G Smith Recreation Center;
- Chevy Chase Park;
- Chevy Chase Recreation Center;
- City Hall Park Center;
- Downey Recreation Center and Playground;
- East Los Angeles Park;
- Elyria Canyon Park;
- Ernest E. Debs Regional Park;
- Greaver Oak Park;
- Griffith Park and Recreation Center;
- Heritage Square;
- Lincoln Heights Recreation Center;
- Lincoln Heights Sr. Citizen Center;
- Lincoln Park;
- Los Feliz Golf Course;
- Lummis Park;
- Montecito Heights Recreation Center;
- Montecito Heights Sr. Citizen Center;
- North Atwater Park;
- Pecan Park and Recreation Center and Playground;
- Prospect Park;
- Ramona Hall Community Center;
- Rose Hill Park and Recreation Center;
- Carlin Smith Playground Park;
- State Street Child Care;
- State Street Recreation Center;
- Sycamore Grove Park;
- Palmer (City of Glendale); and
- Maple (City of Glendale).
3.9 Recreation

3.9.2.5 Chinatown-Cornfields Opportunity Area

One of the parks in Table 3.9-1 is within or immediately adjacent to the Chinatown-Cornfields Opportunity Area. These facilities are described in Table 3.9-5. Additionally, this opportunity area includes the Los Angeles State Historic Park (described above), which is in development.

<table>
<thead>
<tr>
<th>Parks within Chinatown-Cornfields Opportunity Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Downey Recreation Center and Playground</strong></td>
</tr>
<tr>
<td>Jurisdiction: Region: Metro; District: Lincoln; Council District: 1</td>
</tr>
<tr>
<td>Neighborhood Service Area: East Area</td>
</tr>
<tr>
<td>Public Information: The indoor gymnasium has a capacity of 300. Free summer lunch program.</td>
</tr>
<tr>
<td>Facility Features: Auditorium, lighted baseball diamond, children's play area, picnic tables, seasonal pool (outdoor/unheated)</td>
</tr>
<tr>
<td>Special Features: Two classrooms, club room, indoor gymnasium, kitchen, lighted multipurpose sports field, stage</td>
</tr>
<tr>
<td>Sports Programs: Youth baseball, basketball, and soccer, co-ed adult softball, novice swim team, novice synchronized swim team, water polo</td>
</tr>
<tr>
<td>Other Programs: After school program, day camp, L.A. Kids, junior lifeguard training, swim lessons (group, private, semiprivate, parent, child)</td>
</tr>
</tbody>
</table>

Thirty-one additional parks are within a two-mile radius of the Chinatown-Cornfields Opportunity Area:

- 6th and Gladys Park;
- Aliso Pico Recreation Center;
- Alpine Park and Recreation Center;
- City Hall Park Center;
- Cypress Park and Recreation Center;
- Ernest E. Debs Regional Park;
- Park Therapeutic Recreation Center;
- East Los Angeles Park;
- Elyria Canyon Park;
- Elysian Park;
- Elysian Valley Recreation Center;
- Greaver Oak Park;
- Heritage Square;
- Hollenbeck Park and Recreation Center;
- La Youth Athletic Club;
- Lincoln Heights Recreation Center;
- Lincoln Heights Sr. Citizen Center;
- Lincoln Park;
- Lummis Park;
- Montecito Heights Recreation Center;
- Montecito Heights Sr. Citizen Center;
- Pecan Park and Recreation Center and Playground;
- Prospect Park;
- Ramona Hall Community Center;
- Roosevelt Pool;
- Rose Hill Park and Recreation Center;
- Carlin Smith Playground Park;
- State Street Child Care;
- State Street Recreation Center;
- Sycamore Grove Park; and
- Vest Pocket Park.

### 3.9.2.6 Downtown Industrial Opportunity Area

Five of the parks in Table 3.9-1 are within or immediately adjacent to the Downtown Industrial Opportunity Area. These facilities are described in Table 3.9-6.

#### Table 3.9-6

<table>
<thead>
<tr>
<th>Parks within Downtown Industrial Opportunity Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Jurisdiction:</strong></td>
</tr>
<tr>
<td><strong>Neighborhood Service Area:</strong></td>
</tr>
<tr>
<td><strong>Public Information:</strong></td>
</tr>
<tr>
<td><strong>Facility Features:</strong></td>
</tr>
<tr>
<td><strong>Special Features:</strong></td>
</tr>
<tr>
<td><strong>Sports Programs:</strong></td>
</tr>
<tr>
<td><strong>Other Programs:</strong></td>
</tr>
</tbody>
</table>

**Boyle Heights Sports Center Park**

- **Jurisdiction:** Region: Metro; District: Hollenbeck; Council District: 14
- **Neighborhood Service Area:** East Area
- **Public Information:** The community room has a capacity of 50. Free Summer lunch program.
Table 3.9-6
Parks within Downtown Industrial Opportunity Area

| Facility Features: | Barbeque pits, lighted and unlighted baseball diamonds, lighted outdoor basketball courts, children's play area, community room, picnic tables |
| Special Features:  | Asphalt track around field, bike path, community room, jogging path, multipurpose sports field with small lighted baseball diamond |
| Sports Programs:   | Baseball (youth), basketball, flag football, soccer (AYSO) |

**Pecan Park and Recreation Center and Playground**

| Jurisdiction:      | Region: Metro; District: Hollenbeck; Council District: 14 |
| Neighborhood Service Area: | East Area |
| Public Information: | All sport programs are co-ed. The community room is only used for the after school programs. Free summer lunch program. |
| Facility Features: | Lighted outdoor basketball courts, children's play area, community room, lighted handball and volleyball courts, picnic tables |
| Special Features: | Multipurpose sports field with ball diamond |
| Sports Programs:  | Baseball, floor hockey, golf, soccer, softball, t-ball, volleyball |
| Other Programs:   | After school club, arts and crafts, summer day camp, teen club |

**Roosevelt Pool**

| Jurisdiction:      | Region: Griffith/Metro; District: Community Services; Council District: 14 |
| Neighborhood Service Area: | East Los Angeles |
| Public Information: | For fees, features and programs go to City-Wide AQUATICS |
| Facility Features: | Year-round outdoor heated pool |
| Sports Programs:   | Novice Swim Team, Novice Synchronized Swim, US Water Polo, US Swim team |
| Other Programs:    | Community water safety, community first aid and safety, lifeguard training program, lifeguard instructor course, group, private, semiprivate, and adaptive swim lessons, Masters Fitness Program, water exercise, adult lap swimming |

Twenty additional parks are within a two-mile radius of the Downtown Industrial Opportunity Area:

- 6th and Gladys Park;
- Alpine Park and Recreation Center;
- City Hall Park Center;
- Costello Child Care;
- Costello Recreation Center;
- Costello Sr. Citizen Center;
- Downey Recreation Center and Playground;
- East Los Angeles Park;
- Elysian Park;
- Elysian Park Therapeutic Recreation Center;
- Hollenbeck Park and Recreation Center;
- Hostetter Playground;
• Los Angeles Youth Athletic Club;
• Lincoln Heights Recreation Center;
• Lincoln Heights Sr. Citizen Center;
• Lincoln Park;
• Prospect Park;
• Ramon Garcia Recreation Center;
• State Street Child Care
• State Street Recreation Center; and
• Vest Pocket Park.
3.10 Noise

This section is a discussion of noise terminology, relevant federal, state, and local guidelines concerning acceptable noise levels, important aspects of local noise ordinances, and existing sensitive receptors along the River Corridor and the opportunity areas.

3.10.1 Noise Terminology and Regulations

3.10.1.1 Noise Terminology

Sound is caused by vibrations that generate waves of minute air pressure fluctuations. Air pressure fluctuations that occur from 20 to 20,000 times per second can be detected as audible sound. The number of pressure fluctuations per second is normally reported as cycles per second or Hertz (Hz). Different vibration frequencies produce different tonal qualities for the resulting sound.

Noise is measured in decibels (dB). A frequency-dependent adjustment is applied because the human ear is not equally sensitive to sound at all frequencies; this is called A-weighting to achieve the A-weighted dB (dBA). Unless otherwise noted all references to noise levels in this section are A-weighted. Average noise exposure over 24 hours can be presented as a day-night average sound level (DNL). DNL values are calculated from 24-hour averages in which nighttime values (10 PM to 7 AM) are increased by 10 dB to account for the greater disturbance potential from nighttime noises.

Because noise levels decrease as the distance from the source increases, the area affected by noise issues is generally more limited than for other resources. Localized affected areas are generally within half a mile of the noise source.

When distance is the only factor considered, sound levels from an isolated noise source will typically decrease by about 6 dB for every doubling of distance away from the noise source. When the noise source is essentially continuous (for example, vehicle traffic on a highway), noise levels decrease by about 3 dB for every doubling of distance.

3.10.1.2 Relevant Noise Regulations

Federal

Several laws require the federal government to set and enforce uniform noise control standards. Among these laws is the Noise Control Act of 1972 (Public Law 92-574). The USEPA, the federal agency charged with enforcing the Noise Control Act, recommends the use of the day-night sound level for environmental noise to quantify the intrusiveness of nighttime noise. The day-night sound level is the A-weighted equivalent sound level for a 24-hour period, with an additional 10-dB weighting imposed on the equivalent sound level occurring during the nighttime hours (10 PM to 7 AM). These sound levels represent an annual average exposure, where on any given day the level may be higher or lower.

State

The California Governor’s Office of Planning and Research in 1998 published guidelines for the noise element of local general plans. These guidelines categorize various outdoor L_{dn} ranges into as many as four compatibility categories (normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable), depending on land use.
3.10 Noise

The state noise element guidelines identify normally acceptable noise levels for low density residential uses as $L_{dn}$ values below 60 dB. The normally acceptable range for high density residential uses is identified as $L_{dn}$ values below 65 dB. For educational and medical facilities, $L_{dn}$ values of 60 to 70 dB are identified as conditionally acceptable. For office and commercial land uses, $L_{dn}$ values of 67.5 to 77.5 are categorized as conditionally acceptable.

**Local**

**Los Angeles County General Plan**

The goals of Los Angeles County are as follows:

- To reduce the levels of transportation noise so that it will not jeopardize health and welfare;
- To minimize noise levels of future transportation facilities;
- To establish compatible land use adjacent to transportation facilities;
- To alert the public regarding the potential impact of transportation noise; and
- To allocate noise mitigation costs among those who produce the noise (Los Angeles County 1993).

**City of Los Angeles Noise Element**

The Noise Element defines noise-sensitive uses as single-family and multifamily dwellings, long-term care facilities, dormitories, motels, hotels, transient lodging, and other residential uses. Additionally, such public uses as hospitals, libraries, schools, auditoriums, concert halls, outdoor theaters, nature and wildlife preserves, and parks are also defined as noise-sensitive uses. The Noise Element includes three objectives:

- Reduce airport and harbor-related noise impacts;
- Reduce or eliminate non-airport-related intrusive noise, especially relative to noise sensitive uses; and
- Reduce or eliminate noise impact associated with proposed development of land and changes in land use (City of Los Angeles 1999).

**City of Los Angeles Noise Ordinance**

In addition to the general land use compatibility guidelines in the county general plan, the City of Los Angeles has adopted a noise ordinance. Chapter IV, Article 1, Section 41.40 of the noise ordinance indicates that no construction or repair work shall be performed between the hours of 9:00 PM and 7:00 AM of the following day. Additionally, construction is prohibited before 8:00 AM or after 6:00 PM on any Saturday or national holiday, or at any time on Sunday, within 500 feet of a residential area. The ordinance sets a 50-dBA daytime standard for ambient noise in a residential area and notes that a significant increase would be 5 dBA over the ambient level (City of Los Angeles 1984).

The ordinance sets the maximum level of noise for construction equipment within a residential area at 75 dB. The ordinance also forbids loading and unloading vehicles between 10:00 PM and 7:00 AM within 200 feet of any residential building (City of Los Angeles 1991).
3.10 Noise

3.10.2 Affected Environment

3.10.2.1 River Corridor
There are residential areas, open park spaces, hospitals, schools and libraries along the River Corridor. Residential areas are mostly concentrated at the first and last four-mile segments of the River Corridor. Several open spaces are along the river, mainly at the intersections of Interstate 405 and US Highway 101, and Interstate 5 and State Route 134. Hospitals, schools, and libraries are mostly located near the residential areas along the River Corridor.

Existing noise sources are mainly highways that pass through the River Corridor, namely the Golden State and Santa Ana (I-5), San Diego (I-405), Harbor (I-110), and Santa Monica (I-10) Freeways, US Highway 101, and State Routes 2, 27, 60, 134, and 170. Additionally, rail services run along the corridor and cross the river at several locations, especially in downtown Los Angeles.

3.10.2.2 Opportunity Areas

Canoga Park Opportunity Area
Canoga Park Opportunity Area is mostly surrounded by affordable housing areas and overcrowded residential areas. Hospitals are located at approximately one mile to the south, west, and north. Two schools and a library are within the opportunity area, and several other schools are within half a mile of the site.

River Glen Opportunity Area
Sensitive receptors at River Glen Opportunity Area are mostly residential areas that include low, medium, and high density housing and park and recreation areas.

Taylor Yard Opportunity Area
Although the Taylor Yard Opportunity Area is mainly industrial, it has low density and medium density housing, schools, and hospitals.

Chinatown-Cornfields Opportunity Area
Approximately nine percent of the Chinatown-Cornfields Opportunity Area is medium density housing. Several schools and hospitals are also located here.

Downtown Industrial Opportunity Area
The Downtown Industrial Opportunity Area includes areas under the Housing and Urban Development Empowerment Zones, a hospital, and several schools.
3.11 Public Health and Safety

This section is a discussion of conditions in the study area for public health and safety. In this PEIR/PEIS, the study area for this resource includes the half-mile River Corridor and the five opportunity areas, as previously described. However, in some instances a larger study area (up to one mile) is considered, such as for the area covered by the database search for potential past and present contamination sources regarding hazardous, toxic, and radioactive wastes (HTRW).

3.11.1 General Resource Description

For this PEIR/PEIS, the public health and safety topics of concern with respect to the implementation of the LARRMP include the following:

- Air quality;
- HTRW;
- Los Angeles River water safety;
- School safety;
- Airport operations safety;
- Wildfire; and
- Methane zones.

Existing conditions and potential environmental impacts regarding air quality are discussed in Sections 3.3 and 4.3 of this PEIR/PEIS, respectively. Existing conditions in the study area regarding the other six topics listed above are discussed below, under Affected Environment. A discussion of potential impacts associated with these six topics is presented later, in Section 4.11.

3.11.2 Affected Environment

3.11.2.1 HTRW

For this PEIR/PEIS, Environmental Data Resources, Inc. (EDR) searched federal, state, and local records, tribal records, and proprietary records for HTRW occurrences in the study area (EDR 2006). A copy of the EDR report is on electronic file at the City of Los Angeles Bureau of Engineering. The record search boundary included one mile on each side of the Los Angeles River and one mile from the boundaries of the five opportunity areas. The database search yielded a list of approximately 1,550 incidents/sites within the database categories searched. This extensive overall list was screened to identify the occurrences/sites that may have the greatest potential to affect implementation of LARRMP measures. These are considered in this PEIR/PEIS to be HTRW sites of interest. Table 3.11-1 below presents a summary of the numbers of these sites of interest, by database categories, found within the study area.
Table 3.11-1
Summary of Number of HTRW Sites of Interest—by Database Category—Within the Study Area

<table>
<thead>
<tr>
<th>Database Category</th>
<th>Description</th>
<th>Number of Sites*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Federal Records</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Priority List (NPL; also known as Superfund)</td>
<td>This is a list of national priorities of the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The USEPA maintains this list.</td>
<td>3</td>
</tr>
<tr>
<td>Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)</td>
<td>This system maintains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies, and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites that are either proposed to be or are on the NPL and sites that are in the screening and assessment phase for possible inclusion on the NPL. The USEPA maintains this list.</td>
<td>27</td>
</tr>
<tr>
<td>Resource Conservation and Recovery Act Treatment, Storage, or Disposal Facility</td>
<td>This is a list of facilities that treat, store, or dispose of hazardous waste. The USEPA maintains this list.</td>
<td>20</td>
</tr>
<tr>
<td>Formerly Used Defense Sites (FUDS)</td>
<td>This database tracks past and present remediation actions at FUDS properties where the Corps has identified the need for cleanup actions. The Corps maintains this list.</td>
<td>4</td>
</tr>
<tr>
<td>US Brownfields</td>
<td>This includes USEPA's listings of brownfields properties reported as Cooperative Agreement Recipients and as Targeted Brownfields Assessments. The USEPA maintains this list.</td>
<td>6</td>
</tr>
<tr>
<td>Toxic Chemical Release Inventory System</td>
<td>This database, maintained by USEPA, identifies facilities that release toxic chemicals to the air, water, and land in reportable quantities under SARA Title III, Section 313.</td>
<td>38</td>
</tr>
<tr>
<td>Mines Master Index File</td>
<td>This is a database of mines, maintained by the Department of Labor, Mine Safety and Health Administration.</td>
<td>1</td>
</tr>
<tr>
<td>RCRA Administration Action Tracking System</td>
<td>This USEPA tracking system contains records of enforcement actions issued under RCRA pertaining to major violators. It includes administrative and civil actions brought by USEPA.</td>
<td>7</td>
</tr>
<tr>
<td><strong>State and Local Records</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Work Plan</td>
<td>The California Department of Toxic Substances Control (DTSC) maintains this list of known hazardous substance sites targeted for cleanup.</td>
<td>29</td>
</tr>
<tr>
<td>Toxic Pits Cleanup Act</td>
<td>This database, maintained by DTSC, included sites suspected of containing hazardous substances where cleanup has not yet been completed.</td>
<td>2</td>
</tr>
<tr>
<td>California DTSC Hazardous Waste and Substances Sites List.</td>
<td>This DTSC database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the Abandoned Site Assessment Program, sites with underground storage tanks having a reportable release, and all solid waste disposal facilities from which there is</td>
<td>597</td>
</tr>
</tbody>
</table>
### Table 3.11-1
Summary of Number of HTRW Sites of Interest—by Database Category—Within the Study Area

<table>
<thead>
<tr>
<th>Database Category</th>
<th>Description</th>
<th>Number of Sites*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaking Underground Storage Tank</td>
<td>The DTSC and California Water Quality Control Board maintain files on LUST incident reports.</td>
<td>673</td>
</tr>
<tr>
<td>Information System (LUST)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land Use Restricted Sites</td>
<td>A land use restricted site is a property where DTSC has placed limits or requirements on future use of the property due to varying levels of cleanup possible, practical, or necessary at the site.</td>
<td>12</td>
</tr>
<tr>
<td>EnviroStor</td>
<td>The DTSC’s Site Mitigation and Brownfields Reuse Program’s EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites; state response, including military facilities and state Superfund; voluntary cleanup; and school sites. EnviroStor provides similar information to the information that was available in CalSites and provides additional site information, including identification of formerly contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts on public health and the environment at contaminated sites.</td>
<td>133</td>
</tr>
</tbody>
</table>

Some sites may be listed in more than one database category.

Source: EDR 2006

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### 3.11.2.2 Los Angeles River Water Safety

For most of the study area, the proximity of the Los Angeles River to substantial population densities and the ready access to the river make the risk of drowning and other river-related accidents a potential health and safety concern. Most of the river right-of-way in the study area has been reconstructed in past decades to provide a hard-surfaced channel to contain and manage the intermittent flood waters that can accompany storms. During dry periods the channel typically contains low volumes and heights of water. However, during periodic storms, the channel rapidly fills with stormwater runoff, conveying large volumes of fast-moving runoff water to the Pacific Ocean. During and following these storms, when water levels and flow velocities in the river channel rise quickly, the risk of accidental death and injuries to individuals venturing close to the river at these times increases dramatically.

The County of Los Angeles Fire Department has formed special Swiftwater Rescue teams, and the City of Los Angeles Fire Department has a Swift Water Rescue team, that respond to emergencies along the Los Angeles River and other rivers, creeks, and arroyos during and following storms. These teams are strategically collocated in selected fire stations throughout Los Angeles County to be able to rapidly respond to such emergencies. These rescue teams are staffed by specially trained and equipped firefighters and lifeguards, who augment the Fire Department’s basic Urban Search and Rescue and Lifeguard staff. Depending on the particular circumstances and location of emergencies, Swiftwater Rescue personnel have access to the Fire Department’s helicopters and ground vehicles to provide rescue services to the Antelope Valley, Santa Clarita,
San Gabriel Valley, Malibu, and all stretches of the Los Angeles River system within the Fire Department's jurisdiction (Los Angeles County Fire Department 2006).

### 3.11.2.3 School Safety
The safety of students and staff, the risk of river-related accidents and injuries, and exposure to water-borne pollutants and hazardous substances are considerations in this PEIR/PEIS for those schools in or near the River Corridor. Another consideration is those school-related activities that may periodically bring students and staff close to the river.

As was shown in Figure 3.14-2 in Section 3.14, Socioeconomics, nearly 100 schools are within one mile of the Los Angeles River along the 32-mile study area, with most clustered toward each end. Of these schools, approximately 42 are within the River Corridor (half a mile each side of river). As Table 3.11-2 below shows, 14 of the schools are within the five opportunity areas, and an additional 31 schools are within half a mile of these opportunity areas.

<table>
<thead>
<tr>
<th>Opportunity Area</th>
<th>Number of Schools within the Opportunity Area</th>
<th>Number of Schools within Half a Mile of the Opportunity Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canoga Park</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>River Glen</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Taylor Yard</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Chinatown-Cornfields</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Downtown Industrial</td>
<td>4</td>
<td>9</td>
</tr>
</tbody>
</table>

### 3.11.2.4 Airport Operations Safety
Consideration of airport operations safety is included in this PEIR/PEIS because the Van Nuys Airport is just north of the Los Angeles River, with the southern portion of the airport within one mile of the river. Van Nuys Airport averages nearly one-half million takeoffs and landings annually, with 454,753 total operations in 2004. Also, more than 100 businesses are located on the 730-acre airport (Los Angeles World Airports 2006).

### 3.11.2.5 Wildfire
There are some areas along the Los Angeles River Corridor that may involve interface between urban and more natural (vegetated) areas, creating zones where wildfire fuels can accumulate. Fire hazard zones are established by City Council ordinance. Such zones are prone to incidence of wildfires, which may be caused either by natural forces, such as lightning, or by human negligence or mischief.

As shown in Figure 3.11-1, the most prevalent areas for these zones to occur are where the Santa Monica Mountains and foothills interface with the city of Los Angeles. These areas include Griffith Park and the Santa Monica Mountains National Recreation Area to the west in Los Angeles County and to the east of the Oxnard Plain in Ventura County. Also, as shown in Figure 3.11-1, high fire-hazard zones occur within the River Glen Opportunity Area west side of I-5, along the western and eastern edges of the Taylor Yard Opportunity Area, and along the northern edge of the Chinatown-Cornfields Opportunity Area.
FIGURE 3.11-1
HIGH FIRE HAZARD ZONE
Los Angeles River Revitalization
Master Plan PEIR/PEIS

LEGEND
- High Fire Hazard Zone
- Opportunity Areas
- Los Angeles River Corridor
- Los Angeles River and Tributaries
- Major Roads (within 2 miles)
- Freeways

City of Los Angeles
Los Angeles County
3.11.2.6 Methane Zones
The PEIR/PEIS study area includes locations having a potential methane hazard due to their proximity to methane gas sources, such as landfills, oil wells, oil fields, and underground gas storage facilities. Methane zones are established by City Council ordinance. Methane zones are surrounded by a methane buffer zone. Both have established land use restrictions and mitigation policies to manage land use. Figure 3.11-2 depicts the locations of methane zones and methane buffer zones in the study area. As shown in the figure, these zones occur in various locations along the River Corridor and within each of the five opportunity areas.

3.11.2.7 Vector-Borne Diseases
Vector-borne diseases are diseases that can be transmitted to, for example, humans from contact with a vector. A vector is any agent, such as a mosquito, that carries and transmits a disease, such as the West Nile virus.

The mission of the Greater Los Angeles County Vector Control District (GLACVCD) is to reduce populations of public health vectors below nuisance levels, prevent human infection associated with mosquito-transmitted diseases, and prevent the loss of property values and commercial enterprise as the result of vector occurrence and activity (GLACVCD 2007a). The GLACVCD is a non-enterprise independent special district, enabled and empowered to act as a public health agency as a result of legislation incorporated in the California State Health and Safety Code. The GLACVCD is one of five mosquito and vector control districts in Los Angeles County and services 4.8 million residents in a 1,330 square mile area.

The objective of the GLACVCD is to prevent and control vectors and vector-borne diseases from emerging (GLACVCD 2007a). The District prevents and controls three vectors: mosquitoes, black flies, and midges (GLACVCD 2007b). It is important to control mosquitoes to reduce their potential as a nuisance and carrier (vector) of diseases. Diseases, which are of concern in Southern California, are St. Louis encephalitis, Western Equine encephalomyelitis, West Nile virus, malaria, and heartworm to dogs and cats.

The County of Los Angeles Department of Public Health has a vector management program (County of Los Angeles 2007). This program consists of three units: vector-borne disease surveillance, entomology and vector control. The historic objectives of the vector-borne disease surveillance unit have always been the reduction of the risks of exposure to the pathogens of vector-borne disease through early detection and abatement of those factors which enhance the transmission of disease to humans. The entomology unit performs taxonomic duties and defines the biology, life history, and the complex transmission cycles which permit the transference of diseases to the human population. Vector control is responsible for rodent abatement activities and licensed animal keeper premises inspection and enforcement throughout Los Angeles County (except for the Mountain & Rural Program and District Environmental Services-Antelope Valley Districts).
FIGURE 3.11-2
METHANE ZONES AND BUFFER ZONES
Los Angeles River Revitalization Master Plan PEIR/PEIS

LEGEND
- Methane Zone
- Methane Buffer Zone
- Opportunity Areas
- Los Angeles River Corridor
- Los Angeles River and Tributaries
- Major Roads (within 2 miles)
- Freeways
3.12 TRANSPORTATION

This section is a discussion of the transportation facilities and conditions in the project vicinity. Aspects of transportation considered in this PEIR/PEIS include the range of infrastructure, vehicles, and facilities built for the movement of motorized and nonmotorized vehicles.

3.12.1 Affected Environment

The affected environment with regard to transportation includes the complete network of transportation facilities servicing the project area. Existing conditions that provide a baseline for evaluating project components and alternatives addressed in this PEIR/PEIS include the physical characteristics of the surrounding streets system, operating conditions, and public transit service.

3.12.1.1 General Resource Description

Transportation within Los Angeles and in the project vicinity is on a complex system of roads, highways, public transit, freight railroads, airports, seaport, and intermodal terminals. Local streets, arterial streets, freeways, and carpool lanes allow access to private autos, carpool vehicles, private and public buses, and trucks. The freeway and highway system is the primary means of regional transportation for people and goods, allowing direct access to places of employment, and commerce.

The City of Los Angeles General Plan Framework is a strategy for long-term growth, which sets a citywide context to guide the update of the community plan and citywide elements. The framework element transportation system includes proposals to improve the movement of goods and to provide greater access to major intermodal facilities, such as the ports and airports. There are 35 separate community planning areas, each of which sets its own goals, objectives, policies, and programs for the community. Several community planning areas fall within the opportunity areas and are discussed below.

Roadways

The freeways and state highways passing through or near the project area are listed in Table 3.12-1.

<table>
<thead>
<tr>
<th>State Routes, Interstates, and US Highways</th>
<th>Freeway or Arterial</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Glendale Boulevard, Glendale Freeway</td>
</tr>
<tr>
<td>5</td>
<td>Santa Ana Freeway, Golden State Freeway</td>
</tr>
<tr>
<td>10</td>
<td>Santa Monica Freeway, San Bernardino Freeway</td>
</tr>
<tr>
<td>27</td>
<td>Topanga Canyon Road</td>
</tr>
<tr>
<td>60</td>
<td>Pomona Freeway</td>
</tr>
<tr>
<td>101</td>
<td>Hollywood Freeway, Ventura Freeway</td>
</tr>
<tr>
<td>110</td>
<td>Pasadena Freeway, Harbor Freeway</td>
</tr>
<tr>
<td>134</td>
<td>Ventura Freeway</td>
</tr>
<tr>
<td>170</td>
<td>Highland Avenue, Hollywood Freeway</td>
</tr>
<tr>
<td>405</td>
<td>San Diego Freeway</td>
</tr>
</tbody>
</table>

Peak periods generally extend from 6:00 AM to 9:00 AM, and from 3:00 PM to 6:00 PM on weekdays. The remaining hours are considered “off peak” periods. The single hour of most intense traffic circulation is
between 5:00 PM and 6:00 PM on weekdays. Many freeways experience heavy congestion in both directions during peak periods. These include the Santa Monica Freeway (Route 10) between the East Los Angeles Interchange and the San Diego Freeway (Route I-405), the Ventura/Hollywood Freeway (US Highway 101) between the San Fernando Valley and downtown Los Angeles; and portions of the Harbor Freeway (Route 110) south of and through downtown Los Angeles. The Santa Monica Freeway in particular approaches extremely congested conditions (150 percent of capacity) during rush hours. Half of the freeway system operates at Level of Service (LOS) E and F during morning and afternoon rush hours; LOS is a qualitative indication of the level of delay and congestion experienced by motorists using an intersection or roadway (see definitions of roadway LOS in Table 3.12-2). Forty percent of arterial intersections operate at LOS E and F in morning rush hours, and half operate at LOS E and F in the afternoon rush hours.

### Table 3.12-2
Roadway Segment Level of Service Definitions

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Definition [A]</th>
<th>Description [B]</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>V/C ≤ 0.6</td>
<td>Describes primarily free-flow operations at average travel speeds, usually about 90 percent of the free-flow speed for the arterial class. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delay at signalized intersections is minimal.</td>
</tr>
<tr>
<td>B</td>
<td>0.6 &lt; V/C ≤ 0.7</td>
<td>Represents reasonably unimpeded operations at average travel speeds, usually about 70 percent of the free-flow speed for the arterial class. The ability to maneuver within the traffic stream is only slightly restricted, and stopped delays are not bothersome.</td>
</tr>
<tr>
<td>C</td>
<td>0.7 &lt; V/C ≤ 0.8</td>
<td>Represents stable operations. However, ability to maneuver and change lanes in midblock locations could be more restricted than in LOS B, and longer queues and/or adverse signal coordination could contribute to lower average travel speeds of about 50 percent of the average free-flow speed for the arterial class.</td>
</tr>
<tr>
<td>D</td>
<td>0.8 &lt; V/C ≤ 0.9</td>
<td>Borders on a range on which small increases in flow may cause substantial increases in approach delay and, hence, decreases in arterial speed. This could be a result of adverse signal progression, inappropriate signal timing, high volumes, or some combination of these. Average travel speeds are about 40 percent of free-flow speed.</td>
</tr>
<tr>
<td>E</td>
<td>0.9 &lt; V/C ≤ 1.0</td>
<td>Is characterized by significant approach delays and average travel speeds of one-third the free-flow speed or lower. Such operations are caused by some combination of adverse progression, high signal density, extensive queueing at critical intersections, and inappropriate signal timing.</td>
</tr>
<tr>
<td>F</td>
<td>V/C &gt; 1.0</td>
<td>Characterizes arterial flow at extremely low speeds below one-third to one-quarter of the free-flow speed. Intersection congestion is likely at critical signalized locations, with high approach delays resulting. Adverse progression is frequently a contributor to this condition.</td>
</tr>
</tbody>
</table>

Source: Transportation Research Board 1985

By 2010, a 38 percent increase in vehicle travel is projected. Due to right-of-way and construction costs, land constraints, and environmental impact concerns, focus has shifted from constructing additional freeways to making more efficient use of the existing system. This can be done by adding carpool lanes, also known as high occupancy vehicle (HOV) lanes. Local agencies are improving traffic flow by synchronizing traffic signals and adding new major roads.

**Public Transit**

The regional public transit system includes local shuttles, municipal and public bus service, rapid rail transit service, regional commuter rail service, and inter-regional passenger rail service. Transit usage in the city is almost three times higher than the rest of Los Angeles County. Transit authorities in the region include Los
Angeles County Metropolitan Transit Authority (Metro), which is the largest provider of mass transit in the project area, and Los Angeles Department of Transportation (LADOT).

Metro is the regional transportation planner for all of Los Angeles County. Metro develops and oversees transportation plans, policies, funding programs, and short-term and long-term solutions that address the county’s increasing mobility, accessibility, and environmental needs. Metro operates 200 bus lines and 4 electric-powered or light rail lines, the Red, Blue, Green, and Gold Lines. Metro operates 62 stations and over 73 miles of track. During the heavy peak travel times, there are as many as 250 trains operating throughout the system.

LADOT’s transit services include DASH, Commuter Express, and CityRide. Their fleet consists of nearly 400 vehicles which accommodate approximately 30 million passenger boardings per year. DASH provides bus service seven days a week, while Commuter Express generally operates Monday through Friday during peak commute hours. CityRide accommodates citizens 65 years of age or older or those who have mobility impairments.

**Railroads**

Union Pacific serves the Los Angeles metropolitan area with its two major ports at Los Angeles and Long Beach. The I-5 corridor offers north-south transportation service to freight customers, with a main east-west corridor in Los Angeles. Union Pacific trains carry extensive varieties of import-export traffic through its Intermodal Container Transfer Facility near the Los Angeles-Long Beach Harbors. The railroad also moves chemicals and manufactured goods, fruits, vegetables, and canned goods. Daily Amtrak passenger service and other commuter trains also use Union Pacific lines. In 2006 Union Pacific operated 110 trains per day in its "LA Service Unit", which includes the following routes: Los Angeles - Arizona; Los Angeles - Nevada; and Los Angeles - Northern California.

The Burlington Northern-Santa Fe Railway (BNSF) operates rail lines in Los Angeles to transport intermodal containers, trailers, and other freight. On February 9, 2005, BNSF announced plans to build a new intermodal transfer facility near the Port of Los Angeles. The new facility, with direct rail access to the recently constructed Alameda Corridor, would supplement the container transloading abilities of the Intermodal Container Transfer Facility built by Southern Pacific in the 1990s. The BNSF main line from Los Angeles to Chicago is a triple track and runs 100 trains per day.

Metrolink (Southern California Regional Rail Authority) is a premier regional rail system including commuter and other passenger services. Metrolink connects communities to employment and activity centers and covers the area from Oxnard to Lancaster, San Bernardino, and Oceanside. Metrolink operates 54 stations and 141 weekday trains and serves over 41,000 riders per day on weekdays.

Amtrak operates the following long-distance trains, which pass through Los Angeles Union Station: the Coast Starlight (daily Los Angeles to Oakland to Seattle), Southwest Chief (daily Los Angeles to Albuquerque to Chicago), and Sunset Limited (three times a week Los Angeles to New Orleans to Orlando). Amtrak also partners with the State of California to operate the Pacific Surfliner, which runs from San Diego to Los Angeles to Santa Barbara to San Luis Obispo with several daily round trips. In fiscal year 2006, Amtrak served 1,414,164 passengers in Los Angeles.
3.12 Transportation

The proposed California High-Speed Rail System stretches from San Francisco, Oakland, and Sacramento in the north to Los Angeles and San Diego in the south and will connect California’s major metropolitan areas. The proposed corridor alignment has been identified in the Los Angeles area, and it traverses several of the Los Angeles River opportunity areas. With the certification of the Statewide Final Program-Level Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) in November 2005, the Authority is poised to begin the implementation phase of the project. It will take from eight to 11 years to develop and begin operating on an initial segment. The system is forecast to carry up to 42 to 68 million passengers per year by 2020.

Union Station is the major regional hub for Metrolink, Amtrak, Metro rail lines, and the proposed high-speed rail service. The station currently has 10 train tracks, and approximately 80 train departures on weekdays (not counting the Gold and Red Lines). The attached Patsaouras Transit Plaza serves several bus lines, including Rapid and regular Metro lines, as well as downtown DASH shuttles.

Nonmotorized Transportation

Nonmotorized transportation includes walking, facilitated by sidewalks and crosswalks, and biking, facilitated by a system of bikeways. A discussion of bikeways as they relate to recreation is in Section 3.9, Recreation.

3.12.1.2 River Corridor

Roadways

A number of major arterials pass through the Los Angeles River Corridor, including the Golden State and Santa Ana (I-5), San Diego (I-405), Harbor (I-110), and Santa Monica (I-10) freeways, US 101, and State Routes 2, 27, 60, 134, and 170.

Public Transit

The public transit system in the River Corridor includes local shuttles, municipal and public bus operations, rapid rail transit operations, regional commuter rail services, and interregional passenger rail service. Metro and LADOT provide mass transit. Union Pacific, BNSF, Metrolink, Amtrak, and the Metro all operate rail lines within the River Corridor. Metrolink, Amtrak and the Metro are commuter rails, while Union Pacific and BNSF transport goods. See Figure 3.12-1 for railways and bus routes.

Airports

The Bob Hope and Van Nuys Airports are located just outside the River Corridor. Bob Hope Airport in Burbank has two runways and two terminals. The airport is owned by the Burbank-Glendale-Pasadena Airport Authority, which is controlled by the governments of the three cities. The name was officially changed from the Burbank-Glendale-Pasadena Airport to Bob Hope Airport in December 2003. The Bob Hope Airport Train Station, just south of the airport, is served by Amtrak and Metrolink. The airport services 4.9 million travelers per year on seven major carriers, with more than 70 flights daily. Van Nuys Airport is ranked as the world’s busiest general aviation airport. It averages nearly one-half million takeoffs and landings annually. More than 100 businesses are located on the 730-acre airport, including six major fixed-base operators and numerous aviation service companies. No commercial airlines fly into this airport; it is used by private, chartered, and small commercial aircraft. It is owned and operated by Los Angeles World Airports.
3.12 Transportation

3.12.1.3 Canoga Park Opportunity Area

Roadways
Regional access to this area is provided by US 101 and State Highway 27 (Topanga Canyon Road). Arterial roadways in the vicinity, including Victory Boulevard, also would be expected to carry project-related traffic. US 101 experiences LOS F in both directions in both the AM and PM peak periods.

Public Transit
Metro bus lines operate within the opportunity area, which is also serviced by LADOT’s Commuter Express and DASH. The Metro Red Line subway provides service to North Hollywood, where it meets the Metro Orange Line. The new 14-mile Metro Orange Line starts in North Hollywood at Lankershim Boulevard and runs across the valley to Warner Center in Woodland Hills. See Figure 3.12-2 for railways and bus routes.

Railroads
Union Pacific rail lines run along Canoga Avenue north of Victory Boulevard and turn east at Victory Boulevard.

Parking
The main areas of activity in the project vicinity are Canoga Park High School and Westfield Shopping Center. Pierce College is located just outside the opportunity area. Its parking lots are not free and require permits, and students and faculty also park on nearby city streets. No parking fees are charged during the summer. Near the plaza, there have been increasing concerns with speeding problems along Topanga Canyon Boulevard. A special parking subcommittee has met to discuss the possibility of adding signs to remind drivers to slow down. Street parking limitations have been implemented along Sherman Way during peak hours, as specified in the community plans.

Community Plans
Transportation issues listed in the Canoga Park-Winnetka-Woodland Hills-West Hills Community Plan include generalized congestion in much of the area. Also, traffic speed and volume compromise safety and quality of many residential neighborhoods and some commercial areas.

3.12.1.4 River Glen Opportunity Area

Roadways
Regional access to this area is provided by SR-134 and the I-5 freeway. In the AM peak period in the eastbound direction, SR-134 experiences LOS F as it approaches the I-5 interchange and LOS D after the interchange. Traffic in the westbound direction experiences LOS F before and after the interchange. In the PM peak period in both directions, SR-134 experiences LOS D before the I-5 interchange and LOS F past the interchange. In the AM peak period, I-5 experiences LOS D in the northbound direction and LOS F in the southbound direction. In the PM peak period, I-5 experiences LOS E and F in the northbound direction, and LOS D in the southbound direction.

Public Transit
Metro bus lines and LADOT’s Commuter Express and DASH serve the opportunity area. See Figure 3.12-3 for railways and bus routes.
FIGURE 3.12-2
BUS and RAIL ROUTES
CANOGA PARK
OPPORTUNITY AREA
Los Angeles River Revitalization
Master Plan PEIR/PEIS

LEGEND
MTA (BUS) LINES
ORANGE LINE
Opportunity Area
Los Angeles River Corridor
Los Angeles River and Tributaries

Los Angeles County
City of Los Angeles

Vanowen Street
Sherman Way
De Soto Street
Topanga Canyon Road
Owensmouth Ave
Victory Boulevard

Miles
0 0.125 0.25 0.5

Figure 3.12-2
Railroads
Metrolink, Amtrak, and Union Pacific operate rail lines along San Fernando Road. The proposed High Speed Rail also crosses the site.

Parking
Main attractions are the Glendale Galleria shopping center and the Los Angeles Zoo. The Glendale Galleria has a parking structure with almost 3,000-car capacity and free parking, but parking still presents a problem at the shopping mall. The Los Angeles Zoo, which is just outside the opportunity area, is owned and operated by the City of Los Angeles. There are no major parking concerns with the zoo, which has 34 acres of free parking and tram service.

3.12.1.5 Taylor Yard Opportunity Area

Roadways
Regional access to this area is provided by SR-2, I-5, and SR-110. In the AM peak period, SR-2 experiences LOS D in the northbound direction and LOS F in the southbound direction. In the PM peak period, SR-2 experiences LOS D or better in both directions. In the AM peak period, I-5 experiences LOS D or better in the northbound direction and LOS F in the southbound direction. In the PM peak period, I-5 experiences LOS F in the northbound direction and LOS D or better in the southbound direction. In the AM peak period, SR-110 experiences LOS D or better in the northbound direction and LOS F in the southbound direction. In the PM peak period, SR-110 experiences LOS F in the northbound direction, and in the southbound direction LOS D or better before the I-5 interchange, and LOS after the interchange.

Commuter traffic coming off and onto SR-2 via Glendale Boulevard and Alvarado Street has contributed to congestion. Major boulevards and residential streets are used as thoroughfares by commuters to avoid freeway traffic. Residential streets also face truck traffic, particularly in Elysian Valley, and hillside streets are narrow and substandard.

Public Transit
Metro Bus lines and LADOT’s Commuter Express and DASH serve the area, but mass transportation and multimodal transit options are limited, according to the Silver Lake-Echo Park-Elysian Valley Community Plan. See Figure 3.12-4 for railways and bus routes.

Railroads
Metrolink, Amtrak, and Union Pacific rail lines run between San Fernando Road and the Los Angeles River, then follow the river after crossing the I-5 freeway. The Metro Gold Line starts out on an elevated rail line running between Union Station and Chinatown, and subsequently traverses the Los Angeles River (just north of Broadway) and the adjacent Golden State Freeway, before serving the hillside communities just north of downtown. Taylor Yard, owned by Union Pacific, is currently being used by Metrolink as a holding area for commuter trains. The 200-acre historic site is just north of downtown.

Parking
Dodger Stadium, which is in the project vicinity, faces unique parking challenges because on every opening day, the large number of fans creates long traffic gridlocks; however, during other games of the season, the
spacious parking lot has no trouble accommodating the audience. The community plans call for expanded or new Park-and-Ride lots, peak hour parking restrictions on highways such as Sunset Boulevard to add travel lanes along commuter routes, and integrated commercial, residential, and parking facilities (such as mixed use parking structures with commercial/retail on the ground floor).

**Community Plans**

Main concerns listed in the Northeast Los Angeles Community Plan include traffic bottlenecks, rail/surface street conflicts, competition for priority between cross-community and local street needs, poorly integrated systems of nonmotorized traffic, and impacts of major infrastructure projects. The Silver Lake-Echo Park-Elysian Valley Community Plan and Arroyo Seco Watershed Management and Restoration Plan also overlap portions of the opportunity site.

**Future Plans**

Through a TEA-21, High Priority Highway Project Authorization, $12 million has been earmarked to upgrade the southern terminus of SR-2 and to address transportation issues and community concerns on Glendale Boulevard. The purpose of this project is to develop a balanced transportation system serving local and regional transportation needs, as well as to reduce congestion and provide improved transportation mobility at the SR-2 freeway terminus. The following are the specific project objectives:

- Improve traffic flow and reduce congestion at the SR-2 freeway terminus;
- Design the freeway terminus to be compatible with the existing residential and commercial uses; and
- Provide pedestrian enhancement at the SR-2 freeway terminus.

Metro, in cooperation with LADOT and Caltrans, has prepared the Project Study Report/Project Development Support, a state-mandated document required as a first step toward identifying and implementing needed improvements.

**3.12.1.6 Chinatown-Cornfields Opportunity Area**

**Roadways**

Regional access to this area is provided by I-5, US-101, and SR-110. Arterial roadways in the vicinity include Alameda Street, which would also be expected to carry project-related traffic. In the AM peak period, the I-5 experiences LOS F in both directions; US-101 experiences Los F in the westbound direction and LOS D or better in the eastbound direction; and SR-110 experiences LOS D or better in the northbound direction, and LOS F in the southbound direction. In the PM peak period, I-5 experiences LOS F in both directions; US-101 experiences LOS F in both directions; US-101 experiences LOS D or better in the westbound direction and LOS F in the eastbound direction; and SR-110 experiences LOS F in both directions.

**Public Transit**

Metro bus lines and LADOT’s Commuter Express and DASH serve the opportunity area. Limited bus services on weekends impact retail and business districts on Broadway. See Figure 3.12-5 for railways and bus routes.
FIGURE 3.12-5
BUS and RAIL ROUTES
CHINATOWN-CORNFIELDS OPPORTUNITY AREA
Los Angeles River Revitalization Master Plan PEIR/PEIS

LEGEND
- MTA (BUS) LINES
- METRO GOLD LINE
- RED LINE
- UP RR & METROLINK
- Opportunity Area
- Los Angeles River Corridor
- Los Angeles River and Tributaries
- Freeways

Miles
0 0.125 0.25 0.5

Los Angeles County
City of Los Angeles

Los Angeles

Cesar Chavez Avenue
Main Street
Spring Street
Broadway

UNION STATION

Los Angeles

US-101

I-5

I-110

I-10
3.12 Transportation

**Railroads**
Metrolink, Amtrak, Union Pacific, and BNSF operate rail lines adjacent to the Los Angeles River. Metrolink, Amtrak, BNSF, and the MTA Gold Line all have termini at Union Station. The proposed High Speed Rail alignment also falls within this opportunity area. Union Pacific's Mission Yard is between the Los Angeles River and the I-5 freeway north of Mission Road.

**Parking**
The opportunity area includes Union Station, the Los Angeles County Central Jail, and the Twin Towers Correctional Facility. Parking issues are similar to ones mentioned for the Downtown Industrial Opportunity Area and the Taylor Yard Opportunity Area.

**Community Plans**
Transportation issues listed in the Central City Community Plan include inadequate and aging infrastructure, congestion resulting from the concentration of governmental and financial services, and limited bus service on weekends, which impacts retail and business districts. The Central City North Community Plan and Boyle Heights Community Plan also overlap portions of the opportunity area.

**Future Plans**
Construction has recently begun on the $898 million Metro Gold Line Eastside Extension project. The forecasted opening is in late 2009. Metro Gold Line Eastside Extension will be six miles long and will connect directly to the Metro Gold Line at Union Station. There will be eight new stations (two underground), including Little Tokyo/Arts District, Pico/Aliso, Mariachi Plaza, Soto, Indiana, Maravilla, East LA Civic Center, and Atlantic. The ride from Union Station to Atlantic Station, where Park & Ride will be provided, is estimated to be 17 minutes. Twin tunnels under Boyle Heights will be 1.8 miles long, and the system will be powered electrically with overhead wires.

3.12.1.7 Downtown Industrial Opportunity Area

**Roadways**
Regional access to this area is provided by US-101, I-5, SR-60, and I-110, and State Highway 72 (Whittier Boulevard). Arterial roadways in the vicinity, including Alameda Street, also would be expected to carry project-related traffic. In the AM peak period, the I-5 and I-10 experience LOS F in both directions; US-101 and SR-60 experience LOS F in the westbound direction and LOS D or better in the eastbound direction; and the SR-110 experiences LOS D or better in the northbound direction and LOS F in the southbound direction north of the US-101 and LOS F in both directions south of the US-101. In the PM peak period, I-5 and I-10 experience LOS F in both directions; US-101 and SR-60 experience LOS D or better in the westbound direction and LOS F in the eastbound direction; and SR-110 experiences LOS F in both directions.

**Public Transit**
The opportunity area is served by El Monte Busway, Metro Red, Gold, and Blue lines, LADOT Commuter Express Routes, and DASH. See Figure 3.12-6 for railways and bus routes.
3.12 Transportation

Railroads
Metrolink, Amtrak, Union Pacific, Metro Gold Line, BNSF railways, and Union Pacific's Mission Yard are within the opportunity area. The proposed high-speed rail alignment also passes through this opportunity area.

Parking
Major attractions include Chinatown, Japantown, Union Station, USC Medical Center, and five parks. Within two miles, there is also the Staples Center, the Los Angeles Convention Center, and the Museum of Contemporary Art. Parking garages have been integrated into new buildings, such as the Staples Center, to help meet demand. In order to reserve street parking for residents, there is a residential parking permit program, the first parking permit zone in a low-income neighborhood. The Los Angeles Civic Center Shared Facilities and Enhancement Plan enables shared parking facilities. Parking is limited to 0.60 space per 1,000 square feet of office space in the Downtown Traffic Impact Zone and 0.40 space for remote or intercept locations.

Community Plans
Transportation issues listed in the Central City Community Plan include inadequate and aging infrastructure, congestion resulting from the concentration of governmental and financial services, and limited bus service on weekends, which impacts retail and business districts. The Central City North Community Plan, Boyle Heights Community Plan, and Alameda District Specific Plan also overlap portions of the opportunity site.
3.13 UTILITIES AND INFRASTRUCTURE

This section is a discussion of the utilities and infrastructure found within the River Corridor. Utilities addressed in this PEIR/PEIS include those services provided to residents and commercial businesses within the city of Los Angeles, including electricity, natural gas, telecommunications, sewer and septic systems, water supply, treatment or distribution facilities, and sanitation services.

3.13.1 General Resource Description

The following generally describes the availability of utilities for the project area and general vicinity. The Los Angeles Department of Water and Power (LADWP) has responsibility for the city’s water and power facilities. LADWP considers details concerning water facilities (such as treatment plants, reservoirs, dams, water pipelines, and pump plants) and power facilities (such as power generation plants, transfer stations, and transmission lines) as confidential information based on homeland security concerns. Therefore, information detailing the locations of all water and power facilities within the project areas is available only to authorized individuals (City of Los Angeles 2006d).

3.13.1.1 Power

LADWP provides power to 3.9 million people throughout a service territory of 465 square miles that includes Los Angeles and parts of Owens Valley (LADWP 2006a). A total of 23 million megawatt hours of electricity were produced for these customers in 2005, using power generated from coal, natural gas, nuclear fuel, large hydroelectric plants, and renewable sources.

Recent legislation, and decision making by the LADWP Board of Commissioners, has resulted in the need for LADWP to develop a renewable portfolio standard to reduce dependence on fossil fuels. According to the current power content label (LADWP 2006b), coal burning makes up 48 percent of the power energy mix. By 2010, power generated through coal is projected to be reduced to 32 percent (LADWP 2006a). Renewable resources, which make up only five percent of energy sources, would be increased to provide 20 percent of the energy mix. Renewable resources that may be constructed or enhanced to address the renewable portfolio standard could include wind, geothermal, solar, landfill gas, digester gas, small hydroelectric, and municipal solid waste energy conversion.

3.13.1.2 Natural Gas

Natural gas is provided to customers in Los Angeles by Southern California Gas Company (SoCalGas), an affiliate of Sempra Energy. SoCalGas provides gas to residential, commercial, and industrial markets of Los Angeles, through a series of transportation, exchange, and storage facilities (CPUC 2004). Gas is supplied by regionally diverse sources, including California onshore and offshore sources, Southwestern US supply sources, such as the Permian, Anadarko, and San Juan Basins, the Rocky Mountains, and Canada (CPUC 2004). Most natural gas used in California comes from out-of-state basins. In 2003, 42 percent of natural gas came from the Southwest, 26 percent came from Canada, 14 percent from the Rocky Mountains, and only 18 percent from basins within California (CPUC 2006).

Underground Service Alert (also known as USA or Dig Alert) is a nonprofit organization supported by utility firms that provides specific information on the location of underground utilities to contractors on request, prior to construction.
The California Public Utilities Commission (CPUC) and the Federal Energy Regulatory Commission both regulate SoCalGas operations.

### 3.13.1.3 Telecommunications

Telecommunications utilities include telephone, television, and Internet. Corporations providing telecommunication services within the area include SBC, Verizon, Time Warner, Comcast, DirecTV, Dish, Adelphia, Qwest, and Earthlink.

LADWP maintains a network of fiber optic cables currently leased to governmental or commercial organizations. The city’s single mode fiber optic cables are continually being installed. The location of these underground utilities may be determined by requesting information from the Underground Service Alert organization.

### 3.13.1.4 Wastewater and Solid Waste

The City of Los Angeles’ Bureau of Sanitation provides three primary services for the city, including the wastewater program, watershed protection program, and solid resources program. Information provided below has been obtained from the Bureau’s 2005/2006 Overview of Services publication (Bureau 2005), unless otherwise noted.

The Bureau’s wastewater program provides collection, conveyance, treatment, and disposal of 550 million gallons per day (mgd) of wastewater and reuses 700 wet tons per day of biosolids. Services are provided to over four million people in a 600-square-mile area. The Bureau maintains 6,500 miles of sewer pipelines between 6 inches and 12 feet in diameter. Water treatment facilities include Hyperion Treatment Plant, Terminal Island Treatment Plant, Donald C. Tillman Water Reclamation Plant, and Los Angeles Glendale Water Reclamation Plant.

Under the watershed protection program, the Bureau ensures that the beneficial uses of receiving waters are protected and that stormwater pollution abatement programs are adhered to throughout all phases of wastewater management activities.

The Bureau is also charged with handling and disposing of solid wastes in the city of Los Angeles. Specifically, the Bureau provides solid waste collection and recycling, household hazardous waste handling, and the operation and maintenance of city of Los Angeles landfills. Solid wastes collected by the Bureau primarily include those produced by single-family residences, some smaller multifamily residences, the City Hall Complex, some public buildings, parks, and fire stations. Multifamily residences, such as apartment complexes and condominiums, and most other nonresidential properties (including public schools) are served by private collectors contracted directly by individual property owners to collect and transport their materials for disposal or recycling. These private haulers have access to a number of landfill and transfer stations throughout the city and county.

The Solid Resources Citywide Recycling Division (SRCRD) promotes the recycling of waste materials. This includes construction and demolition materials that can be recycled, such as concrete, asphalt, bricks, gypsum/wallboard, plate glass, and scrap metal.
3.13 Utilities and Infrastructure

Annually, the Bureau collects approximately a million tons of refuse from single and small multiple residences, 240,000 tons of recyclables, and 480,000 tons of yard trimmings.

3.13.2 Affected Environment

The discussions of the River Corridor and the individual Opportunity Areas that follow consider the presence of infrastructure elements in or adjacent to the project components and sites that could be impacted by the activities described in Chapter 2.

3.13.2.1 River Corridor

**Power**

The LADWP holds power line easements and rights-of-way along the river within and outside of the city limits of Los Angeles. Easements sometimes coincide with county and Corps flood control easements (River Project 2006a). Electricity infrastructure within the project area includes a complex extensive system of buried and aboveground power lines, substations, and service buildings. Aboveground power lines exist along either or both banks of the river throughout much of the project area, especially south of the intersection of I-5 and SR-134.

**Natural Gas/Oil Pipelines**

There are several natural gas and oil pipelines that cross the Los Angeles River either above via bridges or beneath in tunnels.

**Telecommunications**

Telephone lines in urban areas are typically located within street rights-of-way, aboveground on utility poles, and underground in newer areas. Other smaller utilities often share these underground trenches or duct banks. Several private companies maintain fiber optic cables or provide long distance/cable television and other telecommunications services in Los Angeles city and county.

**Wastewater and Solid Waste**

The Donald C. Tillman Water Reclamation Plant is between a quarter and a half mile north of the Los Angeles River in Woodley Avenue Park. The plant, serving San Fernando Valley communities, has the capacity to process 64 million gallons per day (mgd) with proposals to increase to 100 mgd. Sewage sludge removed from wastewater at the Donald C. Tillman and Los Angeles-Glendale Water Reclamation Plants is returned to the sewer system and treated at the Hyperion Treatment Plant, the city’s largest facility (City of Los Angeles 2006d, 2006e). There are two planned wastewater collection lines within a half mile of the Los Angeles River (the Glendale Burbank Interceptor Sewer and the Northeast Interceptor Sewer II). The Northeast Interceptor Sewer crosses beneath the river bed just north of the Glendale Freeway. These lines include service shafts within a half mile of the river.

Stormwater is absorbed into the ground or flows into the Los Angeles River. Stormwater collection paths, drains, and underground pipelines exist in the area that would be impacted by construction.
3.13 Utilities and Infrastructure

3.13.2.2 Canoga Park Opportunity Area

**Power**
There are no high voltage power lines along the river at the Canoga Park Opportunity Area.

**Natural Gas/Oil Pipelines**
There are no natural gas or oil supply pipelines along the river in the Canoga Park Opportunity Area.

**Telecommunications**
Telephone lines in urban areas are typically located within street rights-of-way, aboveground on utility poles, and underground in newer areas. Other smaller utilities often share these underground trenches or duct banks. Several private companies maintain fiber optic cables or provide long distance/cable television and other telecommunications services in the Los Angeles city and county area.

**Wastewater and Solid Waste**
Stormwater is absorbed into the ground or flows into the Los Angeles River. Stormwater collection paths, drains, and underground pipelines exist in the area that would be impacted by construction.

3.13.2.3 River Glen Opportunity Area

**Power**
Aboveground power lines exist along either or both banks of the river throughout the opportunity area.

**Natural Gas/Oil Pipelines**
There are no natural gas or oil supply pipelines along the river in the River Glen Opportunity Area.

**Telecommunications**
Telephone lines in urban areas are typically located within street rights-of-way, aboveground on utility poles, and underground in newer areas. Other smaller utilities often share these underground trenches or duct banks. Several private companies maintain fiber optic cables or provide long distance/cable television and other telecommunications services in the Los Angeles city and county area.

**Wastewater and Solid Waste**
The Los Angeles-Glendale Water Reclamation Plant is located at the southern edge of the opportunity area, on the southern side of Colorado Boulevard, just east of the Los Angeles River. The Los Angeles-Glendale Water Reclamation Plant serves eastern San Fernando Valley communities that are inside and outside of the Los Angeles city limits. It has the capacity to process 15 mgd with plans to increase to 30 mgd (City of Los Angeles 2006d).

Stormwater is absorbed into the ground and flows into the Los Angeles River. Stormwater collection paths, drains, and underground pipelines exist in the area that would be impacted by construction.
3.13 Utilities and Infrastructure

3.13.2.4 Taylor Yard Opportunity Area

Power
Aboveground power lines exist along the northeast bank of the river between the bank and the rail lines.

Natural Gas/Oil Pipelines
A 10-inch natural gas pipeline runs along the railroad alignment in the southern part of the opportunity area. It is not currently being used (California State Parks 2005).

Telecommunications
Five telecommunication lines run along the western rail line (California State Parks 2005).

Wastewater and Solid Waste
A 24-inch-diameter cement pipe sewer line runs across the northern third of the opportunity area, along Eagle Rock Boulevard and Cypress Avenue, then crossing San Fernando Road. The line crosses the Los Angeles River in a coupled (21-inch and 15-inch) vitrified clay line, connecting to the sewer line on the west side of the river underneath Newhall Street (California State Parks 2005). The Northeast Interceptor Sewer runs adjacent to the east side of the opportunity area (California State Parks 2005).

Stormwater is absorbed into the ground or flows into the Los Angeles River. Stormwater collection paths, drains, and underground pipelines exist in the area that would be impacted by construction.

Water Supply and Treatment
The Pollock Wells Treatment Plant which treats groundwater contaminated with trichloroethylene and perchlorethylene and is located at the northern end of the opportunity area, just west of the intersection of I-2 and the Los Angeles River. After the contaminants are removed, the treated water enters an underground reservoir, where it is chlorinated and then pumped into DWP’s distribution system (AGWA 1998).

3.13.2.5 Chinatown-Cornfields Opportunity Area

Power
The LADWP has utility easements along both sides of the river (City of Los Angeles 1996). Overhead power transmission lines run along the north levee of the Los Angeles River. There is an LADWP electrical distribution vault along the eastern side of the opportunity area (CDPR 2005b).

Natural Gas/Oil Pipelines
There is a 20-inch pressurized oil pipeline located along the northern edge of the opportunity area (CDPR 2005b).

Telecommunications
There are underground fiber optic telecommunication easements along the northern perimeter of the opportunity area (CDPR 2005b).
Wastewater and Solid Waste
The opportunity area is in the area served by the Hyperion Treatment Plant, located directly southwest of the Los Angeles International Airport. The Hyperion Treatment Plant treats wastewater from almost all of the city of Los Angeles. There is an existing sanitary sewer line along North Spring Street (CDPR 2005b).

Stormwater is absorbed into the ground or flows into the Los Angeles River. There is a storm drain sewer line and easement located along North Spring Street at the southwestern end of the proposed Los Angeles State Historic Park.

3.13.2.6 Downtown Industrial Opportunity Area

Power
The LADWP has utility easements along both sides of the river (City of Los Angeles 1996). Aboveground power lines exist along both banks of the river throughout the opportunity area.

Natural Gas/Oil Pipelines
There are no natural gas or oil supply pipelines along the river in the Downtown Industrial Opportunity Area.

Telecommunications
Telephone lines in urban areas are typically located within street rights-of-way, aboveground on utility poles, and underground in newer areas. Other smaller utilities often share these underground trenches or duct banks. Several private companies maintain fiber optic cables or provide long distance/cable television and other telecommunications services in the Los Angeles city and county area.

Wastewater and Solid Waste
Stormwater is absorbed into the ground or flows into the Los Angeles River. Stormwater collection paths, drains, and underground pipelines exist in the area that would be impacted by construction.
### 3.14 Socioeconomics

This section is an overview of the socioeconomic characteristics of the project area. For this PEIR/PEIS, socioeconomics includes the following:

- Demographic and economic characteristics of the project area, including population, racial composition, housing, employment, income, and industry/business composition, and
- Public Services, including schools, police, fire protection, hospitals, and libraries.

In order to focus the evaluation on the demographic and socioeconomic characteristics associated with the River Corridor and the five opportunity areas, zip codes within the River Corridor and each of the five opportunity areas were identified, as shown in Table 3.14-1, below. Data were collected for each zip code and compiled geographically to provide summary statistics for each area of interest. The most recent demographic data available at the zip code level are data from the 2000 census, although business pattern data presented are from more recent 2003 data.

<table>
<thead>
<tr>
<th>Zip Code*</th>
<th>Zip Code Zone Name</th>
<th>Opportunity Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>90012</td>
<td>Los Angeles</td>
<td>Chinatown-Cornfields, Downtown Industrial</td>
</tr>
<tr>
<td>90013</td>
<td>Los Angeles</td>
<td>Downtown Industrial</td>
</tr>
<tr>
<td>90021</td>
<td>Los Angeles</td>
<td>Downtown Industrial</td>
</tr>
<tr>
<td>90023</td>
<td>Los Angeles</td>
<td>Downtown Industrial</td>
</tr>
<tr>
<td>90026</td>
<td>Los Angeles</td>
<td>Taylor Yard</td>
</tr>
<tr>
<td>90027</td>
<td>Los Angeles</td>
<td>**</td>
</tr>
<tr>
<td>90031</td>
<td>Los Angeles</td>
<td>Taylor Yard, Chinatown-Cornfields</td>
</tr>
<tr>
<td>90033</td>
<td>Los Angeles</td>
<td>Downtown Industrial</td>
</tr>
<tr>
<td>90039</td>
<td>Los Angeles</td>
<td>River Glen, Taylor Yard</td>
</tr>
<tr>
<td>90058</td>
<td>Los Angeles</td>
<td>**</td>
</tr>
<tr>
<td>90065</td>
<td>Los Angeles</td>
<td>Taylor Yard</td>
</tr>
<tr>
<td>90068</td>
<td>Los Angeles</td>
<td>**</td>
</tr>
<tr>
<td>91201</td>
<td>Glendale</td>
<td>**</td>
</tr>
<tr>
<td>91202</td>
<td>Glendale</td>
<td>**</td>
</tr>
<tr>
<td>91203</td>
<td>Glendale</td>
<td>River Glen</td>
</tr>
<tr>
<td>91204</td>
<td>Glendale</td>
<td>River Glen</td>
</tr>
<tr>
<td>91210</td>
<td>Glendale</td>
<td>**</td>
</tr>
<tr>
<td>91303</td>
<td>Canoga Park</td>
<td>Canoga Park</td>
</tr>
<tr>
<td>91306</td>
<td>Winnetka</td>
<td>**</td>
</tr>
<tr>
<td>91316</td>
<td>Encino</td>
<td>**</td>
</tr>
<tr>
<td>91335</td>
<td>Reseda</td>
<td>**</td>
</tr>
<tr>
<td>91356</td>
<td>Tarzana</td>
<td>**</td>
</tr>
<tr>
<td>91367</td>
<td>Woodland Hills</td>
<td>**</td>
</tr>
<tr>
<td>91401</td>
<td>Van Nuys</td>
<td>**</td>
</tr>
<tr>
<td>91403</td>
<td>Sherman Oaks</td>
<td>**</td>
</tr>
<tr>
<td>91406</td>
<td>Van Nuys</td>
<td>**</td>
</tr>
<tr>
<td>91411</td>
<td>Van Nuys</td>
<td>**</td>
</tr>
<tr>
<td>91423</td>
<td>Sherman Oaks</td>
<td>**</td>
</tr>
<tr>
<td>91436</td>
<td>Encino</td>
<td>**</td>
</tr>
<tr>
<td>91502</td>
<td>Burbank</td>
<td>**</td>
</tr>
<tr>
<td>91505</td>
<td>Burbank</td>
<td>**</td>
</tr>
</tbody>
</table>
Table 3.14-1
Zip Codes Associated with River Corridor and Opportunity Areas

<table>
<thead>
<tr>
<th>Zip Code*</th>
<th>Zip Code Zone Name</th>
<th>Opportunity Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>91506</td>
<td>Burbank</td>
<td>**</td>
</tr>
<tr>
<td>91521</td>
<td>Burbank</td>
<td>**</td>
</tr>
<tr>
<td>91522</td>
<td>Burbank</td>
<td>**</td>
</tr>
<tr>
<td>91523</td>
<td>Burbank</td>
<td>**</td>
</tr>
<tr>
<td>91602</td>
<td>North Hollywood</td>
<td>**</td>
</tr>
<tr>
<td>91604</td>
<td>Studio City</td>
<td>**</td>
</tr>
<tr>
<td>91607</td>
<td>Valley Village</td>
<td>**</td>
</tr>
<tr>
<td>91608</td>
<td>Universal City</td>
<td>**</td>
</tr>
</tbody>
</table>

Notes:
*Listed zip codes are geographic zip code zones. Some zones include additional unique or P.O. box zip codes that are physically located within a zip code zone. These additional zip codes were identified and their data are included in component level data presented in this PEIR/PEIS.
**These zip codes intersect with or are adjacent to the River Corridor but do not intersect with an opportunity area.

3.14.1 Affected Environment

3.14.1.1 River Corridor

Population and Racial Composition
In 2000, zip codes within and adjacent to the River Corridor had a total population of 1,015,475—504,978 (50 percent) females and 510,497 (50 percent) males. The median age was 34.01 years. Thirteen percent of the population was under 18 years and 11 percent was 65 years and older. For people reporting one race alone, 57 percent were White, 4 percent were Black or African American, 1 percent were American Indian and Alaska Native, 11 percent were Asian, 0 percent were Native Hawaiian and Other Pacific Islander, and 21 percent were some other race. For census population reporting, people of Hispanic origin may be of any race. In 2004, 40 percent of the people residing in the zip codes were Hispanic.

Households
In 2000 the reported household population (that portion of the total population not living in group quarters) within the River Corridor zip code zones was 985,811. The average household size was 2.5 people; the average family size was 3.2 people.

Housing Characteristics
In 2000, there were 392,655 housing units within the River Corridor zip code zones, 4 percent of which were vacant. The River Corridor zip code zones had 375,526 occupied housing units, 145,211 (37 percent) of which were owner occupied and 230,315 (59 percent) were renter occupied. The median monthly housing costs for homeowners in these zip code zones was $1,728 and for renters was $342.

Income and Employment
In 2000, the median income of households within the zip code zones was $40,302, and 18 percent of individuals were below the poverty level. In 2003, for the employed population 16 years and older, the leading industries in the zip code zones were professional, scientific, and technical services (12.68%) and retail trade (11.07%).
Tables 3.14-2 and 3.14-3 present summary population, housing, employment, and income data for the zip code zones. Figure 3.14-1 shows the percentages of business establishments in different industries in the area.

### Table 3.14-2

**Population, Housing, Employment, and Income Summary Data in the River Corridor**

<table>
<thead>
<tr>
<th>General Characteristics</th>
<th>Number</th>
<th>Percent</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population</td>
<td>1,015,475</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>510,497</td>
<td>0.50</td>
<td>0.49</td>
</tr>
<tr>
<td>Female</td>
<td>504,978</td>
<td>0.50</td>
<td>0.51</td>
</tr>
<tr>
<td>Average median age (years)</td>
<td>34.01</td>
<td>(X)</td>
<td>35.30</td>
</tr>
<tr>
<td>Under 5 years</td>
<td>69,878</td>
<td>0.07</td>
<td>0.07</td>
</tr>
<tr>
<td>18 years and over</td>
<td>774,955</td>
<td>0.76</td>
<td>0.74</td>
</tr>
<tr>
<td>65 years and over</td>
<td>113,691</td>
<td>0.11</td>
<td>0.12</td>
</tr>
<tr>
<td>One race</td>
<td>957,578</td>
<td>0.94</td>
<td>0.98</td>
</tr>
<tr>
<td>White</td>
<td>579,832</td>
<td>0.57</td>
<td>0.75</td>
</tr>
<tr>
<td>Black or African American</td>
<td>40,996</td>
<td>0.04</td>
<td>0.12</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>7,060</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Asian</td>
<td>111,899</td>
<td>0.11</td>
<td>0.04</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander</td>
<td>1,258</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Some other race</td>
<td>216,533</td>
<td>0.21</td>
<td>0.06</td>
</tr>
<tr>
<td>Two or more races</td>
<td>57,897</td>
<td>0.06</td>
<td>0.02</td>
</tr>
<tr>
<td>Hispanic or Latino (of any race)</td>
<td>410,888</td>
<td>0.40</td>
<td>0.13</td>
</tr>
<tr>
<td>Household population</td>
<td>985,811</td>
<td>0.97</td>
<td>0.97</td>
</tr>
<tr>
<td>Group quarters population</td>
<td>29,664</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td>Average household size</td>
<td>2.5</td>
<td>(X)</td>
<td>2.6</td>
</tr>
<tr>
<td>Average family size</td>
<td>3.2</td>
<td>(X)</td>
<td>3.1</td>
</tr>
<tr>
<td>Total housing units</td>
<td>392,655</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupied housing units</td>
<td>375,526</td>
<td>0.96</td>
<td>0.91</td>
</tr>
<tr>
<td>Owner-occupied housing units</td>
<td>145,211</td>
<td>0.37</td>
<td>0.66</td>
</tr>
<tr>
<td>Renter-occupied housing units</td>
<td>230,315</td>
<td>0.59</td>
<td>0.34</td>
</tr>
<tr>
<td>Vacant housing units</td>
<td>17,129</td>
<td>0.04</td>
<td>0.09</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social Characteristics</th>
<th>Number</th>
<th>Percent</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population 25 years and over</td>
<td>681,158</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school graduate or higher</td>
<td>483,273</td>
<td>0.71</td>
<td>0.80</td>
</tr>
<tr>
<td>Bachelor's degree or higher</td>
<td>191,302</td>
<td>0.28</td>
<td>0.24</td>
</tr>
<tr>
<td>Civilian veterans (civilian population 18 years and over)</td>
<td>51,684</td>
<td>0.07</td>
<td>0.13</td>
</tr>
<tr>
<td>Disability status (population 5 years and over)</td>
<td>198,849</td>
<td>0.21</td>
<td>0.19</td>
</tr>
<tr>
<td>Foreign born</td>
<td>427,064</td>
<td>0.42</td>
<td>0.11</td>
</tr>
<tr>
<td>Male, now married, except separated (population 15 years and over)</td>
<td>190,154</td>
<td>0.47</td>
<td>0.57</td>
</tr>
<tr>
<td>Female, now married, except separated (population 15 years and over)</td>
<td>186,627</td>
<td>0.46</td>
<td>0.52</td>
</tr>
<tr>
<td>Speak a language other than English at home (population 5 years and over)</td>
<td>549,649</td>
<td>0.58</td>
<td>0.18</td>
</tr>
</tbody>
</table>
Table 3.14-2
Population, Housing, Employment, and Income Summary Data in the River Corridor

<table>
<thead>
<tr>
<th>Economic Characteristics</th>
<th>Number</th>
<th>Percent</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>In labor force (population 16 years and over)</td>
<td>489,182</td>
<td>0.61</td>
<td>0.64</td>
</tr>
<tr>
<td>Average mean travel time to work in minutes (workers 16 years and older)</td>
<td>29.11</td>
<td>(X) 25.50</td>
<td></td>
</tr>
<tr>
<td>Average median household income in 1999 (dollars)</td>
<td>40,302</td>
<td>(X) 41,994</td>
<td></td>
</tr>
<tr>
<td>Average median family income in 1999 (dollars)</td>
<td>48,581</td>
<td>(X) 50,046</td>
<td></td>
</tr>
<tr>
<td>Per capita income in 1999 (dollars)</td>
<td>24,456</td>
<td>(X) 21,587</td>
<td></td>
</tr>
<tr>
<td>Families below poverty level</td>
<td>34,012</td>
<td>0.15 0.09</td>
<td></td>
</tr>
<tr>
<td>Individuals below poverty level</td>
<td>185,948</td>
<td>0.18 0.12</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Housing Characteristics</th>
<th>Number</th>
<th>Percent</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-family owner-occupied homes</td>
<td>121,767</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median value (dollars)</td>
<td>273,285</td>
<td>(X) 119,600</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Housing Characteristics</th>
<th>Number</th>
<th>Percent</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly housing expense with a mortgage (dollars)</td>
<td>1,728</td>
<td>(X) 1,088</td>
<td></td>
</tr>
<tr>
<td>Monthly housing expense without a mortgage (dollars)</td>
<td>342</td>
<td>(X) 295</td>
<td></td>
</tr>
</tbody>
</table>

(X): Not applicable

Source: US Census Bureau 2000, Summary File 1 (SF 1) and Summary File 3 (SF 3)

Table 3.14-3
Business Establishments by Industry in the River Corridor

<table>
<thead>
<tr>
<th>Industry Code Description</th>
<th>Total Establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>36,132</td>
</tr>
<tr>
<td>Mining</td>
<td>8</td>
</tr>
<tr>
<td>Forestry, fishing, hunting, and agriculture</td>
<td>17</td>
</tr>
<tr>
<td>Utilities</td>
<td>20</td>
</tr>
<tr>
<td>Unclassified establishments</td>
<td>162</td>
</tr>
<tr>
<td>Management of companies and enterprises</td>
<td>206</td>
</tr>
<tr>
<td>Educational services</td>
<td>369</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>586</td>
</tr>
<tr>
<td>Administration, support, waste management, remediation services</td>
<td>1,519</td>
</tr>
<tr>
<td>Construction</td>
<td>1,657</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>1,783</td>
</tr>
<tr>
<td>Real estate and rental and leasing</td>
<td>1,837</td>
</tr>
<tr>
<td>Information</td>
<td>2,020</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>2,265</td>
</tr>
<tr>
<td>Arts, entertainment and recreation</td>
<td>2,347</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>2,592</td>
</tr>
<tr>
<td>Other services (except public administration)</td>
<td>2,656</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>3,729</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>3,778</td>
</tr>
<tr>
<td>Retail trade</td>
<td>4,000</td>
</tr>
<tr>
<td>Professional, scientific, and technical services</td>
<td>4,581</td>
</tr>
</tbody>
</table>
Figure 3.14-1
Percent of Total Business Establishments by Industry in the River Corridor

Public Schools
Public schools within the River Corridor are under the Los Angeles Unified School District (LAUSD), the Burbank Unified School District (BUSD), and the Glendale Unified School District (GUSD). The majority of the River Corridor is served by the LAUSD. Figure 3.14-2 shows the location of public schools within one half mile of the River Corridor.

LAUSD. Public K-12 schools within the City of Los Angeles in the project area are administered by the LAUSD. Within the LAUSD organization, the Superintendent of Schools reports to the Board of Education and oversees eight local district superintendents and schools. The local school districts in the project area include Local Districts 1, 2, 4, and 5. Table 3-14-4 lists those LAUSD schools that are within one-half mile of the River Corridor. In the 2004-2005 school year, 73 LAUSD schools provided education to 66,214 students. The table shows student-to-teacher ratios and student gender and racial composition breakdowns for each school.

BUSD. Public K-12 school service in those portions of the River Corridor that fall within the city of Burbank is provided by the BUSD. BUSD operates 20 educational facilities, including 11 elementary schools, 3 middle schools, and 3 high schools. In the 2004-2005 school year, BUSD enrolled a total of 16,783 students, 2,089 of which attended the two elementary schools and one middle school that lie within one-half mile of the River Corridor. Table 3-14-5 shows student-to-teacher ratios and student gender and racial composition breakdowns for the three BUSD schools within a half mile of the River Corridor.
GUSD. Public K-12 school service in those portions of the River Corridor that fall within the city of Glendale is provided by the GUSD. GUSD operates a total of 32 schools, including 7 elementary schools and one high school that lie within a half mile of the River Corridor. GUSD’s total enrollment for the 2004-2005 school year was 28,816 students, 7,137 of which attended the 8 schools within one-half mile of the River Corridor. Table 3-14-6 shows student-to-teacher ratios and student gender and racial composition breakdowns for these 8 BUSD schools.
<table>
<thead>
<tr>
<th>School</th>
<th>Grades</th>
<th>Address</th>
<th>Student to Teacher Ratio</th>
<th>Gender of Students</th>
<th>Racial Composition of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Students</td>
<td>Teachers</td>
<td>Ratio</td>
</tr>
<tr>
<td>ALBION STREET ELEMENTARY KG-05</td>
<td>KG-05</td>
<td>322 SOUTH AVE. 18</td>
<td>491</td>
<td>26</td>
<td>18.9</td>
</tr>
<tr>
<td>ALLESANDRO ELEMENTARY KG-06</td>
<td>KG-06</td>
<td>2210 RIVERSIDE DR.</td>
<td>582</td>
<td>35</td>
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<tr>
<td>ANN STREET ELEMENTARY KG-05</td>
<td>KG-05</td>
<td>126 EAST BLOOM ST.</td>
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<td>15.8</td>
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<tr>
<td>ARAGON AVENUE ELEMENTARY KG-05</td>
<td>KG-05</td>
<td>1118 ARAGON AVE.</td>
<td>687</td>
<td>39</td>
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</tr>
<tr>
<td>ATWATER AVENUE ELEMENTARY KG-05</td>
<td>KG-05</td>
<td>3271 SILVER LAKE BLVD.</td>
<td>485</td>
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<td>BERTRAND AVENUE ELEMENTARY KG-05</td>
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<td>7021 BERTRAND AVE.</td>
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<tr>
<td>BIRMINGHAM SENIOR HIGH 09-12</td>
<td>09-12</td>
<td>17000 HAYNES ST.</td>
<td>3,813</td>
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<td>BREED STREET ELEMENTARY KG-05</td>
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<td>2226 EAST THIRD ST.</td>
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<td>BRIDGE ELEMENTARY KG-05</td>
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<td>605 NORTH BOYLE AVE.</td>
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<td>CALVERT STREET ELEMENTARY KG-05</td>
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<td>19850 DELANO ST.</td>
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<td>CANOGA PARK ELEMENTARY KG-05</td>
<td>KG-05</td>
<td>7438 TOPANGA CANYON BLVD.</td>
<td>1,208</td>
<td>63</td>
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### Table 3.14-4
#### LAUSD Schools within ½ mile of the River Corridor

<table>
<thead>
<tr>
<th>School</th>
<th>Grades</th>
<th>Address</th>
<th>Student to Teacher Ratio</th>
<th>Gender of Students</th>
<th>Racial Composition of Students</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td>Teachers</td>
<td>Ratio</td>
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<td>CANOGA PARK SENIOR HIGH</td>
<td>09-12</td>
<td>6850 TOPANGA CANYON BLVD.</td>
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<tr>
<td>CARLSON (BERENECE) HOME HOSPITAL</td>
<td>KG-12</td>
<td>10952 WHIPPLE ST.</td>
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<td>CARPENTER AVENUE ELEMENTARY</td>
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<td>3909 CARPENTER AVE.</td>
<td>862</td>
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<td>CASTELAR STREET ELEMENTARY</td>
<td>KG-05</td>
<td>840 YALE ST.</td>
<td>841</td>
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<td>CHANDLER ELEMENTARY</td>
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<td>14030 WEDDINGTON ST.</td>
<td>520</td>
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<tr>
<td>COLFAX AVENUE ELEMENTARY</td>
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<td>11724 ADDISON ST.</td>
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<tr>
<td>DENA (CHRISTOPHER) ELEMENTARY</td>
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<td>1314 DACOTAH ST.</td>
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<td>DIXIE CANYON AVENUE ELEMENTARY</td>
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<td>4220 DIXIE CANYON AVE.</td>
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<td>School</td>
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<td>Students</td>
<td>Teachers</td>
<td>Ratio</td>
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<td>----------</td>
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<td>EMELITA STREET ELEMENTARY</td>
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<td>17931 HATTERAS ST.</td>
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<td>3350 FLETCHER DR.</td>
<td>888</td>
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<td>FULLBRIGHT AVENUE ELEMENTARY</td>
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<td>6940 FULLBRIGHT AVE.</td>
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<td>GLASSELL PARK ELEMENTARY</td>
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<td>2211 WEST AVE. 30</td>
<td>792</td>
<td>41</td>
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<tr>
<td>GLENSFELIZ BOULEVARD ELEMENTARY</td>
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<td>3955 GLENSFELIZ BLVD.</td>
<td>526</td>
<td>28</td>
<td>18.8</td>
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<tr>
<td>GRIFFIN AVENUE ELEMENTARY</td>
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<td>2025 GRIFFIN AVE.</td>
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<tr>
<td>HART STREET ELEMENTARY</td>
<td>KG-05</td>
<td>21040 HART ST.</td>
<td>975</td>
<td>52</td>
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<tr>
<td>HIGH TECH HIGH HIGH</td>
<td>09-12</td>
<td>17111 VICTORY BLVD.</td>
<td>191</td>
<td>10</td>
<td>18.7</td>
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<tr>
<td>HILLSIDE ELEMENTARY</td>
<td>KG-05</td>
<td>120 EAST AVE. 35</td>
<td>528</td>
<td>29</td>
<td>18.2</td>
</tr>
<tr>
<td>HOLLENBECK MIDDLE</td>
<td>06-08</td>
<td>2510 EAST SIXTH ST.</td>
<td>2,798</td>
<td>114</td>
<td>24.5</td>
</tr>
<tr>
<td>IRVING (WASHINGTON) MIDDLE</td>
<td>06-08</td>
<td>3010 ESTARA AVE.</td>
<td>1,805</td>
<td>77</td>
<td>23.4</td>
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</table>
### Table 3.14-4
LAUSD Schools within ½ mile of the River Corridor

<table>
<thead>
<tr>
<th>School</th>
<th>Grades</th>
<th>Address</th>
<th>Student to Teacher Ratio</th>
<th>Gender of Students</th>
<th>Racial Composition of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Students</td>
<td>Teachers</td>
<td>Ratio</td>
</tr>
<tr>
<td>IVANHOE ELEMENTARY KG-05</td>
<td>2828 HERKIMER ST.</td>
<td>356</td>
<td>19</td>
<td>19.2</td>
<td>186</td>
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<tr>
<td>IVY ACADEMIA KG-12 6051 DESOTO AVE.</td>
<td>289</td>
<td>15</td>
<td>19.3</td>
<td>140</td>
<td>149</td>
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<tr>
<td>KESTER AVENUE ELEMENTARY KG-05 5353 KESTER AVE.</td>
<td>877</td>
<td>43</td>
<td>20.6</td>
<td>425</td>
<td>452</td>
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<tr>
<td>KIPP LOS ANGELES COLLEGE PREPARATORY 05-08 1855 NORTH MAIN STREET</td>
<td>158</td>
<td>8</td>
<td>19.8</td>
<td>78</td>
<td>80</td>
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<tr>
<td>LEICHERM (DIANE S.) SPECIAL EDUCATION CENTER KG-12 19034 GAULT ST.</td>
<td>231</td>
<td>24</td>
<td>9.6</td>
<td>137</td>
<td>94</td>
</tr>
<tr>
<td>LEMAY STREET ELEMENTARY KG-05 17520 VANOWEN ST.</td>
<td>375</td>
<td>21</td>
<td>17.9</td>
<td>191</td>
<td>184</td>
</tr>
<tr>
<td>LOKRANTZ (SVEN) SPECIAL ED. CENTER KG 19451 WYANDOTTE ST.</td>
<td>153</td>
<td>17</td>
<td>9.0</td>
<td>90</td>
<td>63</td>
</tr>
<tr>
<td>LORETO STREET ELEMENTARY KG-05 3408 ARROYO SECO AVE.</td>
<td>652</td>
<td>33</td>
<td>19.8</td>
<td>354</td>
<td>298</td>
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<tr>
<td>LULL (FRED E.) SPECIAL ED. CENTER KG-12 17551 MIRANDA ST.</td>
<td>126</td>
<td>13</td>
<td>9.7</td>
<td>72</td>
<td>54</td>
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<tr>
<td>MAGNOLIA SCIENCE ACADEMY 06-12 18238 SHERMAN WAY</td>
<td>396</td>
<td>18</td>
<td>21.8</td>
<td>228</td>
<td>168</td>
</tr>
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</table>
### Table 3.14-4
LAUSD Schools within ½ mile of the River Corridor

<table>
<thead>
<tr>
<th>School</th>
<th>Grades</th>
<th>Address</th>
<th>Student to Teacher Ratio</th>
<th>Gender of Students</th>
<th>Racial Composition of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARSHALL (JOHN) SENIOR HIGH</td>
<td>09-12</td>
<td>3939 TRACY ST.</td>
<td>4,834 194 24.9</td>
<td>2,467 2,367</td>
<td>11 809 104 3,276 634</td>
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<tr>
<td>METROPOLITAN CONTINUATION</td>
<td>09-12</td>
<td>727 SOUTH WILSON ST.</td>
<td>199 12 17.3</td>
<td>126 73</td>
<td>- 2 30 165 2</td>
</tr>
<tr>
<td>MILAGRO CHARTER SCHOOL KG-05</td>
<td></td>
<td>3838 EAGLE ROCK BOULVARD</td>
<td>84 5 16.8</td>
<td>40 44</td>
<td>- - - 81 3</td>
</tr>
<tr>
<td>MILLIKAN (ROBERT A.) MIDDLE</td>
<td>06-08</td>
<td>5041 SUNNYSLOPE AVE.</td>
<td>2,098 83 25.4</td>
<td>932 1,166</td>
<td>12 112 250 754 970</td>
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<tr>
<td>MULHOLLAND (WILLIAM) MIDDLE</td>
<td>06-08</td>
<td>17120 VANOWEN ST.</td>
<td>1,887 81 23.2</td>
<td>909 978</td>
<td>9 94 94 1,509 181</td>
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<tr>
<td>MULTICULTURAL LEARNING CENTER KG-05</td>
<td>7510 DESOTO AVE.</td>
<td>221 10 22.1</td>
<td>130 91</td>
<td>- 7 6 189 19</td>
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<tr>
<td>NEWCASTLE ELEMENTARY KG-05</td>
<td></td>
<td>6520 NEWCASTLE AVE.</td>
<td>469 27 17.7</td>
<td>252 217</td>
<td>- 19 19 375 56</td>
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<tr>
<td>NIGHTINGALE (FLORENCE) MIDDLE KG-05</td>
<td>3311 NORTH FIGUEROA ST.</td>
<td>2,018 81 25.0</td>
<td>1,054 964</td>
<td>6 335 25 1,639 13</td>
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<tr>
<td>PARA LOS NINOS CHARTER KG-05</td>
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<td>845 EAST SIXTH ST.</td>
<td>194 10 19.4</td>
<td>90 104</td>
<td>- - 1 193 -</td>
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<tr>
<td>PUENTE CHARTER KG</td>
<td></td>
<td>501 SOUTH BOYLE AVE.</td>
<td>113 7 16.1</td>
<td>55 58</td>
<td>- - 20 93 -</td>
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<tr>
<td>REED (WALTER) MIDDLE KG-06</td>
<td></td>
<td>4525 IRVINE AVE.</td>
<td>2,088 96 21.8</td>
<td>1,090 998</td>
<td>9 130 149 1,316 484</td>
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</tbody>
</table>
### Table 3.14-4
LAUSD Schools within ½ mile of the River Corridor

<table>
<thead>
<tr>
<th>School</th>
<th>Grades</th>
<th>Address</th>
<th>Student to Teacher Ratio</th>
<th>Gender of Students</th>
<th>Racial Composition of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Students</td>
<td>Teachers</td>
<td>Ratio</td>
</tr>
<tr>
<td>RESEDA ELEMENTARY</td>
<td>KG-05</td>
<td>7265 AMIGO AVE.</td>
<td>507</td>
<td>27</td>
<td>18.8</td>
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<td>RESEDA SENIOR HIGH</td>
<td>09-12</td>
<td>18230 KITTRIDGE ST.</td>
<td>2,868</td>
<td>131</td>
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<td>RIO VISTA ELEMENTARY</td>
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<td>4243 SATSUMA AVE.</td>
<td>443</td>
<td>25</td>
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<td>RIVERSIDE DRIVE ELEMENTARY</td>
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<td>13061 RIVERSIDE DR.</td>
<td>671</td>
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<tr>
<td>ROOSEVELT (THEODORE) SENIOR HIGH</td>
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<td>456 SOUTH MATHEWS ST.</td>
<td>5,032</td>
<td>211</td>
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<tr>
<td>SECOND STREET ELEMENTARY</td>
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<td>1942 EAST SECOND ST.</td>
<td>654</td>
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<tr>
<td>SHERMAN OAKS CENTER FOR ENRICHED STUDIES</td>
<td>04-12</td>
<td>18605 ERWIN ST.</td>
<td>1,787</td>
<td>64</td>
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<td>14755 GREENLEAF ST.</td>
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<td>19452 HART ST.</td>
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<tr>
<td>School</td>
<td>Grades</td>
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<td>Teachers</td>
<td>Ratio</td>
</tr>
<tr>
<td>------------------------------</td>
<td>--------</td>
<td>----------------------------------------------</td>
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<tr>
<td>SUNRISE ELEMENTARY</td>
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<td>2821 EAST SEVENTH ST.</td>
<td>636</td>
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<td>7330 WINNETKA AVE.</td>
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<td>255 GABRIEL GARCIA MARQUEZ ST.</td>
<td>506</td>
<td>29</td>
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<td>VALLEY ALTERNATIVE MAGNET</td>
<td>KG-12</td>
<td>6701 BALBOA BLVD.</td>
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<td>27</td>
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<td>1,618</td>
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<td>TOTAL (LAUSD SCHOOLS WITHIN 1/2 MILE OF RIVER CORRIDOR):</td>
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<td>3,180</td>
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<tr>
<th>Race</th>
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</tr>
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<tr>
<td>Native American</td>
<td>51%</td>
</tr>
<tr>
<td>Asian</td>
<td>49%</td>
</tr>
<tr>
<td>Black</td>
<td>0%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>9%</td>
</tr>
<tr>
<td>White</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>72%</td>
</tr>
<tr>
<td>Percentage</td>
<td>14%</td>
</tr>
</tbody>
</table>

Table 3.14-4
LAUSD Schools within ½ mile of the River Corridor
### Table 3.14-5

**BUSD Schools within ½ mile of the River Corridor**

<table>
<thead>
<tr>
<th>School</th>
<th>Grades</th>
<th>Address</th>
<th>Student to Teacher Ratio</th>
<th>Gender of Students</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Students</td>
<td>Teachers</td>
<td>Ratio</td>
</tr>
<tr>
<td>JORDAN (DAVID STARR) MIDDLE</td>
<td>06-08</td>
<td>420 SOUTH MARIPOSA ST.</td>
<td>1,132</td>
<td>46</td>
<td>24.6</td>
</tr>
<tr>
<td>MCKINLEY (WILLIAM) ELEMENTARY</td>
<td>KG-05</td>
<td>349 WEST VALENCIA AVE.</td>
<td>529</td>
<td>27</td>
<td>20.0</td>
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<td>STEVENSON (R. L.) ELEMENTARY</td>
<td>KG-05</td>
<td>3333 OAK ST.</td>
<td>428</td>
<td>25</td>
<td>17.1</td>
</tr>
<tr>
<td>TOTAL (BUSD SCHOOLS WITHIN 1/2 MILE OF RIVER CORRIDOR):</td>
<td></td>
<td></td>
<td>2,089</td>
<td>98</td>
<td>21.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>49%</td>
<td>44%</td>
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### Table 3.14-6

GUSD Schools within ½ mile of the River Corridor

<table>
<thead>
<tr>
<th>School</th>
<th>Grades</th>
<th>Address</th>
<th>Student to Teacher Ratio</th>
<th>Gender of Students</th>
<th>Racial Composition of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Students</td>
<td>Teachers</td>
<td>Ratio</td>
</tr>
<tr>
<td>CERRITOS ELEMENTARY</td>
<td>KG-06</td>
<td>120 EAST CERRITOS AVE.</td>
<td>523</td>
<td>28</td>
<td>18.7</td>
</tr>
<tr>
<td>COLUMBUS ELEMENTARY</td>
<td>KG-06</td>
<td>425 WEST MILFORD ST.</td>
<td>883</td>
<td>41</td>
<td>21.5</td>
</tr>
<tr>
<td>EDISON (THOMAS) ELEMENTARY</td>
<td>KG-06</td>
<td>435 SOUTH PACIFIC AVE.</td>
<td>795</td>
<td>39</td>
<td>20.4</td>
</tr>
<tr>
<td>FRANKLIN (BENJAMIN) ELEMENTARY</td>
<td>KG-06</td>
<td>1610 LAKE ST.</td>
<td>390</td>
<td>21</td>
<td>18.6</td>
</tr>
<tr>
<td>HOOVER (HERBERT) SENIOR HIGH</td>
<td>09-12</td>
<td>651 GLENWOOD RD.</td>
<td>2,568</td>
<td>112</td>
<td>22.8</td>
</tr>
<tr>
<td>JEFFERSON (THOMAS) ELEMENTARY</td>
<td>KG-06</td>
<td>1540 FIFTH ST.</td>
<td>519</td>
<td>26</td>
<td>20.3</td>
</tr>
<tr>
<td>KEPPEL (MARK) ELEMENTARY</td>
<td>KG-06</td>
<td>730 GLENWOOD RD.</td>
<td>975</td>
<td>45</td>
<td>21.7</td>
</tr>
<tr>
<td>TOTAL (GUSD SCHOOLS WITHIN 1/2 MILE OF RIVER CORRIDOR):</td>
<td></td>
<td></td>
<td>6,653</td>
<td>312</td>
<td>144</td>
</tr>
</tbody>
</table>

Students: 50%; Teachers: 50%; Hispanic: 15%; Black: 1%; White: 32%; 50%;
Police
Police service within the River Corridor is provided by the Los Angeles, Burbank, and Glendale Police Departments within their respective jurisdictions.

Los Angeles Police Department. Most of the River Corridor is served by the Los Angeles Police Department (LAPD), whose stated mission is “to safeguard the lives and property of the people we serve, to reduce the incidence and fear of crime, and to enhance public safety while working with the diverse communities to improve their quality of life.” To accomplish this mission over a broad geographic jurisdiction, LAPD is organized into four bureaus and 19 divisions (Figure 3.14-3). The LAPD bureaus and their divisions that are in or adjacent to the River Corridor are presented in Table 3.14-7.
Burbank Police Department. Portions of the River Corridor are served by the Burbank Police Department. The Burbank Police and Fire Headquarters Facility is at 200 North Third Street in Burbank. The Mission of the Burbank Police Department is to work in partnership with the community to achieve positive impacts on crime and traffic, and to provide professional police service in an ethical and courteous manner. To accomplish its mission, the department operates four major divisions: Patrol, Investigation, Administrative Services, and Special Operations. Pursuant to the direction of the Burbank City Council and the Department's master plan, the Police Department strives to maintain a ratio of 1.6 sworn officers for every 1,000 residents, as well as appropriate levels of civilian support personnel. Figure 3.14.4 shows the location of the Burbank Police Department.

Glendale Police Department. Portions of the River Corridor are served by the Glendale Police Department. The Glendale Police Department has over 500 employees and serves a community of 207,000 people covering 30.6 square miles. Glendale is the third largest city in Los Angeles County, with a Police Department budget of $55.5 million. It is noted for being one of the safest large cities in the country. The Department recently completed a transition into a brand new 160,000 square foot facility, located at 131 North Isabel Street in Glendale. (GPD 2006). Figure 3.14.5 shows the location of the Glendale Police Department.
Table 3.14-7
Police Departments Serving the River Corridor

<table>
<thead>
<tr>
<th>City of Los Angeles</th>
<th>LAPD Bureau</th>
<th>LAPD Division</th>
<th>Within Opportunity Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valley Bureau</td>
<td>West Valley Division</td>
<td>Canoga Park High School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Van Nuys Division</td>
<td>River Corridor Only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>North Hollywood</td>
<td>River Corridor Only</td>
<td></td>
</tr>
<tr>
<td>West Bureau</td>
<td>Hollywood Division</td>
<td>River Corridor Only</td>
<td></td>
</tr>
<tr>
<td>Central Bureau</td>
<td>Northeast Division</td>
<td>River Glen and Taylor Yard</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Central Division</td>
<td>Chinatown-Cornfields</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hollenbeck Division</td>
<td>Chinatown-Cornfields Area</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Newton Division</td>
<td>Downtown Industrial</td>
<td></td>
</tr>
<tr>
<td>City of Burbank</td>
<td>Burbank Police Department</td>
<td>River Corridor Only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Glendale Police Department</td>
<td>River Glen</td>
<td></td>
</tr>
</tbody>
</table>

Fire Protection and Emergency Medical Services
The region of influence (ROI) for fire protection and emergency medical services is one mile from the river and opportunity areas. Because the ROI for the Taylor Yard, Chinatown-Cornfields, and Downtown Industrial Opportunity Areas overlap, some fire stations are located in more than one opportunity area.
Within the city of Los Angeles, fire prevention and suppression services and emergency medical services are provided by the Los Angeles Fire Department (LAFD) (City of Los Angeles 1998c). The LAFD has 3,382 uniformed personnel and 333 non-sworn support personnel at 103 neighborhood fire stations serving a 471-square-mile jurisdiction (City of Los Angeles 2005). The LAFD operates more than 95 fire stations grouped into 16 battalions and three divisions. Equipment includes engines, trucks, paramedic engines, crash units, hazardous materials response and decontamination units, foam carriers, rescue ambulances, helicopters, and boats.

Parts of the River Corridor are served by the Glendale Fire Department and the Burbank Fire Department. The Glendale Fire Department stations closest to the River Corridor are Station 27 (1127 Western Avenue), Station 21 (421 Oak Street), and Station 22 (1201 S. Glendale Avenue). The Glendale Fire Department Emergency Medical Care Station is at 780 Flower Street (Glendale Fire Department 2006).

The Burbank Fire Department has 145 employees and operates six engine companies, including one that is paramedic equipped and staffed, two ladder truck companies, and three paramedic rescue ambulances out of six strategically located fire stations. Burbank Fire Stations include Burbank Fire Headquarters (311 E. Orange Grove Avenue), Station 11 (311 E. Orange Grove Avenue), Station 12 (644 N. Hollywood Way), Station 13 (2713 Thornton Avenue), Station 14 (2305 W. Burbank Boulevard), and Station 16 (1600 N. Bel Aire Drive) (Burbank Fire Department 2006).

The location and number of stations that would be called in the event of a fire or other emergency depend on a number of factors, including the type and severity of the emergency and the availability of the nearest fire station. Medical services are also provided by nearby hospitals and medical centers.

There are approximately fourteen fire stations along the River Corridor ROI. They provide fire prevention and suppression services and emergency medical services. Also, the headquarters for the arson unit and fire headquarters are in the River Corridor ROI. The headquarters for the arson unit is west of Interstate 5 and north of Silver Lake Reservoir. Fire headquarters is west of Interstate 5 and south of US 101.

There are approximately eight hospitals and medical centers in the River Corridor ROI. Most of them are near both ends of the River Corridor, and Memorial Hospital of Glendale is near the middle, in Glendale.

**Libraries**

The Los Angeles Public Library, a department of the City of Los Angeles, provides access to information, ideas, books and technology through its Central Library in downtown Los Angeles and 71 branches throughout the city. The library offers state-of-the-art facilities, large multimedia collections, the latest technology, and more than 17,000 free public programs. Over 14 million people visited the library in 2004. The following branches fall within or adjacent to the River Corridor:

- **East Valley Area**
  - Sherman Oaks—14245 Moorpark Street (item 52 on Figure 3.14-6);
  - Studio City—12511 Moorpark Street (item 25 on Figure 3.14-6);
- **Hollywood Area**
3.14 Socioeconomics

- Atwater Village—3379 Glendale Boulevard (item 44 on Figure 3.14-6);
- Silver Lake (in development)—2411 Glendale Boulevard (item 52 on Figure 3.14-6);
- Northeast Area
  - Benjamin Franklin—2200 E. First Street (item 01 on Figure 3.14-6);
  - Chinatown—639 N. Hill Street (213) (item 63 on Figure 3.14-6);
  - Cypress Park—1150 Cypress Avenue (item 28 on Figure 3.14-6);
  - Lincoln Heights—2530 Workman Street (item 02 on Figure 3.14-6);
  - Little Tokyo—203 S. Los Angeles Street (item 64 on Figure 3.14-6);
- West Valley Area
  - Canoga Park—20939 Sherman Way (item 24 on Figure 3.14-6); and
  - West Valley Regional Branch—19036 Vanowen Street (item 50 on Figure 3.14-6).

City of Glendale Public Libraries in or adjacent to the River Corridor are:

- Grandview Branch—1535 Fifth and
- Pacific Park Branch—501 S. Pacific Avenue

City of Burbank Public Libraries in or adjacent to the River Corridor are:

- Burbank Central Library—110 North Glenoaks Boulevard, Burbank;
- Buena Vista Branch Library—300 North Buena Vista Street, Burbank; and
- Burbank Central Library—110 North Glenoaks Boulevard, Burbank.

3.14.1.2 Canoga Park Opportunity Area

Population and Racial Composition
In 2000, zip codes within and adjacent to the Canoga Park Opportunity Area had a total population of 23,508, 11,284 females (48 percent) and 12,224 males (52 percent). The median age was 28.7 years. Twenty-four percent of the population were under 18 years and 5 percent were 65 years and older. For people reporting one race alone, 50.5 percent were White, 4 percent were Black or African American, 1 percent were American Indian and Alaska Native, 8.7 percent were Asian, 2 percent were Native Hawaiian and Other Pacific Islander, and 30.1 percent were some other race. For census population reporting, people of Hispanic origin may be of any race. In 2004, 59 percent of the people residing in the zip codes associated with the Canoga Park Opportunity Area were Hispanic.

Households
In 2000, the reported household population (that portion of the total population not living in group quarters) associated with the Canoga Park Opportunity Area zip code zones was 23,472. The average household size was 3.1 people. The average family size was 3.7 people.
Housing Characteristics
In 2000, there were 7,758 housing units within the zip code zones associated with the Canoga Park Opportunity Area, three percent of which were vacant. The Canoga Park Opportunity Area zip code zones had 7,537 occupied housing units, 2,270 (30 percent) owner occupied and 5,267 (70 percent) renter occupied. The median monthly housing costs for homeowners in these zip code zones were $1,367 and for renters were $341.

Income and Employment
In 2000, the median income of households within the zip code zones associated with the Canoga Park Opportunity Area was $36,769 and 21 percent of individuals were below the poverty level. In 2003, for the employed population 16 years and older, the leading industries in the zip code zones associated with the Canoga Park Opportunity Area were retail trade (25.88 percent) and professional, scientific, management, administrative, and waste management services (10.92 percent).

Tables 3.14-8 and 3.14-9 present summary population, housing, employment, and income data for the zip code zones associated with the Canoga Park Opportunity Area. Figure 3.14-6 shows the percentages of business establishments in different industries in the area.

Table 3.14-8
Population, Housing, Employment, and Income Summary Data in Canoga Park Opportunity Area

<table>
<thead>
<tr>
<th>General Characteristics</th>
<th>Number</th>
<th>Percent</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population</td>
<td>23,508</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>12,224</td>
<td>0.52</td>
<td>0.49</td>
</tr>
<tr>
<td>Female</td>
<td>11,284</td>
<td>0.48</td>
<td>0.51</td>
</tr>
<tr>
<td>Median age (years)</td>
<td>28.70</td>
<td>(X)</td>
<td>35.30</td>
</tr>
<tr>
<td>Under 5 years</td>
<td>2,284</td>
<td>0.10</td>
<td>0.07</td>
</tr>
<tr>
<td>18 years and over</td>
<td>16,597</td>
<td>0.71</td>
<td>0.74</td>
</tr>
<tr>
<td>65 years and over</td>
<td>1,226</td>
<td>0.05</td>
<td>0.12</td>
</tr>
<tr>
<td>One race</td>
<td>22,233</td>
<td>.95</td>
<td>0.98</td>
</tr>
<tr>
<td>White</td>
<td>11,875</td>
<td>.51</td>
<td>0.75</td>
</tr>
<tr>
<td>Black or African American</td>
<td>939</td>
<td>.04</td>
<td>0.12</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>245</td>
<td>.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Asian</td>
<td>2,050</td>
<td>.09</td>
<td>0.04</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander</td>
<td>39</td>
<td>.002</td>
<td>0.00</td>
</tr>
<tr>
<td>Some other race</td>
<td>7,085</td>
<td>.30</td>
<td>0.06</td>
</tr>
<tr>
<td>Two or more races</td>
<td>1,275</td>
<td>.05</td>
<td>0.02</td>
</tr>
<tr>
<td>Hispanic or Latino (of any race)</td>
<td>13,967</td>
<td>0.59</td>
<td>0.13</td>
</tr>
</tbody>
</table>

| Household population          | 23,472 | 0.998  | 0.97 |
| Group quarters population     | 36     | 0.002  | 0.03 |
| Average household size        | 3.1    | (X)    | 2.6  |
| Average family size           | 3.7    | (X)    | 3.1  |

| Total housing units           | 7,758  |        |      |
| Occupied housing units        | 7,537  | 0.97   | 0.91 |
Table 3.14-8  
Population, Housing, Employment, and Income Summary Data in Canoga Park Opportunity Area

| Owner-occupied housing units | 2,270 | 0.30 | 0.66 |
| Rent-occupied housing units | 5,267 | 0.70 | 0.34 |
| Vacant housing units | 221 | 0.03 | 0.09 |

**Social Characteristics**

<table>
<thead>
<tr>
<th>Social Characteristic</th>
<th>Number</th>
<th>Percent</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population 25 years and over</td>
<td>13,515</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school graduate or higher</td>
<td>7,606</td>
<td>0.56</td>
<td>0.80</td>
</tr>
<tr>
<td>Bachelor’s degree or higher</td>
<td>2,160</td>
<td>0.16</td>
<td>0.24</td>
</tr>
<tr>
<td>Civilian veterans (civilian population 18 years and over)</td>
<td>774</td>
<td>0.05</td>
<td>0.13</td>
</tr>
<tr>
<td>Disability status (population 5 years and over)</td>
<td>5,092</td>
<td>0.24</td>
<td>0.19</td>
</tr>
<tr>
<td>Foreign born</td>
<td>10,976</td>
<td>0.47</td>
<td>0.11</td>
</tr>
<tr>
<td>Male, now married, except separated (population 15 years and over)</td>
<td>3,967</td>
<td>0.44</td>
<td>0.57</td>
</tr>
<tr>
<td>Female, now married, except separated (population 15 years and over)</td>
<td>3,903</td>
<td>0.47</td>
<td>0.52</td>
</tr>
<tr>
<td>Speak a language other than English at home (population 5 years and over)</td>
<td>14,189</td>
<td>0.67</td>
<td>0.18</td>
</tr>
</tbody>
</table>

**Economic Characteristics**

<table>
<thead>
<tr>
<th>Economic Characteristic</th>
<th>Number</th>
<th>Percent</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>In labor force (population 16 years and over)</td>
<td>11,490</td>
<td>0.67</td>
<td>0.64</td>
</tr>
<tr>
<td>Mean travel time to work in minutes (workers 16 years and older)</td>
<td>27</td>
<td>(X)</td>
<td>25.50</td>
</tr>
<tr>
<td>Median household income in 1999 (dollars)</td>
<td>36,769</td>
<td>(X)</td>
<td>41,994</td>
</tr>
<tr>
<td>Median family income in 1999 (dollars)</td>
<td>35,827</td>
<td>(X)</td>
<td>50,046</td>
</tr>
<tr>
<td>Per capita income in 1999 (dollars)</td>
<td>14,853</td>
<td>(X)</td>
<td>21,587</td>
</tr>
<tr>
<td>Families below poverty level</td>
<td>862</td>
<td>0.18</td>
<td>0.09</td>
</tr>
<tr>
<td>Individuals below poverty level</td>
<td>4,950</td>
<td>0.21</td>
<td>0.12</td>
</tr>
</tbody>
</table>

**Housing Characteristics**

<table>
<thead>
<tr>
<th>Housing Characteristic</th>
<th>Number</th>
<th>Percent</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-family owner-occupied homes</td>
<td>1,821</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median value (dollars)</td>
<td>168,000</td>
<td>(X)</td>
<td>119,600</td>
</tr>
<tr>
<td>Monthly housing expense with a mortgage (dollars)</td>
<td>1,367</td>
<td>(X)</td>
<td>1,088</td>
</tr>
<tr>
<td>Monthly housing expense without a mortgage (dollars)</td>
<td>341</td>
<td>(X)</td>
<td>295</td>
</tr>
</tbody>
</table>

(X): Not applicable.
Source: Census 2000, US Census Bureau, Summary File 1 (SF 1) and Summary File 3 (SF 3)
Table 3.14-9
Business Establishments by Industry in Canoga Park Opportunity Area

<table>
<thead>
<tr>
<th>Industry Code Description</th>
<th>Total Establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>989</td>
</tr>
<tr>
<td>Management of companies and enterprises</td>
<td>3</td>
</tr>
<tr>
<td>Unclassified establishments</td>
<td>4</td>
</tr>
<tr>
<td>Arts, entertainment, and recreation</td>
<td>5</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>13</td>
</tr>
<tr>
<td>Educational services</td>
<td>16</td>
</tr>
<tr>
<td>Information</td>
<td>32</td>
</tr>
<tr>
<td>Real estate, rental, and leasing</td>
<td>33</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>39</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>39</td>
</tr>
<tr>
<td>Administration, support, waste management, remediation services</td>
<td>53</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>54</td>
</tr>
<tr>
<td>Construction</td>
<td>78</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>79</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>80</td>
</tr>
<tr>
<td>Other services (except public administration)</td>
<td>97</td>
</tr>
<tr>
<td>Professional, scientific, and technical services</td>
<td>108</td>
</tr>
<tr>
<td>Retail trade</td>
<td>256</td>
</tr>
</tbody>
</table>

Figure 3.14-6
Percent of Total Business Establishments by Industry in Canoga Park Opportunity Area
**Public Schools**
The Canoga Park Opportunity Area is within Local School District 1 of the LAUSD. This local school district is described in the above section on the River Corridor. Hart Street Elementary School and Canoga Park High School are both within the opportunity area. Schools serving this opportunity area and their capacities are presented in Table 3.14-10.

<table>
<thead>
<tr>
<th>Elementary Schools</th>
<th>Middle Schools</th>
<th>High Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Capacity</td>
<td>Name</td>
</tr>
<tr>
<td>Hart</td>
<td>908</td>
<td>Columbus</td>
</tr>
<tr>
<td>Canoga Park</td>
<td>1,227</td>
<td>Parkman</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Canoga Park</td>
</tr>
</tbody>
</table>

**Police Protection**
The Canoga Park Opportunity Area is served by the West Valley Community Police Station of LAPD’s Valley Bureau. The bureau and station are described in the above section on the River Corridor.

**Fire Protection and Emergency Medical Services**
Fire Station 72 is in the Canoga Park Opportunity Area ROI. It is on De Soto Avenue and on the east side of the opportunity area. It provides fire prevention and suppression services and emergency medical services. There are no hospitals or medical centers in the Canoga Park Opportunity Area ROI.

**Libraries**
The Canoga Park Branch of the Los Angeles Public Library is in the Canoga Park Opportunity Area ROI. The branch is at 20939 Sherman Way (item 24 on Figure 3.14-6).

### 3.14.1.3 River Glen Opportunity Area

**Population and Racial Composition**
In 2000, zip codes within and adjacent to the River Glen Opportunity Area had a total population of 60,782, 30,515 females (50 percent) and 30,267 males (50 percent). The median age was 35 years. Eleven percent of the population were under 18 years and 11 percent were 65 years and older. For people reporting one race alone, 50 percent were White, 2 percent were Black or African American, 1 percent were American Indian and Alaska Native, 18 percent were Asian, 0 percent were Native Hawaiian and Other Pacific Islander, and 20 percent were some other race. For census population reporting, people of Hispanic origin may be of any race. In 2004, 38 percent of the people residing in the zip codes associated with the River Glen Opportunity Area were Hispanic.

**Households**
In 2000 the reported household population (that portion of the total population not living in group quarters) associated with the River Glen Opportunity Area zip code zones was 59,596. The average household size was 2.7 people. The average family size was 3.4 people.
**Housing Characteristics**

In 2000, there were 23,089 housing units within the zip code zones associated with the River Glen Opportunity Area, four percent of which were vacant. The River Glen Opportunity Area zip code zones had 22,262 occupied housing units, 7,151 (31 percent) owner occupied and 15,111 (65 percent) renter occupied. The median monthly housing costs for homeowners in these zip code zones were $1,448 and for renters were $276.

**Income and Employment**

In 2000, the median income of households within the zip code zones associated with the River Glen Opportunity Area was $36,768 and 16 percent of individuals were below the poverty level. In 2003, for the employed population 16 years and older, the leading industries in the zip code zones associated with the River Glen Opportunity Area were professional, scientific, management, administrative, and waste management services (14.77 percent) and health care and social assistance (13.78 percent).

Tables 3.14-11 and 3.14-12 present summary population, housing, employment and income data for the zip code zones associated with the River Glen Opportunity Area. Figure 3.14-7 shows the percentages of business establishments in different industries in the area.

<table>
<thead>
<tr>
<th>Table 3.14-11</th>
<th>Population, Housing, Employment, and Income Summary Data in River Glen Opportunity Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Characteristics</strong></td>
<td><strong>Number</strong></td>
</tr>
<tr>
<td>Total population</td>
<td>60,782</td>
</tr>
<tr>
<td>Male</td>
<td>30,267</td>
</tr>
<tr>
<td>Female</td>
<td>30,515</td>
</tr>
<tr>
<td>Average median age (years)</td>
<td>35</td>
</tr>
<tr>
<td>Under 5 years</td>
<td>3,813</td>
</tr>
<tr>
<td>18 years and over</td>
<td>47,170</td>
</tr>
<tr>
<td>65 years and over</td>
<td>6,957</td>
</tr>
<tr>
<td>One race</td>
<td>55,331</td>
</tr>
<tr>
<td>White</td>
<td>30,403</td>
</tr>
<tr>
<td>Black or African American</td>
<td>1,271</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>382</td>
</tr>
<tr>
<td>Asian</td>
<td>11,241</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander</td>
<td>61</td>
</tr>
<tr>
<td>Some other race</td>
<td>11,973</td>
</tr>
<tr>
<td>Two or more races</td>
<td>5,451</td>
</tr>
<tr>
<td>Hispanic or Latino (of any race)</td>
<td>23,228</td>
</tr>
<tr>
<td>Household population</td>
<td>59,596</td>
</tr>
<tr>
<td>Group quarters population</td>
<td>1,186</td>
</tr>
<tr>
<td>Average household size</td>
<td>2.7</td>
</tr>
<tr>
<td>Average family size</td>
<td>3.4</td>
</tr>
<tr>
<td>Total housing units</td>
<td>23,089</td>
</tr>
<tr>
<td>Occupied housing units</td>
<td>22,262</td>
</tr>
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</table>
### Table 3.14-11
**Population, Housing, Employment, and Income Summary Data in River Glen Opportunity Area**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Number</th>
<th>Percent</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner-occupied housing units</td>
<td>7,151</td>
<td>0.31</td>
<td>0.66</td>
</tr>
<tr>
<td>Renter-occupied housing units</td>
<td>15,111</td>
<td>0.65</td>
<td>0.34</td>
</tr>
<tr>
<td>Vacant housing units</td>
<td>827</td>
<td>0.04</td>
<td>0.09</td>
</tr>
<tr>
<td><strong>Social Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population 25 years and over</td>
<td>41,657</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school graduate or higher</td>
<td>29,968</td>
<td>0.72</td>
<td>0.80</td>
</tr>
<tr>
<td>Bachelor’s degree or higher</td>
<td>11,972</td>
<td>0.29</td>
<td>0.24</td>
</tr>
<tr>
<td>Civilian veterans (civilian population 18 years and over)</td>
<td>2,298</td>
<td>0.05</td>
<td>0.13</td>
</tr>
<tr>
<td>Disability status (population 5 years and over)</td>
<td>12,825</td>
<td>0.23</td>
<td>0.19</td>
</tr>
<tr>
<td>Foreign born</td>
<td>32,656</td>
<td>0.54</td>
<td>0.11</td>
</tr>
<tr>
<td>Male, now married, except separated (population 15 years and over)</td>
<td>11,846</td>
<td>0.49</td>
<td>0.57</td>
</tr>
<tr>
<td>Female, now married, except separated (population 15 years and over)</td>
<td>11,559</td>
<td>0.47</td>
<td>0.52</td>
</tr>
<tr>
<td>Speak a language other than English at home (population 5 years and over)</td>
<td>40,815</td>
<td>0.72</td>
<td>0.18</td>
</tr>
<tr>
<td><strong>Economic Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In labor force (population 16 years and over)</td>
<td>30,266</td>
<td>0.63</td>
<td>0.64</td>
</tr>
<tr>
<td>Average mean travel time to work in minutes (workers 16 years and older)</td>
<td>28</td>
<td>(X)</td>
<td>25.50</td>
</tr>
<tr>
<td>Average median household income in 1999 (dollars)</td>
<td>36,768</td>
<td>(X)</td>
<td>41,994</td>
</tr>
<tr>
<td>Average median family income in 1999 (dollars)</td>
<td>40,608</td>
<td>(X)</td>
<td>50,046</td>
</tr>
<tr>
<td>Per capita income in 1999 (dollars)</td>
<td>18,347</td>
<td>(X)</td>
<td>21,587</td>
</tr>
<tr>
<td>Families below poverty level</td>
<td>2,081</td>
<td>0.15</td>
<td>0.09</td>
</tr>
<tr>
<td>Individuals below poverty level</td>
<td>9,839</td>
<td>0.16</td>
<td>0.12</td>
</tr>
<tr>
<td><strong>Housing Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-family owner-occupied homes</td>
<td>5,293</td>
<td></td>
<td>119,600</td>
</tr>
<tr>
<td>Median value (dollars)</td>
<td>222,400</td>
<td>(X)</td>
<td></td>
</tr>
<tr>
<td>Monthly housing expense with a mortgage (dollars)</td>
<td>1,448</td>
<td>(X)</td>
<td>1,088</td>
</tr>
<tr>
<td>Monthly housing expense without a mortgage (dollars)</td>
<td>276</td>
<td>(X)</td>
<td>295</td>
</tr>
</tbody>
</table>

(X): Not applicable

Source: Census 2000, US Census Bureau, Summary File 1 (SF 1) and Summary File 3 (SF 3)

### Table 3.14-12
**Business Establishments by Industry in River Glen Opportunity Area**

<table>
<thead>
<tr>
<th>Industry Code Description</th>
<th>Total Establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>2,533</td>
</tr>
<tr>
<td>Mining</td>
<td>1</td>
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<tr>
<td>Utilities</td>
<td>2</td>
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<tr>
<td>Forestry, fishing, hunting, and agriculture</td>
<td>3</td>
</tr>
<tr>
<td>Unclassified establishments</td>
<td>14</td>
</tr>
</tbody>
</table>
### Table 3.14-12
Business Establishments by Industry in River Glen Opportunity Area

<table>
<thead>
<tr>
<th>Industry Code Description</th>
<th>Total Establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational services</td>
<td>26</td>
</tr>
<tr>
<td>Management of companies and enterprises</td>
<td>31</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>44</td>
</tr>
<tr>
<td>Arts, entertainment, and recreation</td>
<td>53</td>
</tr>
<tr>
<td>Information</td>
<td>83</td>
</tr>
<tr>
<td>Real estate and rental and leasing</td>
<td>107</td>
</tr>
<tr>
<td>Administration, support, waste management, remediation services</td>
<td>116</td>
</tr>
<tr>
<td>Construction</td>
<td>126</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>154</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>158</td>
</tr>
<tr>
<td>Other services (except public administration)</td>
<td>182</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>207</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>230</td>
</tr>
<tr>
<td>Retail trade</td>
<td>273</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>349</td>
</tr>
<tr>
<td>Professional, scientific, and technical services</td>
<td>374</td>
</tr>
</tbody>
</table>

### Figure 3.14-7
Percent of Total Business Establishments by Industry in River Glen Opportunity Area

![Bar chart showing the percentage of total business establishments by industry](chart.png)
Public Schools
The River Glen Opportunity Area is within the service area of LAUSD District 4 and the GUSD. These two Local School Districts are described in the above section on the River Corridor. No LASUD schools are within the opportunity area. Schools serving the opportunity area are presented in Table 3.14-13.

Table 3.14-13
Schools Serving River Glen Opportunity Area

<table>
<thead>
<tr>
<th>Elementary Schools</th>
<th>Middle Schools</th>
<th>High Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAUSD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GlenFeliz</td>
<td>Irving</td>
<td>Marshall</td>
</tr>
<tr>
<td>GUSD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cerritos</td>
<td>Hoover</td>
<td></td>
</tr>
<tr>
<td>Columbus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edison</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Franklin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jefferson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keppel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lincoln</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Police Protection
The River Glen Opportunity Area is served by the Northeast Community Police Station of LAPD’s Central Bureau. The bureau and station are described in the above section on the River Corridor. The opportunity area is also served by the Glendale Police Department at 131 North Isabel Street, also described in the above section on the River Corridor.

Fire Protection and Emergency Medical Services
Fire Stations 21, 22, and 26 are in the River Glen Opportunity Area ROI. They are on the east side of the river and provide fire prevention and suppression services and emergency medical services. There are no hospitals or medical centers in the River Glen Opportunity Area ROI.

Libraries
The Atwater Village Branch of the Los Angeles Public Library is in the River Glen Opportunity Area ROI. The branch is at 3379 Glendale Boulevard (item 44 on Figure 3.14-6). Branches of the Glendale Public Library within the ROI include the Grandview Branch (1535 Fifth) and the Pacific Park Branch (501 S. Pacific Avenue).

3.14.1.4 Taylor Yard Opportunity Area

Population and Racial Composition
In 2000, zip codes within and adjacent to the Taylor Yard Opportunity Area had a total population of 188,910, 93,617 females (50 percent) and 95,293 males (50 percent). The median age was 31.8 years. Seventeen percent of the population were under 18 years and 9 percent were 65 years and older. For people reporting one race alone, 38 percent were White, 2 percent were Black or African American, 1 percent were American Indian and Alaska Native, 19 percent were Asian, 0 percent were Native Hawaiian and Other Pacific Islander, and 34 percent were some other race. For census population reporting, people of Hispanic
origin may be of any race. In 2004, 62 percent of the people residing in the zip codes associated with the Taylor Yard Opportunity Area were Hispanic.

**Households**

In 2000 the reported household population (that portion of the total population not living in group quarters) associated with the Taylor Yard Opportunity Area zip code zones was 186,752. The average household size was 3.1 people, and the average family size was 3.8 people.

**Housing Characteristics**

In 2000, there were 64,134 housing units within the zip code zones associated with the Taylor Yard Opportunity Area, six percent of which were vacant. The Taylor Yard Opportunity Area zip code zones had 60,559 occupied housing units, 21,074 owner occupied (33 percent) and 39,485 renter occupied (62 percent). The median monthly housing costs for homeowners in these zip code zones were $1,432 and for renters were $261.

**Income and Employment**

In 2000, the median income of households within the zip code zones associated with the Taylor Yard Opportunity Area was $34,459, and 24 percent of individuals were below the poverty level. In 2003, for the employed population 16 years and older, the leading industries in the zip code zones associated with the Taylor Yard Opportunity Area were health care and social assistance (12.37 percent) and retail trade (12.37 percent).

Tables 3.14-14 and 3.14-15 present summary population, housing, employment and income data for the zip code zones associated with the Taylor Yard Opportunity Area. Figure 3.14-8 shows the percentages of business establishments in different industries in the area.

<table>
<thead>
<tr>
<th>Table 3.14-14</th>
<th>Population, Housing, Employment, and Income Summary Data in Taylor Yard Opportunity Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Characteristics</td>
<td>Number</td>
</tr>
<tr>
<td><strong>Total Population</strong></td>
<td>188,910</td>
</tr>
<tr>
<td>Male</td>
<td>95,293</td>
</tr>
<tr>
<td>Female</td>
<td>93,617</td>
</tr>
<tr>
<td>Average median age (years)</td>
<td>31.75</td>
</tr>
<tr>
<td>Under 5 years</td>
<td>14,844</td>
</tr>
<tr>
<td>18 years and over</td>
<td>137,138</td>
</tr>
<tr>
<td>65 years and over</td>
<td>17,552</td>
</tr>
<tr>
<td>One race</td>
<td>179,035</td>
</tr>
<tr>
<td>White</td>
<td>72,173</td>
</tr>
<tr>
<td>Black or African American</td>
<td>4,053</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>2,002</td>
</tr>
<tr>
<td>Asian</td>
<td>36,310</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander</td>
<td>221</td>
</tr>
<tr>
<td>Some other race</td>
<td>64,276</td>
</tr>
<tr>
<td>Two or more races</td>
<td>9,875</td>
</tr>
<tr>
<td>Hispanic or Latino (of any race)</td>
<td>117,147</td>
</tr>
</tbody>
</table>
### Table 3.14-14
Population, Housing, Employment, and Income Summary Data in Taylor Yard Opportunity Area

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
<th>Percent</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Household population</strong></td>
<td>186,752</td>
<td>0.99</td>
<td>0.97</td>
</tr>
<tr>
<td><strong>Group quarters population</strong></td>
<td>2,158</td>
<td>0.01</td>
<td>0.03</td>
</tr>
<tr>
<td><strong>Average household size</strong></td>
<td>3.1</td>
<td>(X)</td>
<td>2.6</td>
</tr>
<tr>
<td><strong>Average family size</strong></td>
<td>3.8</td>
<td>(X)</td>
<td>3.1</td>
</tr>
<tr>
<td><strong>Total housing units</strong></td>
<td>64,134</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Occupied housing units</strong></td>
<td>60,559</td>
<td>0.94</td>
<td>0.91</td>
</tr>
<tr>
<td><strong>Owner-occupied housing units</strong></td>
<td>21,074</td>
<td>0.33</td>
<td>0.66</td>
</tr>
<tr>
<td><strong>Renter-occupied housing units</strong></td>
<td>39,485</td>
<td>0.62</td>
<td>0.34</td>
</tr>
<tr>
<td><strong>Vacant housing units</strong></td>
<td>3,575</td>
<td>0.06</td>
<td>0.09</td>
</tr>
<tr>
<td><strong>Social Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Population 25 years and over</strong></td>
<td>117,344</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>High school graduate or higher</strong></td>
<td>65,279</td>
<td>0.56</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Bachelor’s degree or higher</strong></td>
<td>24,017</td>
<td>0.20</td>
<td>0.24</td>
</tr>
<tr>
<td><strong>Civilian veterans (civilian population 18 years and over)</strong></td>
<td>6,158</td>
<td>0.05</td>
<td>0.13</td>
</tr>
<tr>
<td><strong>Disability status (population 5 years and over)</strong></td>
<td>39,434</td>
<td>0.21</td>
<td>0.19</td>
</tr>
<tr>
<td><strong>Foreign born</strong></td>
<td>95,128</td>
<td>0.50</td>
<td>0.11</td>
</tr>
<tr>
<td><strong>Male, now married, except separated (population 15 years and over)</strong></td>
<td>32,876</td>
<td>0.46</td>
<td>0.57</td>
</tr>
<tr>
<td><strong>Female, now married, except separated (population 15 years and over)</strong></td>
<td>31,785</td>
<td>0.44</td>
<td>0.52</td>
</tr>
<tr>
<td><strong>Speak a language other than English at home (population 5 years and over)</strong></td>
<td>131,466</td>
<td>0.76</td>
<td>0.18</td>
</tr>
<tr>
<td><strong>Economic Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>In labor force (population 16 years and over)</strong></td>
<td>83,525</td>
<td>0.59</td>
<td>0.64</td>
</tr>
<tr>
<td><strong>Average mean travel time to work in minutes (workers 16 years and older)</strong></td>
<td>29</td>
<td>(X)</td>
<td>25.5</td>
</tr>
<tr>
<td><strong>Average median household income in 1999 (dollars)</strong></td>
<td>34,459</td>
<td>(X)</td>
<td>41,994</td>
</tr>
<tr>
<td><strong>Average median family income in 1999 (dollars)</strong></td>
<td>35,322</td>
<td>(X)</td>
<td>50,046</td>
</tr>
<tr>
<td><strong>Per capita income in 1999 (dollars)</strong></td>
<td>16,862</td>
<td>(X)</td>
<td>21,587</td>
</tr>
<tr>
<td><strong>Families below poverty level</strong></td>
<td>8,755</td>
<td>0.25</td>
<td>0.09</td>
</tr>
<tr>
<td><strong>Individuals below poverty level</strong></td>
<td>45,524</td>
<td>0.24</td>
<td>0.12</td>
</tr>
<tr>
<td><strong>Housing Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Single-family owner-occupied homes</strong></td>
<td>18,219</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Median value (dollars)</strong></td>
<td>198,075</td>
<td>(X)</td>
<td>119,600</td>
</tr>
<tr>
<td><strong>Monthly housing expense with a mortgage (dollars)</strong></td>
<td>1,432</td>
<td>(X)</td>
<td>1,088</td>
</tr>
<tr>
<td><strong>Monthly housing expense without a mortgaged (dollars)</strong></td>
<td>261</td>
<td>(X)</td>
<td>295</td>
</tr>
</tbody>
</table>

(X): Not applicable

Source: US Census Bureau 2000, Summary File 1 (SF 1) and Summary File 3 (SF 3)
### Table 3.14-15
Business Establishments by Industry in Taylor Yard Opportunity Area

<table>
<thead>
<tr>
<th>Industry Code Description</th>
<th>Total Establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>1,358</td>
</tr>
<tr>
<td>Utilities</td>
<td>1</td>
</tr>
<tr>
<td>Forestry, fishing, hunting, and agriculture</td>
<td>3</td>
</tr>
<tr>
<td>Management of companies and enterprises</td>
<td>7</td>
</tr>
<tr>
<td>Unclassified establishments</td>
<td>10</td>
</tr>
<tr>
<td>Educational services</td>
<td>13</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>33</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>39</td>
</tr>
<tr>
<td>Real estate and rental and leasing</td>
<td>53</td>
</tr>
<tr>
<td>Arts, entertainment, and recreation</td>
<td>57</td>
</tr>
<tr>
<td>Information</td>
<td>59</td>
</tr>
<tr>
<td>Administration, support, waste management, remediation services</td>
<td>60</td>
</tr>
<tr>
<td>Construction</td>
<td>73</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>74</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>129</td>
</tr>
<tr>
<td>Professional, scientific, and technical services</td>
<td>134</td>
</tr>
<tr>
<td>Other services (except public administration)</td>
<td>136</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>141</td>
</tr>
<tr>
<td>Retail trade</td>
<td>168</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>168</td>
</tr>
</tbody>
</table>
Public Schools
The Taylor Yard Opportunity Area is within Local School District 4 of the LAUSD. This Local School District is described in the above section on the River Corridor. Schools within the opportunity area include Glassell Park Elementary School, Allesandro Elementary, Dorris Place Elementary, and Aragon Elementary. Schools serving this opportunity area and their capacities are presented in Table 3.14-16.

<table>
<thead>
<tr>
<th>Schools Serving Taylor Yard Opportunity Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Elementary Schools</strong></td>
</tr>
<tr>
<td>Name</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Arwater</td>
</tr>
<tr>
<td>Allesandro</td>
</tr>
<tr>
<td>Fletcher</td>
</tr>
<tr>
<td>Glassell</td>
</tr>
<tr>
<td>Dorris Place</td>
</tr>
<tr>
<td>Aragon</td>
</tr>
<tr>
<td>Loreto</td>
</tr>
<tr>
<td>Albion</td>
</tr>
<tr>
<td>Solano</td>
</tr>
</tbody>
</table>
3.14 Socioeconomics

**Police Protection**
The Taylor Yard Opportunity Area is served by the Northeast Community Police Station of LAPD’s Central Bureau. The bureau and station are described in the above section on the River Corridor.

**Fire Protection and Emergency Medical Services**
There are approximately five fire stations in the Taylor Yard Opportunity Area ROI. They provide fire prevention and suppression services and emergency medical services. Also, the headquarters for the arson unit is in the Taylor Yard Opportunity Area. There are no hospitals or medical centers in the Taylor Yard Opportunity Area ROI.

**Libraries**
Several branches of the Los Angeles Public Library are within the ROI of the Taylor Yard Opportunity Area, as follows:

- Edendale—2011 West Sunset Boulevard;
- Echo Park—1410 West Temple Street;
- Chinatown—639 North Hill Street; and
- Cypress Park—1150 Cypress Avenue.

3.14.1.5 Chinatown-Cornfields Opportunity Area

**Population and Racial Composition**
In 2000, zip codes within and adjacent to the Chinatown-Cornfields Opportunity Area had a total population of 68,986, 31,241 females (45 percent) and 37,745 males (55 percent). The median age was 32 years. Twelve percent of the population were under 18 years and 11 percent were 65 years and older. For people reporting one race alone, 25 percent were White, 8 percent were Black or African American, 1 percent were American Indian and Alaska Native, 31 percent were Asian, 0 percent were Native Hawaiian and Other Pacific Islander, and 31 percent were some other race. For census population reporting, people of Hispanic origin may be of any race. In 2004, 52 percent of the people residing in the zip codes associated with the Chinatown-Cornfields Opportunity Area were Hispanic.

**Households**
In 2000, the reported household population (that portion of the total population not living in group quarters) associated with the Chinatown-Cornfields Opportunity Area zip code zones was 56,139. The average household size was three people. The average family size was 3.7 people.

**Housing Characteristics**
In 2000, there were 19,214 housing units within the zip code zones associated with the Chinatown-Cornfields Opportunity Area, six percent of which were vacant. The Chinatown-Cornfields Opportunity Area zip code zones had 18,119 occupied housing units, 3,990 (21 percent) owner occupied and 14,129 (74 percent) renter occupied. The median monthly housing costs for homeowners in these zip code zones were $1,237 and for renters were $241.
Income and Employment

In 2000, the median income of households within the zip code zones associated with the Chinatown-Cornfields Opportunity Area was $22,726 and 26 percent of individuals were below the poverty level. In 2003, for the employed population 16 years and older, the leading industries in the zip code zones associated with the Chinatown-Cornfields Opportunity Area were retail trade (15.42 percent) and accommodation and food services (14.09 percent).

Tables 3.14-17 and 3.14-18 present summary population, housing, employment, and income data for the zip code zones associated with the Chinatown-Cornfields Opportunity Area. Figure 3.14-9 shows the percentages of business establishments in different industries in the area.

Table 3.14-17
Population, Housing, Employment, and Income Summary Data in Chinatown-Cornfields Opportunity Area

<table>
<thead>
<tr>
<th>General Characteristics</th>
<th>Number</th>
<th>Percent</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population</td>
<td>68,986</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>37,745</td>
<td>0.55</td>
<td>0.49</td>
</tr>
<tr>
<td>Female</td>
<td>31,241</td>
<td>0.45</td>
<td>0.51</td>
</tr>
<tr>
<td>Average median age (years)</td>
<td>32</td>
<td>(X)</td>
<td>35.30</td>
</tr>
<tr>
<td>Under 5 years</td>
<td>4,427</td>
<td>0.06</td>
<td>0.07</td>
</tr>
<tr>
<td>18 years and over</td>
<td>53,161</td>
<td>0.77</td>
<td>0.74</td>
</tr>
<tr>
<td>65 years and over</td>
<td>7,498</td>
<td>0.11</td>
<td>0.12</td>
</tr>
<tr>
<td>One race</td>
<td>66,680</td>
<td>0.97</td>
<td>0.98</td>
</tr>
<tr>
<td>White</td>
<td>17,317</td>
<td>0.25</td>
<td>0.75</td>
</tr>
<tr>
<td>Black or African American</td>
<td>5,336</td>
<td>0.08</td>
<td>0.12</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>599</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Asian</td>
<td>21,677</td>
<td>0.31</td>
<td>0.04</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander</td>
<td>82</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Some other race</td>
<td>21,669</td>
<td>0.31</td>
<td>0.06</td>
</tr>
<tr>
<td>Two or more races</td>
<td>2,306</td>
<td>0.03</td>
<td>0.02</td>
</tr>
<tr>
<td>Hispanic or Latino (of any race)</td>
<td>35,624</td>
<td>0.52</td>
<td>0.13</td>
</tr>
<tr>
<td>Household population</td>
<td>56,139</td>
<td>0.81</td>
<td>0.97</td>
</tr>
<tr>
<td>Group quarters population</td>
<td>12,847</td>
<td>0.19</td>
<td>0.03</td>
</tr>
<tr>
<td>Average household size</td>
<td>3.0</td>
<td>(X)</td>
<td>2.6</td>
</tr>
<tr>
<td>Average family size</td>
<td>3.7</td>
<td>(X)</td>
<td>3.1</td>
</tr>
<tr>
<td>Total housing units</td>
<td>19,214</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupied housing units</td>
<td>18,119</td>
<td>0.94</td>
<td>0.91</td>
</tr>
<tr>
<td>Owner-occupied housing units</td>
<td>3,990</td>
<td>0.21</td>
<td>0.66</td>
</tr>
<tr>
<td>Renter-occupied housing units</td>
<td>14,129</td>
<td>0.74</td>
<td>0.34</td>
</tr>
<tr>
<td>Vacant housing units</td>
<td>1,095</td>
<td>0.06</td>
<td>0.09</td>
</tr>
</tbody>
</table>

Social Characteristics

<table>
<thead>
<tr>
<th>Number</th>
<th>Percent</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>44,366</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19,998</td>
<td>0.45</td>
<td>0.80</td>
</tr>
<tr>
<td>4,498</td>
<td>0.10</td>
<td>0.24</td>
</tr>
</tbody>
</table>
Table 3.14-17
Population, Housing, Employment, and Income Summary Data in Chinatown-Cornfields Opportunity Area

<table>
<thead>
<tr>
<th>Economic Characteristics</th>
<th>Number</th>
<th>Percent</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>In labor force (population 16 years and over)</td>
<td>21,603</td>
<td>0.39</td>
<td>0.64</td>
</tr>
<tr>
<td>Average mean travel time to work in minutes (workers 16 years and older)</td>
<td>27</td>
<td>(X)</td>
<td>25.50</td>
</tr>
<tr>
<td>Average median household income in 1999 (dollars)</td>
<td>22,726</td>
<td>(X)</td>
<td>41,994</td>
</tr>
<tr>
<td>Average median family income in 1999 (dollars)</td>
<td>24,620</td>
<td>(X)</td>
<td>50,046</td>
</tr>
<tr>
<td>Per capita income in 1999 (dollars)</td>
<td>14,331</td>
<td>(X)</td>
<td>21,587</td>
</tr>
<tr>
<td>Families below poverty level</td>
<td>3,391</td>
<td>0.28</td>
<td>0.09</td>
</tr>
<tr>
<td>Individuals below poverty level</td>
<td>17,724</td>
<td>0.26</td>
<td>0.12</td>
</tr>
</tbody>
</table>

Table 3.14-18
Business Establishments by Industry in Chinatown-Cornfields Opportunity Area

<table>
<thead>
<tr>
<th>Industry Code Description</th>
<th>Total Establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>1</td>
</tr>
<tr>
<td>Forestry, fishing, hunting, and agriculture</td>
<td>2</td>
</tr>
<tr>
<td>Utilities</td>
<td>2</td>
</tr>
<tr>
<td>Unclassified establishments</td>
<td>7</td>
</tr>
<tr>
<td>Management of companies and enterprises</td>
<td>11</td>
</tr>
<tr>
<td>Educational services</td>
<td>17</td>
</tr>
<tr>
<td>Arts, entertainment and recreation</td>
<td>22</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>26</td>
</tr>
<tr>
<td>Construction</td>
<td>28</td>
</tr>
<tr>
<td>Information</td>
<td>43</td>
</tr>
<tr>
<td>Administration, support, waste management, remediation services</td>
<td>64</td>
</tr>
<tr>
<td>Real estate and rental and leasing</td>
<td>75</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>77</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>141</td>
</tr>
<tr>
<td>Professional, scientific, and technical services</td>
<td>162</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>166</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>185</td>
</tr>
<tr>
<td>Other services (except public administration)</td>
<td>237</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>253</td>
</tr>
<tr>
<td>Retail trade</td>
<td>277</td>
</tr>
</tbody>
</table>
Public Schools
The Chinatown-Cornfields Opportunity Area is within Local School District 5 of the LAUSD. This Local School District is described in the above section on the River Corridor. Schools serving this opportunity area and their capacities are presented in Table 3.14-19.

Table 3.14-19
Schools Serving Chinatown-Cornfields Opportunity Area

<table>
<thead>
<tr>
<th>Elementary Schools</th>
<th>Name</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldion</td>
<td>670</td>
<td></td>
</tr>
<tr>
<td>Solano</td>
<td>277</td>
<td></td>
</tr>
<tr>
<td>Ann</td>
<td>395</td>
<td></td>
</tr>
<tr>
<td>Casteler</td>
<td>1,111</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Middle Schools</th>
<th>Name</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nightingale</td>
<td>1,920</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High Schools</th>
<th>Name</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belmont</td>
<td>4,814</td>
<td></td>
</tr>
<tr>
<td>Lincoln</td>
<td>2,727</td>
<td></td>
</tr>
</tbody>
</table>

Police Protection
The Chinatown-Cornfields Opportunity Area is served by the Hollenbeck and Central Community Police Stations of LAPD’s Central Bureau. The bureau and station are described in the above section on the River Corridor.
**Fire Protection and Emergency Medical Services**
There are approximately five fire stations in the Chinatown-Cornfields Opportunity Area ROI. They provide fire prevention and suppression services and emergency medical services. Also, fire headquarters is in the Chinatown-Cornfields Opportunity Area ROI. There are approximately two hospitals and medical centers in the Chinatown-Cornfields Opportunity Area ROI.

**Libraries**
The Chinatown, Lincoln Heights, and Little Tokyo Branches of the Los Angeles Public Library are in the River Glen Opportunity Area ROI. The Chinatown Branch is located at 639 North Hill Street, the Lincoln Heights Branch is located at 2530 Workman Street, and the Little Tokyo Branch is located at 203 South Los Angeles Street.

**3.14.1.6 Downtown Industrial Opportunity Area**

**Population and Racial Composition**
In 2000, zip codes within and adjacent to the Downtown Industrial Opportunity Area had a total population of 140,193, 63,783 females (45 percent) and 76,410 males (55 percent). The median age was 34 years. Nineteen percent of the population were under 18 years and 9 percent were 65 years and older. For people reporting one race alone, 32 percent were White, 7 percent were Black or African American, 1 percent were American Indian and Alaska Native, 11 percent were Asian, 0 percent were Native Hawaiian and Other Pacific Islander, and 44 percent were some other race. For census population reporting, people of Hispanic origin may be of any race. In 2004, 75 percent of the people residing in the zip codes associated with the Downtown Industrial Opportunity Area were Hispanic.

**Households**
In 2000, the reported household population (that portion of the total population not living in group quarters) associated with the Downtown Industrial Opportunity Area zip code zones was 119,810. The average household size was 2.7 people; the average family size was 3.6 people.

**Housing Characteristics**
In 2000, there were 38,959 housing units within the zip code zones associated with the Downtown Industrial Opportunity Area, seven percent of which were vacant. The Downtown Industrial Opportunity Area zip codes zones had 36,100 occupied housing units, 6,374 (16 percent) owner occupied and 29,726 (76 percent) renter occupied. The median monthly housing costs for homeowners in these zip code zones were $1,209 and for renters $139 owners.

**Income and Employment**
In 2000, the median income of households within the zip code zones associated with the Downtown Industrial Opportunity Area was $18,275 and 32 percent of individuals were below the poverty level. In 2003, for the employed population 16 years and older, the leading industries in the zip code zones associated with the Downtown Industrial Opportunity Area were wholesale trade (30.25 percent) and manufacturing (17.26 percent).
Tables 3.14-20 and 3.14-21 present summary population, housing, employment, and income data for the zip code zones associated with the Downtown Industrial Opportunity Area. Figure 3.14-10 shows the percentages of business establishments in different industries in the area.

### Table 3.14-20
Population, Housing, Employment, and Income Summary Data in Downtown Industrial Opportunity Area

<table>
<thead>
<tr>
<th>General Characteristics</th>
<th>Number</th>
<th>Percent</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population</td>
<td>140,193</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>76,410</td>
<td>0.55</td>
<td>0.49</td>
</tr>
<tr>
<td>Female</td>
<td>63,783</td>
<td>0.45</td>
<td>0.51</td>
</tr>
<tr>
<td>Average median age (years)</td>
<td>34</td>
<td>(X)</td>
<td>35.30</td>
</tr>
<tr>
<td>Under 5 years</td>
<td>11,215</td>
<td>0.08</td>
<td>0.07</td>
</tr>
<tr>
<td>18 years and over</td>
<td>100,684</td>
<td>0.72</td>
<td>0.74</td>
</tr>
<tr>
<td>65 years and over</td>
<td>12,401</td>
<td>0.09</td>
<td>0.12</td>
</tr>
<tr>
<td>One race</td>
<td>134,615</td>
<td>0.96</td>
<td>0.98</td>
</tr>
<tr>
<td>White</td>
<td>44,862</td>
<td>0.32</td>
<td>0.75</td>
</tr>
<tr>
<td>Black or African American</td>
<td>10,438</td>
<td>0.07</td>
<td>0.12</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>1,409</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Asian</td>
<td>15,507</td>
<td>0.11</td>
<td>0.04</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander</td>
<td>146</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Some other race</td>
<td>62,253</td>
<td>0.44</td>
<td>0.06</td>
</tr>
<tr>
<td>Two or more races</td>
<td>5,578</td>
<td>0.04</td>
<td>0.02</td>
</tr>
<tr>
<td>Hispanic or Latino (of any race)</td>
<td>105,038</td>
<td>0.75</td>
<td>0.13</td>
</tr>
</tbody>
</table>

| Household population    | 119,810| 0.85    | 0.97|
| Group quarters population| 20,383 | 0.15    | 0.03|
| Average household size   | 2.7     | (X)     | 2.6 |
| Average family size      | 3.6     | (X)     | 3.1 |
| Total housing units      | 38,959  |         |    |
| Occupied housing units   | 36,100  | .93     | .91 |
| Owner-occupied housing units | 6,374 | 0.16 | 0.66|
| Renter-occupied housing units | 29,726 | 0.76 | 0.34|
| Vacant housing units     | 2,859   | 0.07    | 0.09|

<table>
<thead>
<tr>
<th>Social Characteristics</th>
<th>Number</th>
<th>Percent</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population 25 years and over</td>
<td>83,350</td>
<td>0.61</td>
<td></td>
</tr>
<tr>
<td>High school graduate or higher</td>
<td>33,124</td>
<td>0.40</td>
<td>0.80</td>
</tr>
<tr>
<td>Bachelor's degree or higher</td>
<td>6,499</td>
<td>0.08</td>
<td>0.24</td>
</tr>
<tr>
<td>Civilian veterans (civilian population 18 years and over)</td>
<td>4,265</td>
<td>0.04</td>
<td>0.13</td>
</tr>
<tr>
<td>Disability status (population 5 years and over)</td>
<td>28,839</td>
<td>0.22</td>
<td>0.19</td>
</tr>
<tr>
<td>Foreign born</td>
<td>68,666</td>
<td>0.49</td>
<td>0.11</td>
</tr>
<tr>
<td>Male, now married, except separated (population 15 years and over)</td>
<td>23,770</td>
<td>0.40</td>
<td>0.57</td>
</tr>
<tr>
<td>Female, now married, except separated (population 15 years and over)</td>
<td>21,436</td>
<td>0.45</td>
<td>0.52</td>
</tr>
<tr>
<td>Speak a language other than English at home (population 5 years and over)</td>
<td>100,033</td>
<td>0.78</td>
<td>0.18</td>
</tr>
</tbody>
</table>
### Table 3.14-20
Population, Housing, Employment, and Income Summary Data in Downtown Industrial Opportunity Area

<table>
<thead>
<tr>
<th>Economic Characteristics</th>
<th>Number</th>
<th>Percent</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>In labor force (population 16 years and over)</td>
<td>46,694</td>
<td>0.45</td>
<td>0.64</td>
</tr>
<tr>
<td>Average mean travel time to work in minutes (workers 16 years and older)</td>
<td>29 (X)</td>
<td>25.50</td>
<td></td>
</tr>
<tr>
<td>Average median household income in 1999 (dollars)</td>
<td>18,275</td>
<td>(X)</td>
<td>41,994</td>
</tr>
<tr>
<td>Average median family income in 1999 (dollars)</td>
<td>24,147</td>
<td>(X)</td>
<td>50,046</td>
</tr>
<tr>
<td>Per capita income in 1999 (dollars)</td>
<td>11,455</td>
<td>(X)</td>
<td>21,587</td>
</tr>
<tr>
<td>Families below poverty level</td>
<td>7,189</td>
<td>0.30</td>
<td>0.09</td>
</tr>
<tr>
<td>Individuals below poverty level</td>
<td>44,784</td>
<td>0.32</td>
<td>0.12</td>
</tr>
</tbody>
</table>

**Housing Characteristics**

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-family owner-occupied homes</td>
<td>5,231</td>
<td></td>
</tr>
<tr>
<td>Median value (dollars)</td>
<td>159,880</td>
<td>(X) 119,600</td>
</tr>
<tr>
<td>Monthly housing expense with a mortgage (dollars)</td>
<td>1,209</td>
<td>(X) 1,088</td>
</tr>
<tr>
<td>Monthly housing expense without a mortgaged (dollars)</td>
<td>139</td>
<td>(X) 295</td>
</tr>
</tbody>
</table>

(X): Not applicable.

Source: US Census Bureau 2000, Summary File 1 (SF 1) and Summary File 3 (SF 3)

### Table 3.14-21
Business Establishments by Industry in Downtown Industrial Opportunity Area

<table>
<thead>
<tr>
<th>Industry Code Description</th>
<th>Total Establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>5,758</td>
</tr>
<tr>
<td>Mining</td>
<td>2</td>
</tr>
<tr>
<td>Forestry, fishing, hunting, and agriculture</td>
<td>3</td>
</tr>
<tr>
<td>Utilities</td>
<td>6</td>
</tr>
<tr>
<td>Unclassified establishments</td>
<td>15</td>
</tr>
<tr>
<td>Management of companies and enterprises</td>
<td>26</td>
</tr>
<tr>
<td>Educational services</td>
<td>29</td>
</tr>
<tr>
<td>Arts, entertainment, and recreation</td>
<td>33</td>
</tr>
<tr>
<td>Information</td>
<td>68</td>
</tr>
<tr>
<td>Construction</td>
<td>70</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>126</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>126</td>
</tr>
<tr>
<td>Administration, support, waste management, remediation services</td>
<td>152</td>
</tr>
<tr>
<td>Real estate and rental and leasing</td>
<td>158</td>
</tr>
<tr>
<td>Professional, scientific, and technical services</td>
<td>282</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>375</td>
</tr>
<tr>
<td>Other services (except public administration)</td>
<td>425</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>436</td>
</tr>
<tr>
<td>Retail trade</td>
<td>690</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>994</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>1,742</td>
</tr>
</tbody>
</table>
### Public Schools

The Downtown Industrial Opportunity Area is within Local School District 5 of the LAUSD. This Local School District is described in the above section on the River Corridor. Schools within the opportunity area include Albion and Ann Elementary Schools. Schools serving this opportunity area and their capacities are presented in Table 3.14-22.

<table>
<thead>
<tr>
<th>Elementary Schools</th>
<th>Middle Schools</th>
<th>High Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name</strong></td>
<td><strong>Capacity</strong></td>
<td><strong>Name</strong></td>
</tr>
<tr>
<td>Utah</td>
<td>1,168</td>
<td></td>
</tr>
<tr>
<td>2nd Street</td>
<td>995</td>
<td>912</td>
</tr>
<tr>
<td>Breed</td>
<td>519</td>
<td></td>
</tr>
<tr>
<td>9th Street</td>
<td>670</td>
<td></td>
</tr>
</tbody>
</table>

| Roosevelt          | 5,363          |              |              | B Street   | 4,814        |

### Table 3.14-22

Schools Serving Downtown Industrial Opportunity Area

- **Wholesale trade**: 30.25%
- **Retail trade**: 17.26%
- **Communication**: 11.98%
- **Utilities**: 7.57%
- **Mining & quarrying**: 7.38%
- **Public schools**: 6.51%
- **Land labor and services**: 4.90%
- **Professional, scientific & technical services**: 2.74%
- **Wholesale & retail trade**: 2.64%
- **Transportation & warehousing**: 2.19%
- **Construction**: 2.19%
- **Arts, entertainment & recreation**: 2.18%
- **Health care and social assistance**: 1.22%
- **Real estate & rental & leasing**: 1.18%
- **Information**: 0.57%
- **Education**: 0.50%
- **Management of companies & enterprises**: 0.45%
- **Unclassified establishments**: 0.26%
- **Utilities**: 0.10%
- **Forestry, fishing, and agriculture**: 0.05%
- **Mining**: 0.03%
Police Protection
The Downtown Industrial Opportunity Area is served by the Hollenbeck and Central Community Police Stations of LAPD’s Central Bureau. The bureau and station are described in the above section on the River Corridor.

Fire Protection and Emergency Medical Services
There are approximately seven fire stations in the Downtown Industrial Opportunity Area ROI. They provide fire prevention and suppression services and emergency medical services. Also, fire headquarters is in the Downtown Industrial Opportunity Area ROI. There are approximately three hospitals and medical centers in the Downtown Industrial Opportunity Area ROI.

Libraries
The Chinatown, Little Tokyo, and Benjamin Franklin Branches of the Los Angeles Public Library are in the Downtown Industrial Opportunity Area ROI. The Chinatown Branch is located at 639 North Hill Street, the Little Tokyo Branch is located at 203 South Los Angeles Street, and the Benjamin Franklin Branch is located at 2200 East First Street.
3.15 ENVIRONMENTAL JUSTICE
This section presents a discussion of environmental justice in the project area in accordance with Executive Order (EO) 12898 and the protection of children from environmental health risks in accordance with EO 13045.

3.15.1 Relevant Executive Orders

3.15.1.1 Executive Order 12898
On February 11, 1994, President Clinton issued EO 12898, entitled Federal Actions to Address Environmental Justice in Minority and Low-Income Populations. This order requires that “each federal agency make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities, on minority populations and low-income populations” (EO 12898, 59 FR 7629 [Section 1-101]).

3.15.1.2 Executive Order 13045
EO 13045, entitled Protection of Children from Environmental Health Risks and Safety Risks (EO 13045, 62 FR 19885), states that each federal agency shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children and ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks. Environmental health risks and safety risks mean risks that are attributable to products or substances that the child is likely to come into contact with or to ingest.

3.15.2 Affected Environment

3.15.2.1 River Corridor
The 2000 racial and ethnic data for the River Corridor and Los Angeles County are illustrated in Table 3.15-1. The Caucasian population was the dominant ethnic group in 2000 in both the River Corridor and Los Angeles County, with 59.8 and 48.7 percent of the population, respectively. The second dominant group in both the River Corridor and Los Angeles County is the Hispanic or Latino population, which is significantly smaller in the River Corridor. The Asian population is the third largest group and is also slightly smaller in the River Corridor.

In 2000, the City of Los Angeles had 5,266 units designated for affordable housing, within the River Corridor. Burbank has approximately 200 rental units in 2006, restricted in perpetuity to very low, low, or moderate-income households (Burbank Housing Corporation 2006). Glendale has approximately 850 units designated as affordable housing. An additional 270 units are in the planning stage (Zovak 2006).

In 2000, approximately 25.6 percent of the state’s population was made up of children (under 18 years old) (US Census Bureau 2000c). The percent of the population of Los Angeles County under 18 years in 2000 was 28 percent. In the River Corridor 21 percent of the population was under 18 in 2000.
Table 3.15-1
Population Percentages for 2000 by Race/Ethnicity of the Census Blocks along the River Corridor

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>River Corridor Population</th>
<th>Los Angeles County Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>246,015</td>
<td>9,519,338</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Percentage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population reported as one race only</td>
<td>233,776</td>
<td>9,049,557</td>
</tr>
<tr>
<td>Caucasian</td>
<td>147,035</td>
<td>4,637,062</td>
</tr>
<tr>
<td>Black or African American</td>
<td>12,533</td>
<td>930,957</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>1,598</td>
<td>76,988</td>
</tr>
<tr>
<td>Asian</td>
<td>24,765</td>
<td>1,137,500</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander</td>
<td>304</td>
<td>27,053</td>
</tr>
<tr>
<td>Some other race</td>
<td>47,541</td>
<td>2,239,997</td>
</tr>
<tr>
<td>Population reported as two or more races</td>
<td>15,602</td>
<td>469,781</td>
</tr>
<tr>
<td>Hispanic or Latino(^1)</td>
<td>87,111</td>
<td>4,242,213</td>
</tr>
</tbody>
</table>

Source: US Census Bureau 2000a, 2000b
\(^1\)Persons of Hispanic origin may be of any race.

3.15.2.2 Opportunity Areas

The 2000 racial and ethnic data for the five opportunity areas are illustrated in Table 3.15-2. In 2000, the Caucasian population was the dominant ethnic group for the River Glen Opportunity Area. In the Canoga Park, Taylor Yard, Chinatown-Cornfields, and Downtown Industrial Opportunity Areas, the Hispanic or Latino population was the dominant ethnic group. The Asian population had a significantly high percentage in the Chinatown-Cornfields Opportunity Area. The Black or African American population had a population percentage ranging between 4.7 and 1.1 in the opportunity areas. The population percentage of American Indians and Alaska Natives ranged between 0.3 and 1.4. The Native Hawaiian and Other Pacific Islander population had a percentage ranging between 0.1 and 0.5 in the opportunity areas.

In 2000, the Canoga Park Opportunity Area, had approximately 585 housing units designated for affordable housing. The River Glen, Taylor Yard, Chinatown-Cornfields, and Downtown Industrial Opportunity Areas had 23, 24, 452, and 957 affordable housing units, respectively (Burbank Housing Corporation 2006).

In the Canoga Park Opportunity Area, approximately 29 percent of the total population was under 18 years in 2000. The River Glen, Taylor Yard, Chinatown-Cornfields, and Downtown Industrial Opportunity Areas had 23, 28, 32, and 28 percent of population under 18 years, respectively.
### Table 3.15-2
Population Percentages for 2000 by Race/Ethnicity of the Census Blocks for the Five Opportunity Areas

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>13,590</td>
<td>13,969</td>
<td>15,374</td>
<td>3,656</td>
<td>14,968</td>
</tr>
<tr>
<td>One race</td>
<td>12,865</td>
<td>12,118</td>
<td>14,586</td>
<td>3,476</td>
<td>14,306</td>
</tr>
<tr>
<td>Caucasian</td>
<td>(94.7)</td>
<td>(86.7)</td>
<td>(94.9)</td>
<td>(95.1)</td>
<td>(95.6)</td>
</tr>
<tr>
<td>Black or African American</td>
<td>644</td>
<td>173</td>
<td>242</td>
<td>40</td>
<td>396</td>
</tr>
<tr>
<td>American</td>
<td>(4.7)</td>
<td>(1.2)</td>
<td>(1.6)</td>
<td>(1.1)</td>
<td>(2.6)</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>171</td>
<td>43</td>
<td>138</td>
<td>33</td>
<td>208</td>
</tr>
<tr>
<td>Asian</td>
<td>(1.3)</td>
<td>(0.3)</td>
<td>(0.9)</td>
<td>(0.9)</td>
<td>(1.4)</td>
</tr>
<tr>
<td>Asian</td>
<td>(9.7)</td>
<td>(18.5)</td>
<td>(21.3)</td>
<td>(43.0)</td>
<td>(7.0)</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander</td>
<td>25</td>
<td>14</td>
<td>17</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>Some other race</td>
<td>4,348</td>
<td>1,616</td>
<td>5,374</td>
<td>1,142</td>
<td>7,463</td>
</tr>
<tr>
<td>Two or more races</td>
<td>725</td>
<td>1,851</td>
<td>788</td>
<td>180</td>
<td>662</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>8,734</td>
<td>3,176</td>
<td>10,058</td>
<td>1,915</td>
<td>12,524</td>
</tr>
<tr>
<td></td>
<td>(64.3)</td>
<td>(22.7)</td>
<td>(65.4)</td>
<td>(52.4)</td>
<td>(83.7)</td>
</tr>
</tbody>
</table>

Source: US Census Bureau 2000b

1Person of Hispanic origin may be of any race.
3.16 CULTURAL AND PALEONTOLOGICAL RESOURCES

This section is an overview of cultural and paleontological resources that may be present and that are relevant to the implementation of the LARRMP.

3.16.1 General Resource Description

3.16.1.1 Terminology

Cultural resources are locations of human activity, occupation, or use. They include expressions of human culture and history in the physical environment, such as archaeological sites, historic buildings and structures, or other culturally significant places. Cultural resources can also be natural features, plants, and animals or places that are considered to be important or sacred to a culture, subculture, or community. Resources may be important individually or as part of a grouping of complementary resources, such as a historic neighborhood.

Paleontological resources are the fossilized remains of organisms that lived in a region in the geologic past and their accompanying geologic strata. Because most species that have existed on earth are extinct, the fossil record represents the primary source of data on ancient life forms. Paleontological resources are considered finite and nonrenewable. Although paleontological resources are not the product of human culture, they are considered here because under CEQA the broad category of cultural resources encompasses fossils in addition to archaeological sites and the built environment (CEQA Guidelines Appendix G, § V[e]).

3.16.1.2 Cultural Resources Categories

Cultural resources that may be present include three general categories: archaeological resources, historic buildings and structures, and traditional cultural properties. These are discussed below.

Archaeological Resources

Archaeological resources refer to surface or buried material remains, buried structures, or other items used or modified by people. Prehistoric archaeological resources date to the time before the European presence in Los Angeles and can include village or campsites, food remains, and stone tools and tool-making debris. Ethnohistoric or protohistoric archaeological resources are rare in southern California but include evidence of European contact, such as trade beads in a site that otherwise appears to be prehistoric. Historic archaeological sites are those deposits that post date European contact. Examples of historic archaeological sites are structural ruins, trash deposits, agricultural features, water control, and privies. Archaeological sites can have components from multiple time periods and are typically discovered and recorded through a pedestrian survey. This is a method of examining an area for archaeological artifacts and features in which surveyors, spaced at regular intervals, systematically walk over the area being investigated. In urban or other disturbed areas, archival research, selective trenching, and construction monitoring are often the only way to determine archaeological presence or sensitivity.

Historic Buildings and Structures

Historic building and structures are typically identified through archival and library research, followed by field reconnaissance and recordation. Historic buildings and structures are architecturally, historically, or artistically important individual and groups of residential, commercial, industrial, and transportation properties. In the city of Los Angeles there are several types of historic designations:
• Historic-Cultural Monument designation by the city’s Cultural Heritage Commission and approved by the City Council;
• Designation by the Community Redevelopment Agency (CRA) as being of cultural or historical significance within a designated redevelopment area;
• Inclusion by the City Council in an Historic Preservation Overlay Zone (HPOZ);
• Listed or eligible for listing on the California Register of Historical Resources (CRHR);
• California Point of Historical Interest;
• California Historical Landmark; or
• Listed or eligible for listing on the National Register of Historic Places (NRHP).

The meaning and planning requirement of each designation varies, but in general these designations help protect historic resources and support rehabilitation fund requests.

Traditional Cultural Properties
Traditional cultural properties are places associated with the cultural practices or beliefs of a living community. The significance of these places is derived from the role the property plays in a community’s cultural identity, as defined by its beliefs, practices, history, and social institutions. Examples include natural landscape features, plant gathering places, sacred sites, and Native American burial locations. They can also include urban neighborhoods whose structures, objects, and spaces reflect the historically rooted values of a traditional social group.

Identifying any traditional cultural property or sacred site requires direct consultations with potentially affected communities. For Native American communities, there is a consultation protocol that begins when the specific project locations are defined. The California Native American Heritage Commission (NAHC) maintains a confidential list of known and potential locations that may be of concern to contemporary Native American groups. This list is not comprehensive and some resources, such as burial sites, may be discovered during construction. The NAHC also provides planners with a list of tribes and current contacts to help identify Native American traditional cultural properties and to ensure that cultural concerns are taken into account.

3.16.1.3 Cultural Resources Identification Methods
Tetra Tech staff conducted a broad review of publicly accessible literature and other sources to define cultural resource issues relevant to the River Corridor and Opportunity Areas. Limited archival, Internet, and library research was performed to define prior land use within the Opportunity Areas. Further information on historic use was obtained through maps and contacts with City of Los Angeles planning staff. A cultural resource records and literature search was conducted by the staff of the South Central Coastal Information Center (SCCIC) at California State University, Fullerton, in September 2006. The SCCIC is the regional repository for the California Historical Resources Information System (CHRS). The record search included archaeological site records and reports, the California Points of Historical Interest, the California Historical Landmarks (CHL), the CRHR, the NRHP, the California Historical Resources Inventory, and the City of Los Angeles Historic-Cultural Monuments. The record search includes the results only of previous archaeological or historical surveys. No new fieldwork or consultations to identify resources were conducted during this phase.
As the CHRIS is developing, it incorporates legacy data gathered from many sources. Many site and report records are incomplete or have inconsistencies that have not been addressed. For example, locations may be uncertain due to irregularities in the records, such as poor mapping, street name and numbering changes, or lack of an east/west designation. Often a resource has been modified or destroyed, but this information has not been updated. Users of the system are required to provide reports from field projects so that these issues can be resolved for the benefit of future users.

The record search of the River Corridor includes a one-mile zone centered on the river. The discussion of opportunity areas is inclusive of sites and historic buildings in the vicinity of the contemplated revitalization actions. These include the recorded resources within block parcels identified for possible revitalization measures and recorded resources adjacent to or near proposed greenways and other linear improvements as described in Chapter 2. The resources discussed would not necessarily be directly or indirectly impacted, and other unrecorded cultural resources may be present.

As specific LARRMP measures are proposed, additional cultural resource identification efforts would be conducted, appropriate to the proposed measures. A formal Area of Potential Effects for cultural resources would be defined, and required consultations on project effects would be conducted. Identification efforts would likely include additional archaeological and historical surveys, test excavations, construction monitoring, and archival research. Consultations would be conducted with Native American individuals and tribes and other ethnic communities to determine whether there are particular areas where there may be traditional cultural concerns. For federal funded or permitted actions the National Historic Preservation Act Section 106 process would need to be completed in consultation with the California Office of Historic Preservation and other parties.

3.16.1.4 Paleontological Resources Identification Methods

General information on the fossil-bearing formations and recorded vertebrate and invertebrate localities was drawn from existing reports and an Internet search of the Los Angeles County Museum Invertebrate Paleontology database (LADPW & LADWP 2005; Johnson and Filkorn 2004; Natural History Museum of Los Angeles County 1993). Discussion of the opportunity areas includes localities that are nearby and not necessarily those that would be within a proposed project area. In urban settings, significant paleontological resources are typically revealed only through deep excavations and then recovered from the impacted area for further scientific study.

3.16.2 Affected Environment

3.16.2.1 Cultural Resources Setting

The cultural resources setting comprises a brief summary of the human use of the Los Angeles area over time, as determined through archaeological investigations and historic documentation.

Prehistory

Prehistory refers to the time period and cultures that inhabited the Los Angeles Basin before the arrival of Europeans. Archaeological investigations in the Los Angeles region have resulted in two chronologies that are widely cited in the literature for the prehistory of southern California: Wallace (1978) and Warren (1984). These chronologies are general temporal schemes based on the presence, absence, or abundance of certain artifact types and other cultural remains. They are based on limited information and cannot capture the
complexity of human behavior through time. These chronologies are roughly correlated with data on
paleoclimates and other evidence to provide a common framework for discussing human use of the region.
Chronologies that more accurately describe cultural, technological, environmental, and economic change will
probably be developed as more data is analyzed and synthesized.

Archaeological evidence for human occupation of the Americas prior to 12,000 years before present (BP) is
scant at best and remains controversial. Wallace placed the earliest occupations of southern California at
roughly 12,000 BP and Warren at 10,000 BP, based primarily on data coastal sites and desert sites around
Holocene marshes, lakes, and streams. This time was marked by a long period of human adaptation to
environmental changes brought about by the transition from the late Pleistocene to the early Holocene. It is
presumed that as climatic conditions became warmer and drier that there was a shift from nomadic hunting
and scavenging of large game to the use of a wider variety of faunal and floral resources as reflected in artifact
assemblages. As the generally warmer and drier trend continued, archaeological sites reflect a further
diversification in tools and food resources that were used. After 7,500 BP, sites show an increase in milling
tools for processing hard seeds, the use of marine resources, a growth in population, and the trend of longer-
term settlements and nonutilitarian items that are often associated with social stratification.

Changes noted after 5,000 BP are primarily derived from research on coastal sites where overall patterns
remained similar, but the material culture became more elaborate and complex. There is evidence of craft
specialization, increased trade, social elites, and larger and more permanent settlements. This period is also
marked by artifacts, indicating more efficiency in subsistence strategies, including the gathering and
processing of acorns, which could be stored for lean times. After 1,500 BP, small triangular projectile points
found on sites indicate increased reliance on the bow and arrow for hunting. The last centuries before
European contact are also associated with the use of bedrock mortars and milling slicks, mortars and pestles,
steatite (soapstone) ornaments and containers, perforated stones, circular shell fishhooks, bone tools, and
bone and shell ornaments. At the time of contact, the Spanish encountered native populations who were
organized in villages with social elites, well-established trade networks and elaborate mortuary customs.

Ethnohistory
Ethnohistory refers to a description of the native cultures that were encountered by the Europeans using
contemporary documents and oral histories. Although the first recorded contact between Europeans and
native populations in upper California occurred on Santa Catalina Island in 1542, Spanish settlement of the
interior was not attempted for over two hundred years. At that time the Tongva or Gabrieleños occupied the
entire Los Angeles Basin, the coast from Malibu Creek to Aliso Creek, parts of the Santa Monica Mountains,
the San Fernando Valley, the San Gabriel Valley, the San Bernardino Valley, the northern part of the Santa
Ana Mountains, and much of the middle and lower Santa Ana River reaches. In addition, the Tongva
inhabited three of the Channel Islands: Santa Catalina, San Clemente, and San Nicolas. Within this large
territory were more than 50 residential communities with populations that ranged from 50 to 150 individuals.
Each community consisted of one or more lineages that maintained a permanent geographic territory,
including a permanent settlement, a variety of hunting and gathering areas, and ritual sites. There were
common elements to the layout of the villages, with defined areas for different functions. Individual
communities seem to have been somewhat self-governing but retained relationships with other Tongva and
traded extensively with other groups, such as the Cahuilla, Serrano, Luiseño, Chumash, and Mojave.
The Tongva were Takic speakers are linguistically related to Uto-Aztecan groups from the southern Great Basin and interior California desert. There is speculation that they may have migrated to the Los Angeles Basin rather late in prehistory. The Tongva territory is wedged between other native cultures along the coast immediately to the north and south that are of the Hokan language stock. The Tongva appear to have shared many traits with the Chumash to the north, including elaborate material culture, social elites, subsistence practices, and ceremonies. Spanish settlement, the mission system, epidemics from European disease, dispersal, and intermarriage destroyed Tongva villages and culture within one or two generations. There are contemporary Native Americans who identify themselves as Tongva-Gabrieleños, but they are not recognized as a tribe by the federal government.

**History**

The Pueblo of Los Angeles was founded in 1781 as a civilian settlement of eleven families along the west bank of the Los Angeles River near the location of a Tongva village called Yaanga. It was laid out as a walled plaza with adobe structures according to a standard plan that the Spanish required of its New World colonies. An irrigation and public water conveyance system was constructed from the river. The Zanja Madre (mother ditch) fed smaller ditches for irrigating fields.

Ten years prior to the establishment of pueblo, many of the Tongva had been relocated to a mission at San Gabriel to the east. Later, the Franciscans established another mission in San Fernando to the north. As it was for other groups, the attempt to convert native populations and impose Spanish values and ways of life was a disaster for the Tongva. When Mexico became independent from Spain the missions were secularized and given by grant to soldiers and others loyal to Mexico. The United States acquired California in 1848 after the Mexican-American War and the discovery of gold led to an increase of American and European migration, most dramatically in the north. Los Angeles retained much of its Spanish and Mexican influence until the arrival of the railroad in 1876. In the subsequent decades, Southern California experienced exponential growth first in agriculturally based communities and then as a residential and business center. Successive waves of building and rebuilding during the last 100 years are reflected in the diversity of architectural styles present in Los Angeles.

**3.16.2.2 Paleontological Resources Setting**

The potential presence of paleontological resources is associated directly with specific geologic formations, strata, or rock units known to contain the fossilized remains of fauna and flora. Fossil-bearing formations, in which organic materials were buried and solidified over geologic time, are uniformly sedimentary in origin but variable in age, composition, geographic location, and types of fossils they contain. The principal types of vertebrate fossils typically yielded by formations in the Los Angeles area are marine and terrestrial vertebrate fossils and marine invertebrate fossils. Discussion of the paleontological setting is drawn from the *City of Los Angeles, Integrated Resources Plan Draft Environmental Impact Report* (LADPW & LADWP 2005).

**Quaternary Geologic Units**

Quaternary Period deposits generally consist of two components: an upper younger layer from the Holocene (present to about 11,000 years BP) and an underlying older layer from the Pleistocene (about 11,000 years BP to 1.8 million years BP).

The surface of the coastal plain in the downtown area and most of the surface of the San Fernando Valley is characterized primarily by Quaternary alluvium. Because of the much shorter period in which it accumulated,
overlying Holocene alluvium is characteristically shallow, often less than 10 feet below the surface, and thinner than underlying Pleistocene sediments that were deposited over 1.8 million years. Relatively recent in geological age, the thin upper layer of Holocene alluvium therefore lacks much potential to contain fossils. These units are assigned a low paleontological resource sensitivity rating with high potential for containing fossil material.

However, Pleistocene alluvium represents the age and depositional processes necessary for the fossilization of organic materials and, therefore, has a high potential to contain fossil resources. Quaternary nonmarine terrace deposits are entirely late Pleistocene in age and, therefore, also have the potential to contain fossil materials. In the Los Angeles region, Pleistocene sediments were deposited during marine conditions or as a result of terrestrial processes and, therefore, could contain fossils from the general categories previously described. These units are assigned a high paleontological resource sensitivity rating with high potential for containing fossil material.

**Tertiary Geologic Units**

The Pliocene (1.8 to 5 million years old [Ma]), Miocene (5 to 23 Ma), and Oligocene (23 to 33 Ma) also contain significant fossils. In the Los Angeles region, Pliocene, Miocene, and older sediments were deposited during marine conditions or as a result of terrestrial processes and, therefore, might contain fossils from the general categories previously described.

In the Los Angeles Basin, for example, Pliocene marine strata often are represented by the Fernando Formation. Miocene marine strata in much of coastal southern California are correlated with the Puente, Monterey, or Topanga Formations. Nonmarine strata from the Oligocene and Eocene can be correlated with the Sespe Formation. The paleontological resources associated with each of these formations and the sensitivity of the geologic units are briefly described below.

The Fernando Formation was deposited during the Pliocene (about 1.8 to 5 Ma) in a marine environment. It is composed of shale, sandstone, and conglomerate. These deposits are usually marked by turbidities, alternating beds of sand and mud left by underwater slides of material on the continental shelf that are preserved as horizontal layers of sandstone and shale. Fossils typically found in the Fernando Formation range from microorganisms to larger creatures such as sharks, rays, and bony fish. The Fernando Formation has been identified in subsurface contexts in the central Los Angeles downtown area as well as in the Santa Monica-Pacific Palisades area. This unit is assigned a high paleontological resource sensitivity rating with high potential for containing fossil material.

The marine Puente Formation is Late Miocene in age (7 to 12 Ma) and is composed of interbedded siltstone, sandstone, and conglomerate. Exposure of this formation has been recorded in many parts of the central and eastern Los Angeles region. The Puente Formation has produced an extensive collection of marine invertebrates and vertebrates and is assigned a high paleontological resource sensitivity level.

The Monterey Formation is a widespread unit deposited in a marine environment during the Middle to Late Miocene (5 to 17 Ma). The shale, sandstone, and mudstone deposits of the Monterey Formation are highly siliceous, a result of organic deposition (microorganisms, such as diatoms) and inorganic deposition (volcanic ash). Virtually all types of marine fossils occur in the Monterey Formation, which is exposed throughout most
of the IRP service area. Due to the extensive collection of marine vertebrates found in the Monterey Formation, this unit is assigned a high paleontological resource sensitivity level.

The Topanga Formation primarily is a marine unit from the Early to Middle Miocene (11 to 23 Ma). The general lithology of the Topanga Formation consists of up to 2,263 feet (690 meters) of white to tan arkosic fossiliferous sandstone, with interbeds of gray to brown siltstone and conglomerate. A wide range of marine fossils are typically found in the Topanga Formation, including invertebrates, such as foraminifera and bivalves, and vertebrates, such as pinnipeds, whales, dolphins, sharks, bony fish, and turtles. Exposures of the Topanga Formation have been identified in the Santa Monica-Pacific Palisades area. This formation has produced many significant marine invertebrates, vertebrates, and plants and is assigned a high paleontological resource sensitivity level.

The Sespe Formation is nonmarine in origin and is Late Eocene to Early Miocene in age (approximately 40 to 23 Ma). The Sespe Formation was deposited as a result of fluvial action that eroded ancient mountains, which have since vanished from the landscape. The Sespe Formation consists of distinctively reddish earthy sandstone, siltstone, and conglomerate and has been reported to contain terrestrial fossils, such as extinct carnivores, insectivores, rodents, and primates. The Sespe Formation is exposed near the base of the Santa Monica Mountains in the western San Fernando Valley and in the Santa Monica-Pacific Palisades area. This unit is assigned a high paleontological resource sensitivity level throughout southern California.

3.16.2.3 River Corridor

Cultural Resources

As in all arid and semiarid lands, water sources and river systems are centers for settlement and food procurement. Prior to channelization, there were wetlands and marshes associated with the changing course of the free-flowing river. Soils in the floodplain were constantly enriched by sediment deposition. There was an abundant variety of plant and game resources that were available to native populations throughout the River Corridor. Tongva oral traditions speak of the importance and use of the rivers in the inland valleys, and named settlements have been documented at locations along nearly every river and ephemeral stream. The Portolà Expedition in 1769 encountered a village of 205 persons at Siutcanga in the Encino area. Farther downstream there was a village called Kaweenga near present day Universal City and the previously mentioned Yaanga in downtown Los Angeles. Missionization, disease, and colonization decimated the organized Tongva villages along the river, but some Native American use of the river continued throughout the nineteenth century.

As described previously, the original Pueblo of Los Angeles was founded along the river by Spanish settlers who constructed a ditch system to irrigate their crops. Land grants were later made to soldiers and other settlers. In the San Fernando Valley, former mission lands, including the River Corridor, were distributed and used primarily for grazing sheep and cattle. This trend continued through Mexican rule and into the time California was annexed into the United States. In the latter half of the nineteenth century, the land grants in the San Fernando Valley were broken up, and large-scale agriculture for the domestic and international markets largely replaced ranching. Rail lines were constructed that paralleled the old river travel routes. Beginning in the 1880s, residential and industrial development in the River Corridor grew rapidly. This growth required a more reliable water supply than the river could provide and greater control of the river to protect life and property. In 1913 Owens River water was brought to Los Angeles via an aqueduct. After
heavy storms that same year, the river flooded nearly twelve thousand acres of land and washed out roads, bridges, and rail facilities. Periodic devastating floods continued until 1959 when the river had been completely contained in a series of concrete channels, flood control reservoirs, and debris basins. Many Los Angeles River containment and flood control facilities are now historic and would need to be evaluated for historic significance before any major alterations are made.

One hundred and eighty-one cultural resource studies are confirmed to have been conducted in the River Corridor. An additional 105 studies may be relevant but are missing confirmation of mapping information. There are 65 records of confirmed prehistoric and historic archaeological sites and 212 records of properties that have been evaluated for historic significance. An additional 196 properties have been evaluated and may be within the river overlay zone but whose location needs further verification. There are 59 properties that are eligible for listing on the CRHR, 57 on the NRHP, and 29 are already designated as City of Los Angeles Historic-Cultural Monuments. There are no recorded California Points of Historical Interest resources within an HPOZ or resources considered historical by the CRA in the river overlay zone or opportunity areas. Consultation was not conducted at this programmatic phase to ascertain if any traditional cultural properties are present.

**Paleontological Resources**

Quaternary deposits are found throughout Los Angeles Basin and the valleys that form the River Corridor. Holocene gravels of low sensitivity for all fossils are expected near the surface. However, Pleistocene alluvial sediments are often found below these gravels in shallow contexts and are highly sensitive for vertebrate and invertebrate fossils. The corridor passes through Miocene marine strata, where Puente, Monterey, or Topanga Formations may be encountered. These formations have high paleontological resource sensitivity as well.

**3.16.2.4 Canoga Park Opportunity Area**

**Cultural Resources**

The area now known as Canoga Park was part of land granted to the San Fernando Mission and later acquired by Andrés Pico. He conveyed the land to his brother Pío, who sold it in 1869 to a group of Anglo investors, the San Fernando Farm Homestead Association. Originally the land was primarily used to graze sheep and cattle but soon was given over to raising wheat on a massive scale. In the 1880s the first of several real estate booms led to establishment of many new towns in the San Fernando Valley. The construction of an aqueduct to bring water from the Owens River to the city of Los Angeles furthered the growth of the San Fernando Valley and the annexation of valley towns into the city. The town of Owensmouth, a direct reference to the aqueduct, was founded in 1912, centered along Sherman Way. In 1917, the City of Los Angeles annexed Owensmouth, and in 1930 the community was renamed Canoga Park. Canoga Park High School has been located where the Calabasas Arroyo and Bell Creek converge since 1916 (Robinson 1993).

Four cultural resource studies are confirmed to have been conducted in the vicinity of the Opportunity Area. No archaeological sites have been recorded and fifteen properties have been evaluated for historic significance. There are no recorded California Points of Historical Interest, California Historical Landmarks, resources within an HPOZ, or resources considered historical by the CRA. There is one property, the Canoga Park High School Auditorium that is eligible for the CHL and the NRHP. There are two designated City of Los Angeles Historic-Cultural Monuments. Consultation was not conducted in this phase to ascertain if any
traditional cultural properties are present. Table 3.16-1 lists the cultural resources confirmed to be in the vicinity of the Canoga Park High School Opportunity Area that are designated under a federal, state, or local historic preservation law.

### Table 3.16-1

*Designated Canoga Park Opportunity Area Cultural Resources*

<table>
<thead>
<tr>
<th>Resource Designation</th>
<th>Resource Type</th>
<th>Listing or Status(^1)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canoga Park High School Auditorium</td>
<td>Historic building</td>
<td>SHL, NRHP</td>
<td>Completed in 1939</td>
</tr>
<tr>
<td>Owensmouth Railroad Station</td>
<td>Historic building</td>
<td>LAHCM</td>
<td>1915—Spanish revival (recently destroyed by fire)</td>
</tr>
<tr>
<td>Canoga Park Branch Library</td>
<td>Historic building</td>
<td>LAHCM</td>
<td>1950—Intact example of mid-century modern architecture</td>
</tr>
</tbody>
</table>

\(^1\)NRHP = National Register of Historic Places - Eligible; CRHR = California Register of Historical Resources – Eligible; CHL = California Historic Landmark; LAHCM = Los Angeles Historical-Cultural Monument

### Paleontological Resources

Younger alluvium and Pleistocene nonmarine alluvium are the dominant formations in the vicinity of the Opportunity Area. Exposures of the Monterey and Puente Formations are also within the surrounding area. The Pleistocene alluvium and Puente and Monterey Formations have a high potential to contain fossil resources and have high paleontological resource sensitivity. This area, therefore, has a potential to contain fossil resources when Pleistocene Alluvium and older sediments are excavated.

The LACM reported three fossil localities in the general vicinity (LACM 1213, 5125, and 6021). LACM 1213 yielded horse (*Equus occidentalis*) and ground sloth (*Paramylodon*). LACM 5125 yielded lanternfish (*Myctophidea*) and an extinct leatherback turtle (*Psephorus*) were found at LACM 6021.

### 3.16.2.5 River Glen Opportunity Area

#### Cultural Resources

The river in the vicinity of the opportunity area marks the border between two pre-1800 Spanish land grants: Rancho Los Feliz on the west side and Rancho San Rafael on the east. Jose Vicente Feliz and José María Verdugo were military officers who had served Spain in the establishment of the colony in Alta California. A large portion of Rancho Los Feliz has remained intact and was donated to the city of Los Angeles in 1896 by Griffith W. Griffith and is now Griffith Park. Rancho San Rafael was broken up in 1869 and largely incorporates the city of Glendale.

The Opportunity Area is located where runoff from the Verdugo Wash joined the river. Los Angeles purchased surface water rights in this reach from Griffith in 1885, allowing the city to better control and to use this resource. The opportunity area also includes the former location of the Griffith Park Aerodrome, an airport that operated from 1912 to 1939. Much of the early industrial development on the east side of the river was related to aeronautical engineering and manufacture. The Glendale Airport (later the Grand Central Airport) operated from 1923 to 1959 just north of the Opportunity Area. Grand Central was the first official terminal for the Los Angeles area. Freeway construction and river channelization separated the river from the park in the mid-twentieth century.
Five cultural resource studies are confirmed to have been conducted in the vicinity of the Opportunity Area. No archaeological sites have been recorded, and twenty-one properties have been evaluated for historic significance. There are no confirmed cultural resources in the vicinity of the River Glen Opportunity Area, which are designated under a federal, state, or local historic preservation law. There are many potentially historic buildings and structures in this opportunity area, including the San Fernando Road Bridge, built in 1939 over the Verdugo Wash. Consultation was not conducted in this phase to ascertain if any traditional cultural properties are present.

Paleontological Resources

The Opportunity Area is in an area where surface geology includes younger alluvium, Pleistocene nonmarine alluvium, and the Puente, Monterey, and Fernando Formations. The Los Angeles River drainage consists chiefly of Holocene younger gravels. The Pleistocene nonmarine alluvium and Puente, Monterey, and Fernando Formations have high paleontological resources sensitivity.

The LACM reported that fossil locality LACM 1880 northeast of the Los Angeles River in this area yielded bony fish remains of hatchetfish (*Argyropelecus bullockii*), bristlemouth (*Cyclothone*), herring (*Etringus*), rockfish (*Scorpaenidae*), extinct deep sea fish (*Chauliodus*), slickheads (*Alepocephalidae*), cod (*Eclipes*), and croaker (*Lompoquia*) from the Puente Formation at unrecorded depths.

### 3.16.2.6 Taylor Yard Opportunity Area

#### Cultural Resources

The Taylor Yard Opportunity Area is on the nexus of three of the earliest Spanish land grants in California. The River Corridor in this area was always a natural transportation route. What became San Fernando Road was part of El Camino Real linking Los Angeles with Mission San Fernando and the northern coastal settlements through the Cahuenga Pass and to the San Joaquin and Central Valleys via the Tejon Pass. Later, the Butterfield Overland Mail line passed through the opportunity zone. With the arrival of the railroad in 1876 and a second transcontinental line in 1886, the old ranchos were broken up and new communities were laid out to accommodate the influx of people from the east. The ethnically diverse neighborhoods in the opportunity area continue to accommodate both recent arrival and long-time residents.

Taylor Yard itself is the site of a former freight rail switching yard and maintenance facility whose origins date back to 1888. For most of that time it was the major rail hub in Los Angeles and supported the development of industrial properties and working class residential communities within the Opportunity Area. The completion of a modern freight yard in the city of Colton in 1973 reduced the importance of Taylor Yard as a rail center, but some maintenance operations remain.

Sixteen cultural resource studies are confirmed to have been conducted in the vicinity of the Opportunity Area. Three archaeological sites have been recorded and 53 properties have been evaluated for historical significance. There are three properties eligible for the CRHR and two of these are also eligible for listing on the NRHP. There are four designated City of Los Angeles Historic-Cultural Monuments. The Dorris Place Elementary School Administration Building has been recommended as eligible for the NRHP and CRHR, but there is incomplete documentation for this property. Consultation was not conducted in this phase to
ascertain if any traditional cultural properties are present. Table 3.16-2 lists the cultural resources confirmed to be in the vicinity of the Taylor yard Opportunity area that are designated under a federal, state, or local historic preservation law.

<table>
<thead>
<tr>
<th>Resource Designation</th>
<th>Resource Type</th>
<th>Listing or Status¹</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Navy and Marine Corps Reserve Center, #972</td>
<td>Historic structure, historic association</td>
<td>CHL, CRHR</td>
<td>1938-1941 Art Deco; largest enclosed structure without walls; over 100,000 servicemen processed in this facility.</td>
</tr>
<tr>
<td>Olive Switching Station</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1916 railyard facility</td>
</tr>
<tr>
<td>Richard Henry Dana Branch Library #2502</td>
<td>Historic building</td>
<td>CRHR, NRHP, LACHM</td>
<td>Library</td>
</tr>
<tr>
<td>Glassell Park School</td>
<td>Historic building</td>
<td>LACHM</td>
<td>1923 Spanish Colonial Revival/Art Deco architecture</td>
</tr>
<tr>
<td>Dorris Place Elementary School Administration Building</td>
<td>Historic building</td>
<td>CRHR, NRHP (both pending)</td>
<td>1922 Romanesque Revival architecture</td>
</tr>
<tr>
<td>Fletcher Drive Bridge #322</td>
<td>Historic bridge</td>
<td>LACHM</td>
<td>1927 concrete bridge over the Los Angeles River</td>
</tr>
<tr>
<td>Van de Kamp’s Holland Dutch Bakery # 569</td>
<td>Historic building</td>
<td>LACHM</td>
<td>1930 thematic architecture, 16th Century Dutch Revival</td>
</tr>
</tbody>
</table>

¹CRHR = California Register of Historical Resources – Eligible; NRHP = National Register of Historic Places – Eligible; CHL = California Historic Landmark; LACHM = Los Angeles Historical-Cultural Monument

**Paleontological Resources**

Younger alluvium and Pleistocene nonmarine alluvium are the dominant formations in the vicinity of the Opportunity Area. Exposures of the Monterey and Puente Formations are also within the surrounding area. The Pleistocene alluvium and Puente and Monterey Formations have a high potential to contain fossil resources and have high paleontological resource sensitivity.

Localities LACM 3882, 6934, 7017, and 7507 in the area near I-5 and I-110 produced the holotype or first described specimen of the fossil cetotheriid baleen whale, *Mixocetus elysius*, a second baleen whale skull, bony fish, and a snake mackerel (*Thyrsocles kriegeri*) from the Puente Formation, also at unrecorded depths.

**3.16.2.7 Chinatown-Cornfields Opportunity Area**

**Cultural Resources**

The Chinatown-Cornfields Opportunity Area is centered on the former location of the Southern Pacific River Station and freight yard. The River Station was the first Southern Pacific facility in Los Angeles and site of the first transcontinental railroad station and depot in the region from 1876 through 1888. It served as the
center of railroad freight operations for the Southern Pacific, and thus all of Los Angeles in the first quarter
of the twentieth century and continued to serve as a freight yard until its closing in 1992. The railroad facility
included a two-story depot and hotel, a large freight house, round house, turntable, ice house, and
maintenance shops. No standing structures remain, but extensive archaeological resources have been
recorded. The Opportunity Area is immediately north of the site where Los Angeles was founded. Some of
the earliest recorded agriculture (1805) in Los Angeles was conducted in the river floodplain in this area, and
remnants of the original zanja madre have also been found. Much of the early industrial development of Los
Angeles occurred here, and the Opportunity Area includes parts of some of the original ethnic
neighborhoods in Los Angeles, such as Sonoratown, Solano Canyon, El Pueblo, Old Chinatown, and Lincoln
Heights.

Forty-four cultural resource studies are confirmed to have been conducted in the vicinity of the Opportunity
Area. Nine historic archaeological sites have been recorded and 43 properties have been evaluated for
historical significance. There are 17 properties eligible for the CRHR and 13 properties eligible for the
NRHP. Two properties are formally listed on the NRHP. There are five state historic landmarks and 15
designated City of Los Angeles Historic-Cultural Monuments. One additional bridge is a candidate for NRHP
and Historic-Cultural Monument designations. Consultation was not conducted in this phase to determine
whether or not any traditional cultural properties are present. Table 3.16-3 lists the cultural resources
confirmed to be in the vicinity of the Chinatown-Cornfields Opportunity Area which are designated under a
Federal state or local historic preservation law.

Table 3.16-3
Designated Chinatown-Cornfields Opportunity Area Cultural Resources

<table>
<thead>
<tr>
<th>Resource Designation</th>
<th>Resource Type</th>
<th>Listing or Status(^1)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles Terminal Annex Post Office</td>
<td>Historic building</td>
<td>CRHR, NRHP, LAHCWM</td>
<td>1938 public building</td>
</tr>
<tr>
<td>Buena Vista Viaduct Bridge 53C-545</td>
<td>Historic Bridge</td>
<td>CRHR, NRHP</td>
<td>1910 Beaux Arts Revival</td>
</tr>
<tr>
<td>Main Street Bridge Bridge 53C-1010</td>
<td>Historic Bridge</td>
<td>CRHR, NRHP</td>
<td>1910</td>
</tr>
<tr>
<td>Plaza 19-167017</td>
<td>Historic Los Angeles Plaza and Park</td>
<td>CRHR, NRHP, LACHM</td>
<td>1815</td>
</tr>
<tr>
<td>Los Angeles Plaza Historic District #2310</td>
<td>Historic district, multiple properties</td>
<td>CRHR, NRHP, LAHCWM</td>
<td>1815+</td>
</tr>
<tr>
<td>Vickrey-Brunswig Building 19-171607</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1888</td>
</tr>
<tr>
<td>Plaza House 19-171608</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1883</td>
</tr>
<tr>
<td>Plaza Church 19-173140</td>
<td>Historic building</td>
<td>CRHR, NRHP, CHL, LACHM</td>
<td>1822</td>
</tr>
<tr>
<td>Sepulveda Block 19-167015</td>
<td>Historic buildings</td>
<td>CRHR, NRHP</td>
<td>1883</td>
</tr>
</tbody>
</table>
### Table 3.16-3

#### Designated Chinatown-Cornfields Opportunity Area Cultural Resources

<table>
<thead>
<tr>
<th>Resource Designation</th>
<th>Resource Type</th>
<th>Listing or Status¹</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capitol Mill 19-170957</td>
<td>Historic mill structure</td>
<td>CRHR, NRHP</td>
<td>1855</td>
</tr>
<tr>
<td>Union Station 19-171159</td>
<td>Historic building</td>
<td>NRHP-L, LACHM, CRHR</td>
<td></td>
</tr>
<tr>
<td>Plaza Substation 19-167182</td>
<td>Historic building</td>
<td>NRHP-L, LACHM, CRHR</td>
<td></td>
</tr>
<tr>
<td>Pico House #1013</td>
<td>Historic building</td>
<td>CHL; CRHR</td>
<td>1869, first three-story hotel in Los Angeles</td>
</tr>
<tr>
<td>Merced Theatre #1012</td>
<td>Historic building</td>
<td>CHL, CRHR, LACHM</td>
<td>1870, first theater in Los Angeles</td>
</tr>
<tr>
<td>Portola Trail Campsite #1</td>
<td>Historic place, historic association, no physical remains</td>
<td>CHL, CRHR, LACHM</td>
<td>1769, site where Portola camped and of first mass celebrated in Los Angeles</td>
</tr>
<tr>
<td>Plaza Firehouse #1014</td>
<td>Historic building</td>
<td>CHL, CRHR, LACHM</td>
<td>1884, first firehouse</td>
</tr>
<tr>
<td>Plaza Church Cemetery #26</td>
<td>Historic site</td>
<td>LACHM</td>
<td>1823-1844, cemetery</td>
</tr>
<tr>
<td>North Spring Street Bridge 53C0859</td>
<td>Historic bridge</td>
<td>NRHP, LAHC M - Candidate</td>
<td>1928</td>
</tr>
<tr>
<td>Bernard Street Residence #2448</td>
<td>Historic building</td>
<td>LACHM</td>
<td></td>
</tr>
<tr>
<td>River Station, #82</td>
<td>Historic archaeological sites</td>
<td>LACHM</td>
<td>1875 Site of original train station, rail yard and associated properties</td>
</tr>
<tr>
<td>Bruno Street, Los Angeles-211</td>
<td>Historic street</td>
<td>LACHM</td>
<td>Street paved with original hand-hewn granite blocks</td>
</tr>
<tr>
<td>Albion Cottages and Milagro Market, #442</td>
<td>Historic buildings</td>
<td>LACHM</td>
<td>1870 residences and store</td>
</tr>
</tbody>
</table>

¹CRHR = California Register of Historical Resources – Eligible; NRHP = National Register of Historic Places – Eligible; NRHP – L = National Register of Historic Places – Listed; CHL = California Historic Landmark; LACHM = Los Angeles Historical-Cultural Monument

### Paleontological Resources

Younger alluvium and Pleistocene nonmarine alluvium are the dominant formations in the vicinity of the opportunity area. Exposures of the Monterey and Puente Formations are also within the surrounding area.
The Pleistocene alluvium and Puente and Monterey Formations have a high potential to contain fossil resources and have high paleontological resource sensitivity.

Localities LACM 3882, 6934, 7017, and 7507 in the area near I-5 and I-110 produced the holotype specimen of the fossil cetotheriid baleen whale, *Mixocetus elysius*, a second baleen whale skull, bony fish, and a snake mackerel (*Thyrsus kriegeri*) from the Puente Formation, also at unrecorded depths.

### 3.16.2.8 Downtown Industrial Opportunity Area

**Cultural Resources**

This Opportunity Area includes some of the earliest industrialized and residential areas of the city. On the west side of the river, rail yards and industry have dominated the landscape since the 1880s. Le Grande Railway Station, since demolished, was constructed here in 1893. On the east side of the river, Boyle Heights was developed as an early suburb and has been home to workers ever since. Boyle Heights was the initial point of settlement for many European immigrants. In the 1930s and 1940s, Mexican labor was recruited and eventually succeeded the European immigrants of Boyle Heights. The Opportunity Area includes some of Los Angeles' first public institutions, public buildings, and older homes.

Twenty-three cultural resource studies are confirmed to have been conducted in the vicinity of the Opportunity Area. Nine historic archaeological sites have been recorded and 82 properties have been evaluated for historical significance. There are 25 properties eligible for the CRHR and the NRHP. Two properties are designated as City of Los Angeles Historic-Cultural Monuments. Four additional bridges over the Los Angeles River are candidates for NRHP and Historic-Cultural Monument designations. Consultation was not conducted in this phase to ascertain if any traditional cultural properties are present. Table 3.16-4 lists the cultural resources confirmed to be in the vicinity of the Downtown Industrial Area Opportunity Area that are designated under a federal, state, or local historic preservation law.

<table>
<thead>
<tr>
<th>Resource Designation</th>
<th>Resource Type</th>
<th>Listing or Status¹</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Paseo Inn 19-171553</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1914</td>
</tr>
<tr>
<td>Los Angeles Soap Company 19-167029</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1898</td>
</tr>
<tr>
<td>J. R. Newberry Building</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1900</td>
</tr>
<tr>
<td>James K. Hill and Sons Pickle Works</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1888</td>
</tr>
<tr>
<td>Hollenbeck Masonic Temple</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1923</td>
</tr>
<tr>
<td>Atchison Topeka and Santa Fe Outbound 19-174977</td>
<td>Historic linear resource</td>
<td>CRHR, NRHP</td>
<td>1906</td>
</tr>
<tr>
<td>Hollenbeck Junior High School 19-175249</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1923</td>
</tr>
</tbody>
</table>
### Table 3.16-4
Designated Downtown Industrial Opportunity Area Cultural Resources

<table>
<thead>
<tr>
<th>Resource Designation</th>
<th>Resource Type</th>
<th>Listing or Status¹</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hollenbeck Junior High School Administration</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1936</td>
</tr>
<tr>
<td>Hollenbeck Junior High School East Building</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1936</td>
</tr>
<tr>
<td>Hollenbeck Junior High School Girls Gymnasium</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1923</td>
</tr>
<tr>
<td>Hollenbeck Junior High School West Building</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1936</td>
</tr>
<tr>
<td>Hollenbeck Junior High School Auditorium</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1936</td>
</tr>
<tr>
<td>Hollenbeck Junior High School Home Economics and Cafeteria</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1931</td>
</tr>
<tr>
<td>Hollenbeck Junior High School Industrial Arts Building</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1936</td>
</tr>
<tr>
<td>Francis S. Hutchins Residence</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1894</td>
</tr>
<tr>
<td>International Institute 435 S. Boyle Avenue</td>
<td>Historic building</td>
<td>CRHR, NRHP, LACHM</td>
<td>1931</td>
</tr>
<tr>
<td>Elmer O. Simons Residence</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1906</td>
</tr>
<tr>
<td>Frank L. Parriot Residence</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1904</td>
</tr>
<tr>
<td>Hollenbeck Home for the Aged 19-171807</td>
<td>Historic building</td>
<td>CRHR, NRHP</td>
<td>1895</td>
</tr>
<tr>
<td>Charles Rhodes Residence 19-171813</td>
<td>Historic building</td>
<td>CRHR, NRHP, LACHM</td>
<td>1890</td>
</tr>
<tr>
<td>First Street Bridge 53C1166</td>
<td>Historic bridge</td>
<td>NRHP, LACHM - Candidate</td>
<td>1929</td>
</tr>
</tbody>
</table>
### Table 3.16-4
Designated Downtown Industrial Opportunity Area Cultural Resources

<table>
<thead>
<tr>
<th>Resource Designation</th>
<th>Resource Type</th>
<th>Listing or Status</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fourth Street Bridge</td>
<td>Historic bridge</td>
<td>NRHP, LACHM - Candidate</td>
<td>1931, Gothic Revival details</td>
</tr>
<tr>
<td>53C0044</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sixth Street Viaduct</td>
<td>Historic bridge</td>
<td>NRHP, LACHM - Candidate</td>
<td>1932, Moderne details</td>
</tr>
<tr>
<td>53 0595, 53C1880</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seventh Street Viaduct</td>
<td>Historic bridge</td>
<td>NRHP, LACHM - Candidate</td>
<td>1927</td>
</tr>
<tr>
<td>53C1321</td>
<td></td>
<td></td>
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\(^1\text{NRHP = National Register of Historic Places - Eligible; CRHR = California Register of Historical Resources – Eligible; LAHCM = Los Angeles Historical-Cultural Monument}

**Paleontological Resources**

Younger alluvium and Pleistocene nonmarine alluvium are the dominant formations in the vicinity of the opportunity area. Exposures of the Monterey and Puente Formations are also within the surrounding area. The Pleistocene alluvium and Puente and Monterey Formations have a high potential to contain fossil resources and have high paleontological resource sensitivity.
3.17 **Aesthetic Resources**

This section presents existing conditions for aesthetic resources and evaluates potential impacts from the proposed action. The region of influence for visual resources includes the Los Angeles River, a half-mile on either side of the river, and the five opportunity areas.

### 3.17.1 General Resource Description

The Los Angeles River traverses the Los Angeles Basin, from the San Fernando Valley and eastern Los Angeles County, through Central Los Angeles, and ending at Long Beach on the coast. The river passes through a highly urbanized area of Los Angeles County. Residential neighborhoods, commercial and industrial districts, office buildings, and transportation corridors, such as Interstates 5 and 710 and railways, are visible along the river. Open spaces, where development is limited and vegetation dominates the landscape, are limited.

There is one officially designated state scenic highway and one historic parkway within Los Angeles County, but there are no roadways within the region of influence that are part of California’s Scenic Highway Program (Caltrans 2006).

Light associated with the urban infrastructure illuminates the sky throughout the entire metropolitan area (City of Los Angeles 2005). Most areas throughout are fully developed with street lighting or commercial/industrial lighting.

### 3.17.2 Affected Environment

#### 3.17.2.1 River Corridor

Large portions of the Los Angeles River and many of its tributaries have been placed in cement channels (City of Los Angeles 2005). During most of the year, the cement channels have minimal water flows, various amounts and species of vegetation (including weeds and nonnative species), litter and debris, and, in many locations, graffiti.

Areas are visible within the river where the channel walls are concrete and a “soft bottom” still exists (County of Los Angeles 1996). In the southern reaches, the river is bordered by mixed uses and thus has a varied visual character. Along Valleyheart Drive in the San Fernando Valley, the river meanders and is bordered by large shrubs that provide cool shaded walkways. In contrast, a wide, barren easement borders the Tujunga Wash, and in downtown Los Angeles there is only limited access to an intensely urban and industrial riverfront.

In downtown Los Angeles, a series of Art Deco and Classical Revival style bridges span the river (County of Los Angeles 1996). Other historic buildings and sites add to the unique landscape of the urban environment. Sites listed on and eligible for listing on the National Register of Historic Places, as well as other locally significant cultural landmarks, are further discussed in Section 3.16, Cultural Resources.

Rail lines are found at various locations adjacent to the Los Angeles River. Depending on location, the number of rail lines and the frequency of their use vary. The rail lines that are used infrequently or not at all are more likely to have a neglected appearance, which can diminish the attractiveness of an area.
3.17.2.2 Canoga Park Opportunity Area
Bell Creek and Calabasas Creek meet to form the Los Angeles River in this area, which is highly developed. The primary urban elements visible in the area are Canoga Park High School, Westfield Shopping Plaza, Pratt and Whitney (an airplane engine manufacturer), and Pierce College. Also visible are office buildings, commercial stores, and residential neighborhoods. In this area, the river is concrete lined and linear. Trees next to buildings sparsely line the river where Bell Creek and Calabasas Creek meet. Light and glare in this area is primarily associated with outdoor lighting for buildings. There is outdoor lighting for parking lots and the high school sports field, as well as street lighting.

3.17.2.3 River Glen Opportunity Area
In this area, the Los Angeles River flows eastward and makes a ninety degree turn to flow southward. Here, the Verdugo Wash meets the Los Angeles River. The Verdugo Wash drains the hills just north of Burbank and Glendale. Although the Los Angeles River has a concrete invert (floor) in this area, silt from the Verdugo Wash is deposited in parts of the river and is carried downstream. Tall electrical transmission towers line the edge of the eastern side of the river.

Highway 134 and Interstate 5 also meet in this area. The Los Angeles Zoo, sports fields, and Griffith Park in the Santa Monica Mountains are visible to the west. Also, tall electrical transmission towers line the edge of the western side of the river. Both natural chaparral-covered terrain and landscaped parkland and picnic areas are visible in Griffith Park (LADPR 2006). The park’s elevations range from 384 to 1,625 feet above sea level. With an arid climate, the park’s plant communities vary from coastal sage scrub to oak and walnut woodlands to riparian vegetation with trees in the deep canyons.

In contrast to the vegetation and relatively natural setting of the west side of the Los Angeles River, the east side has only a few trees, and grass lines the edge. Most of the vegetation on the east side is confined to the Verdugo Wash before it empties into the Los Angeles River. The northeastern side is highly urbanized. The primary urban elements visible on the northeast side are DreamWorks SKG Studios, industrial buildings and structures, and a recycling center that line the edge of the river. Residential neighborhoods are beyond the industrial, commercial, and office buildings that line the eastern side of the river.

Light and glare in this area is primarily associated with outdoor lighting for buildings. There is outdoor lighting for parking lots, building security, and the sports field, as well as street lighting. Tall light poles illuminate the multiple sports fields.

3.17.2.4 Taylor Yard Opportunity Area
The Los Angeles River snakes through this relatively flat area. Taylor Yard on the east side of the river was a freight switching rail facility that closed in 1985. Its condition has deteriorated since it was abandoned. Remnants of the rail facility are still visible, including a network of train tracks and the train station. Besides the dilapidated rail facility, a few commercial buildings and warehouses are visible. Tall electrical transmission towers line the edge of the eastern side of the river. Most of the vegetation near the Los Angeles River can be found in the river itself.

Commercial buildings and residential neighborhoods can be seen sandwiched between the river and Interstate 5 and the Santa Monica Mountains to the west. Communities surrounding Taylor Yard are Cypress Park, Glassell Park, Elysian Valley, Atwater Village, Mount Washington, and Lincoln Heights.
Light and glare in this area is primarily associated with outdoor lighting for buildings. There is outdoor lighting for parking lots and building security, as well as street lighting.

### 3.17.2.5 Chinatown-Cornfields Opportunity Area

The Los Angeles River meanders through this area, which is highly urbanized with industrial and commercial buildings and offices on both sides. Tall electrical transmission towers line the edges of both sides of the concrete-enclosed river. Numerous bridges cross the river, especially where Highway 110 and I-5 intersect. Most of the vegetation visible in this area is in Elysian Park in the Santa Monica Mountains to the west. The landscape of the park is similar to that of Griffith Park. Also west of the river is the Los Angeles State Historic Park, most recently known as the Cornfield or Chinatown Yard property. It is a noticeably undeveloped compared to the surrounding land. The site has historical significance and associations.

Light and glare in this area is primarily associated with outdoor lighting for buildings. There is outdoor lighting for parking lots and building security, as well as street lighting. High intensity lighting illuminates Dodger Stadium next to the Santa Monica Mountains.

### 3.17.2.6 Downtown Industrial Opportunity Area

The Los Angeles River travels straight through this relatively flat area, which is the most urbanized of the five Opportunity Areas. Tall electrical transmission towers line the edges of both sides of the concrete-enclosed river. Numerous bridges cross the river, especially in the area of Interstate 10.

Industrial, commercial, and office buildings line both sides of the Los Angeles River. A rail facility with a network of train tracks is immediately adjacent to the western side of the river. Also, Union Station is a noticeable landmark northwest of the rail facility.

Very little vegetation is visible in the area, with the exception of minor landscaping around the industrial, commercial, and office buildings, as well as around residential neighborhoods beyond the buildings. Also, Hollenbeck Park is in the residential neighborhood east of the Los Angeles River. Hollenbeck Lake stretches through the park, and trees line the perimeter of the park.

Light and glare in this area is primarily associated with outdoor lighting for buildings. There is outdoor lighting for parking lots and building security, as well as street lighting.
CHAPTER 4
ENVIRONMENTAL IMPACTS AND MITIGATION

4.1 INTRODUCTION
This chapter is an evaluation of potential impacts of the river channel modifications and open space development measures being proposed in the LARRMP within the River Corridor and the five opportunity areas. Collectively, this is the study area for the existing conditions discussed in Chapter 3 and for evaluating the potential impacts presented below.

It is important to reemphasize that the evaluation of potential environmental impacts presented in this chapter is at a “programmatic level” not at a “project level” since no specific LARRMP projects have been identified in the study area for evaluation at this time. Therefore, the evaluation of environmental impacts presented below addresses potential impacts that would be likely to affect projects that may be proposed within the River Corridor and the five opportunity areas during the near-term and long-term planning periods.

The order of presenting the discussion of potential impacts in this chapter is the same as in Chapter 3. The sixteen environmental resource areas are addressed in the following order:

- Agricultural resources;
- Air quality;
- Geology, soils, and seismic hazards;
- Hydrology, floodplains, and water quality;
- Mineral resources;
- Biological resources;
- Land use;
- Recreation;
- Noise;
- Public health and safety;
- Transportation;
4.1 Introduction

- Utilities and infrastructure;
- Socioeconomics;
- Environmental justice;
- Cultural resources; and
- Aesthetic resources.

For each of the above resource areas, the general approach taken in evaluating potential environmental impacts from future LARRMP projects was as follows:

- Identifying and evaluating potential environmental impacts of implementing future LARRMP measures in the River Corridor described in Chapter 2. This approach includes identifying potential direct and indirect impacts. Direct impacts are those occurring during the time of construction, or in close proximity to a particular project activity, at a particular location. Indirect impacts would be those occurring as a result of implementing a measure, but later in time, or not in proximity. This approach also includes identifying both adverse and beneficial impacts, as well as cumulative impacts. Cumulative impacts are those that could result from the incremental impact of a measure when added to other past, present, and reasonably foreseeable future actions within the River Corridor and vicinity. The evaluation also involved assigning a predicted level to potential impacts, including low, moderate, and high and assessing if the high impacts are potentially significant.

- Evaluating two alternative configurations of revitalization measures discussed in the LARRMP at four of the five opportunity areas (one only at Taylor Yard), as well as a No Project Alternative.

- Identifying potential mitigation actions and “best management practices” that could be employed with implementation of future projects, in order to avoid, minimize, or reduce adverse environmental impacts on certain resource areas.

- Indicating where further project-level investigations, studies, and assessments would be needed to accompany future LARRMP projects in order to better define potential project-specific environmental impacts and to refine potential mitigation actions and best management practices that would reduce impact levels.

The evaluation of impacts discussed in this chapter have also taken into account the numerous environmental laws and regulations at the federal, state, and local level that monitor and govern the sixteen resource areas evaluated within the study area and vicinity. Also, where feasible, the evaluations have recognized “significance criteria,” such as those provided in the Los Angeles CEQA Thresholds Guide, to help determine potential levels of impacts to be expected from future LARRMP revitalization projects. Discussions of these relevant laws, regulations, and significance criteria have been included in each of the resource area sections.

The conclusions presented in this PEIR/PEIS are that there could be potentially significant adverse impacts on certain aspects of air quality, water quality, biological resources, land use, noise, public health and safety, transportation, socioeconomic resources, environmental justice, and cultural resources. However, no significant adverse impacts are expected for the remaining six environmental resource areas analyzed (agricultural resources; geology, soils and seismic hazards; mineral resources; recreation; utilities and infrastructure; and aesthetic resources). Beneficial impacts are expected on air quality, water quality, biological resources, recreation, and aesthetic resources.
4.2 **AGRICULTURAL RESOURCES**

4.2.1 **Introduction**

This section is an evaluation of the potential direct and indirect agricultural resources impacts from the revitalization measures and the particular configuration of measures for the five opportunity areas. Potential mitigation measures that could be applied to reduce adverse impacts to agricultural resources are discussed, along with the No Project Alternative.

4.2.1.1 **Regulatory Framework**

**Federal**

The National Resources Conservation Service (NRCS) defined Prime Farmland, Unique Farmland, Farmland of Statewide Importance, and Farmland of Local Importance as part of its nationwide Land Inventory and Monitoring System. Various states, including California, have modified the definitions for specific uses (CDC 2004a).

**State**

The California Department of Conservation has modified the Land Inventory and Monitoring System definitions for use in California. The most significant modification is that Prime Farmland and Farmland of Statewide Importance must be irrigated (CDC 2004a).

**Local**

Farmland of Local Importance initially is identified by a local advisory committee and varies from county to county, as intended by the Land Inventory and Monitoring System. The adopted definition in Los Angeles County is for “producing lands that would meet the standard criteria for Prime or Statewide but are not irrigated” (CDC 2004a).

The California Land Conservation Act (also known as the Williamson Act) protects farm and ranch land by enabling private landowners to enter into contracts with cities and counties to voluntarily restrict land to agricultural and open space uses. In return, the landowners’ property taxes are based on the designated land use rather than full market value. The Williamson Act is not addressed in this analysis because the City and County of Los Angeles do not participate in the program (CDC 2005).

4.2.1.2 **Significance Criteria**

Because the Los Angeles CEQA Thresholds Guide does not address effects on agricultural resources, the threshold of significance was developed using the evaluation questions concerning agriculture in Appendix G of the CEQA Guidelines (California Resources Agency 1998). The following threshold of significance was applied in this analysis of agricultural resources:

- Conversion of Agricultural Land: Conversion of Important Farmland, defined as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, to nonagricultural use.

A review of documented land uses in the project area was conducted to identify any lands designated as Prime, Unique, or Important Farmland. Where such lands were identified, a preliminary impact evaluation determined if future implementation of the LARRMP revitalization measures could convert agricultural land
4.2 Agricultural Resources

to nonagricultural use. Included in the review were maps and documents from the Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program and General Plan Land Use Maps.

4.2.2 Potential Impacts Associated with LARRMP River Channel and Open Space Development Measures in the River Corridor

4.2.2.1 River Channel Modification Measures
None of the River Channel Modification without Reduction in Flow Velocity Measures described in Chapter 2 would result in the conversion of designated farmlands. Since all identified River Channel Modification without Reduction in Flow Velocity Measures occur within the existing Los Angeles River channel ROW, no conflict with existing zoning for agricultural use would occur with their implementation.

Three types of Velocity Reducing River Channel Modification Measures are described in Chapter 2 of this PEIR/PEIS. Of the three types, Type V-R-3, which reduces velocity by widening the channel through land acquisition, has the potential to impact designated agricultural lands. The only locations in the study area where designated farmlands occur next to the Los Angeles River channel are just upstream of Sepulveda Basin, where there are two agricultural areas—one on the north side of the channel and one on the south side. If river channel modification measures are proposed in the future in that location land were acquired and converted to nonagricultural use, additional studies would be required to define impacts and appropriate mitigation measures, if applicable.

4.2.2.2 Open Space Development Measures
As noted above, the only locations in the study area with designated Important Farmlands within the River Corridor are just upstream of Sepulveda Basin. The only Open Space Development Measure identified in the vicinity of these Important Farmland areas is the River Loop upstream of Sepulveda Basin. Development of the River Loop could convert farmland into nonagricultural uses. If the River Loop in this area is to be evaluated for future implementation, additional studies would be required to define impacts and appropriate mitigation measures, if applicable.

No other Open Space Development Measures are proposed on any lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance. As such no other impacts are anticipated from implementing any of the remaining Open Space Development Measures in the LARRMP.

4.2.2.3 Potential Impact Levels
Potential impacts on farmlands associated with River Channel Modifications are expected to be negligible since they would typically involve only incremental expansion of the existing ROW for those measures requiring ROW expansion. The potential impacts of creating trails, paths, bikeways, and other open space measures as part of the River Loop upstream of Sepulveda Basin are considered low.

4.2.2.4 Mitigation Actions
Site-specific impact studies would be required to assess impacts on agricultural resources from any future proposed LARRMP revitalization measures in the area upstream of Sepulveda Basin that would convert agricultural lands. The findings of these studies are required prior to identifying appropriate mitigation actions.
for these future projects. Appropriate mitigation actions will vary depending on the scale of the proposed conversion and the extent of the impact. Generally mitigation measures will be identified to:

- Avoid agricultural resource impact altogether by not taking a certain action or parts of an action;
- Minimize agricultural resource impacts by limiting the degree or magnitude of the action and its implementation;
- Rectify the agricultural resource impact by repairing, rehabilitating, or restoring the impacted land use;
- Reduce or eliminate the agricultural resource impact over time by preservation and maintenance operations; and
- Compensate for the agricultural resource impact by replacing or providing substitute resources.

4.2.3 Potential Impacts in Opportunity Areas

No potential impacts on agricultural resources were identified in the Canoga Park, River Glen, Taylor Yard, Chinatown-Cornfields, and Downtown Industrial Opportunity Areas.

4.2.4 No Project Alternative

Under the No Project Alternative, LARRMP revitalization measures within the 32-mile River Corridor and the five opportunity areas would not occur and no future conversion of agricultural lands would result from implementation of LARRMP measures.
4.3 Air Quality

4.3.1 Introduction
This section is an evaluation of the potential direct and indirect air quality impacts on the five opportunity areas. Identified are mitigation actions in the form of best management practices that could be applied to reduce potential adverse air quality impacts. Potential air quality impacts associated with the No Project Alternative are also discussed.

4.3.1.1 Regulatory Framework
Air quality impacts have been evaluated in terms of emissions associated with the proposed revitalization measures within the River Corridor and alternative configurations of measures within the opportunity areas. Particulate matter emissions presented as PM$_{10}$ are discussed because this is the most common emission associated with construction activities. Visible dust is an indication of airborne PM$_{10}$ concentrations that are typically in the range of several thousand micrograms per cubic meter. It takes only a few hours of construction at these concentrations to exceed the state and federal 24-hour average PM$_{10}$ standard of 150 micrograms per cubic meter.

The California Air Resources Board (CARB) is mandated under the California Clean Air Act to achieve the maximum degree of emissions reductions from all off- and on-road mobile sources in order to attain the state ambient air quality standards. Seven on-road mobile source programs are currently implemented to reach these standards. The 2007 SIP strategy will add to the adopted SIP measures new measures and long-term measures. Mobile sources programs under the 2007 SIP will provide over 90 percent of the ozone emission reductions that will occur between now and 2023 in the SCQMD. The district’s carrying capacity for both ozone and PM2.5 attainment is 238 tons for NOx and 304 tons for ROG. The CARB analysis estimates that from today’s levels about a 75 percent reduction in NOx is needed for ozone attainment. CARB’s SIP strategy, including adopted and proposed SIP measures, will provide about a 60 percent reduction in NOx by 2020, and 65 percent reduction by 2023. Long-term concepts are needed to achieve an additional 114 tons per day of reductions, requiring an extreme classification with a 2024 attainment deadline (CARB 2007).

With the estimated ROG carrying capacity of 304 tons, an additional 139 tons per day will be needed from long-term measures as shown below. In the end, a smaller proportion of ROG than NOx reductions may be targeted based on future technology advancements, feasibility and cost-effectiveness (CARB 2007).

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4.3 Air Quality

With the estimated ROG carrying capacity of 304 tons, an additional 139 tons per day will be needed from long-term measures, as shown below. In the end, a smaller proportion of ROG than NO\textsubscript{x} reductions may be targeted, based on future technology advancements, feasibility, and cost-effectiveness (CARB 2007).

4.3.1.2 Significance Criteria

Criteria to help determine the level and significance of air quality impacts from implementing the LARRMP are based on federal, state, and local air pollution standards and regulations. These criteria would become applicable if and when future implementation projects are identified in the River Corridor. At that time, an air quality impact would be considered significant if any of the following were to apply:

- Future project emissions were to violate or substantially contribute to a violation of federal or state quality standards;
- Future project emissions were to exceed mass daily thresholds established by the South Coast Air Quality Management District (SCAQMD) for the determination of significance of air quality impacts;
- Pollutants associated with future projects were to be released in quantities or concentrations sufficient to cause substantial visible emissions, exceeding the limits in SCAQMD Rule 1303;
- Future projects were to expose sensitive receptors to pollutant concentrations that exceed health-based standards; or
- Future projects were to create objectionable odors that could affect a substantial number of people.

4.3.2 Potential Air Quality Impacts Associated with River Channel Modification and Open Space Development Measures in the River Corridor

4.3.2.1 Introduction

Both adverse and beneficial air quality impacts could result from implementing the two main types of river channel modification measures (non-velocity-reducing and velocity-reducing) and the suite of open space measures described in Chapter 2. Potential adverse impacts include short-term increases in fugitive dust and vehicle emissions associated with construction activities and incremental long-term increases in vehicle emissions that could accompany increased traffic from those seeking to use new amenities. Potential short-term adverse air quality impacts are expected to be higher for those measures involving more extensive construction activities, such as velocity-reducing channel modifications and sports fields. PM\textsubscript{10} is the pollutant of greatest concern with respect to these activities. PM\textsubscript{10} emissions can occur as fugitive dust from demolition, excavation, grading, and vehicle travel on paved and unpaved surfaces, as well as from vehicle and equipment exhausts (see Section 4.3.1.1). On-road vehicles associated with short-term construction activities and potential increased traffic on the long term would contribute to NO\textsubscript{x}, ROG, CO, PM\textsubscript{10}, and PM\textsubscript{2.5} emissions. ROG form \textsubscript{O3} when they react with nitrogen oxides. Potential health risks from NO\textsubscript{x} and ROG include chronic pulmonary fibrosis, breathing difficulties, and lung tissues damage. CO could cause health problems and reduced mental alertness.

On the beneficial side, establishing green vegetation in the river channel and developing parks, green streets, paseos and promenades in the River Corridor could have long-term beneficial improvements on ambient air quality. Many of these measures include enhanced pedestrian access, which could help reduce vehicle emissions. Also, increasing the amount of green open space and adding trees along streets could help reduce
levels of greenhouse gases, such as carbon dioxide (CO₂), and reduce greenhouse gas emissions as required by the State’s Global Warming Solutions Act of 2006.

4.3.2.2 Potential Impact Levels
As future LARRMP implementation projects are identified in the River Corridor, each project should conform to applicable air quality standards. To that end, it is anticipated that sources and types of potential emissions would be identified, emission levels would be determined for each project, localized significance analysis would be performed, and potential cumulative air quality impacts from other planned projects would be accounted for. Because it is likely that implementing the LARRMP revitalization measures would involve major demolition and construction activities along the 32-mile-long River Corridor, potential adverse impacts on air quality are expected to be high and potentially significant.

4.3.2.3 Mitigation Actions—Best Management Practices
When future LARRMP implementation projects are undertaken, potentially significant air quality impacts associated with construction of these projects can be reduced to less than significant levels through the application of the following best management practices:

- Minimize the area disturbed by clearing, earthmoving, or excavating;
- Use water trucks or sprinkler systems in sufficient quantities to contain fugitive dust on-site; increased watering frequency should be required whenever wind speeds exceed 15 miles per hour; reclaimed (nonpotable) water should be used whenever possible;
- Spray all dirt stockpile areas daily or as needed;
- Implement permanent dust control measures, such as revegetating and landscaping, as soon as possible following completion of any soil-disturbing activities.
- Treat ground areas that are planned to be exposed for at least a month after initial grading with a fast-germinating native grass seed and watering until vegetation is established;
- Stabilize all disturbed soil areas not subject to revegetation using state- and federally approved chemical soil binders;
- Pave all roadways, driveways, walkways (if so designed) as soon as possible; similarly, finishing building pads as soon as possible after grading unless seeding or soil binders are used;
- Limit construction vehicle speeds to 15 miles per hour on any unpaved surface at the construction site;
- Cover all trucks hauling dirt, sand, soil, or other loose materials or maintaining at least two feet of freeboard (minimum vertical distance between top of load and top of trailer), in accordance with California Vehicle Code Section 23114;
- Install wheel washers where vehicles enter and exit unpaved roads onto streets or washing off trucks and equipment leaving the site;
- Sweep streets at the end of each day if visible soil is carried onto adjacent paved roads; use water sweepers with reclaimed water, where feasible; and
• Have a dust control program and a monitor on-site to oversee watering or other measures to prevent off-site transportation of dust; contact information for the monitor should be provided to the SCAQMD.

4.3.3 Canoga Park Opportunity Area

The potential air quality impacts associated with the two alternative configurations of revitalization measures presented in the LARRMP for this opportunity area are discussed below.

4.3.3.1 Potential Air Quality Impacts—Alternative CP-A

Revitalization measures that make up Alternative CP-A include 1,200-foot-long terraces along the north and south side of the river. The south side would include access to the water via a 15-foot-wide walkway and water treatment terraces. On the north side, a 15-foot-wide walkway and linear park would be provided. The channel would be modified to create intermittent habitat areas. Open space developments include a riverfront park, two linear parks, and a pocket park. Green streets would include three regional greenway connections and several arterial and local green streets. Open space developments would also include paseos every 300 feet in new developments and at least one paseo promenade on each side of the river. Additionally, proposed measures include bikeways and trails, two pedestrian bridges, two regional gateways, and four neighborhood gateways. Re-investment measures include land acquisition for open space use.

The proposed river channel modification and open space developments would result in temporary short-term adverse air quality impacts during construction. The air quality issues associated with construction under the proposed configuration of measures are emissions from demolition, excavation, site grading, and construction. PM\textsubscript{10} is the pollutant of greatest concern with respect to these activities. Construction-related emissions, particularly site grading, could substantially increase localized concentrations of PM\textsubscript{10} for brief periods. Particulate emissions from construction can lead to adverse health effects and nuisance concerns, such as reduced visibility. Implementing dust control measures, as described in Section 4.3.2.3, could substantially reduce PM\textsubscript{10} emissions during construction.

Long-term minor adverse air quality impacts would be from potential increased traffic within the opportunity area (see Section 4.3.1.1). On-road vehicles are the major contributors to NO\textsubscript{x}, ROG, CO, PM\textsubscript{10}, and PM\textsubscript{2.5} emissions. ROG form O\textsubscript{3} when they react with nitrogen oxides. Potential health risks with NO\textsubscript{x} and ROGs include chronic pulmonary fibrosis, breathing difficulties, and lung tissues damage. CO could cause health problems and reduced mental alertness. New park and open space development would attract local and area visitors.

On the other hand, developing pedestrian and bike opportunities would reduce the use of motor vehicles at the opportunity area, which would result in indirect long-term beneficial impacts.

As the proposed revitalization measures within the Canoga Park Opportunity Area become part of future projects, types and levels of potential emissions should be determined and evaluated to ensure that future projects conform to applicable air quality standards. Because the proposed revitalization measures would include major demolition and construction activities, high and potentially significant adverse air quality impacts are expected. However, with the implementation of mitigation actions described under Section 4.3.2.3, the potential adverse air quality impacts associated with future projects are expected to be reduced to less than significant levels.
4.3.3.2 Potential Air Quality Impacts—Alternative CP-B
Potential air quality impacts with Alternative CP-B are expected to be similar to those described under Alternative CP-A, except for potential increases in construction-related emissions associated with the additional 800 feet of terraces between Canoga and Variel Streets, the expanded riverfront park on the south side of the river, and the more intensive reinvestment measures. Indirect long-term beneficial impacts are also expected to be greater with the additional enhancements.

Although adverse air quality impacts associated with Alternative CP-B would be higher than with Alternative CP-A, the level of impacts are expected to be reduced to less than significant levels because projects would be undertaken over an extended period, rather than all at once, and the mitigation actions listed in Section 4.3.2.3 would be applicable to each project.

4.3.4 River Glen Opportunity Area
The potential air quality impacts associated with the two alternative configurations of revitalization measures are discussed below.

4.3.4.1 Potential Air Quality Impacts—Alternative RG-A
The proposed measures at River Glen Opportunity Area include a regional water quality treatment wetland at Verdugo Wash, modified channel bottom to provide intermittent habitat areas, and a river parkway on the east bank. Park and open space developments include a continuous linear terraced park, two regional greenway connections, arterial streets, and local green streets. Paseos are proposed to be developed every 300 feet, and there would be one paseo promenade at each side of the river. Proposed measures also include bikeways and trails, two pedestrian bridges, one pedestrian/equestrian bridge, three regional gateways, and three neighborhood gateways. Reinvestment plans include extensive roadway improvements.

The proposed river channel modification and open space developments would result in temporary short-term high and potentially significant adverse air quality impacts during the construction period. PM$_{10}$ is the pollutant of greatest concern with respect to the emissions from the proposed configuration of measures. Construction-related emissions, particularly site grading, could substantially increase localized concentrations of PM$_{10}$ for short periods. Particulate emissions from construction can lead to adverse health effects and nuisance concerns, such as reduced visibility. Implementing dust control measures can significantly reduce PM$_{10}$ emissions from construction.

Long-term low to moderate adverse air quality impacts are expected to result from the development of the extensive roadway improvements that would increase traffic within the opportunity area (see Section 4.3.1.1). On-road vehicles associated with potential increased traffic would contribute to NO$_x$, ROG, CO, PM$_{10}$, and PM$_{2.5}$ emissions. ROG form O$_3$ when they react with nitrogen oxides. Potential health risks from NO$_x$ and ROG include chronic pulmonary fibrosis, breathing difficulties, and lung tissues damage. CO could cause health problems and reduced mental alertness.

However, the development of pedestrian and bike opportunities would be expected to reduce the use of motor vehicles within the opportunity area, which would contribute to indirect long-term beneficial impacts.

As the proposed revitalization measures at River Glen Opportunity Area become more defined as future projects, emission types and levels should be determined and evaluated to ensure that the project conforms to...
applicable air quality standards. The proposed revitalization measures would result in major construction activities, and therefore, high and potentially significant adverse air quality impacts are expected. However, it is assumed that mitigation actions described in Section 4.3.2.3 would be available for all future projects; therefore, potential adverse air quality impacts associated with future projects could be reduced to less than significant levels.

4.3.4.2 Potential Air Quality Impacts—Alternative RG-B

Potential air quality impacts with Alternative RG-B are anticipated to be similar to those described under Alternative RG-A, except for the relative increase in construction emissions associated with the realignment of Verdugo Wash and the grade-separated crossings. Also, the indirect long-term adverse traffic impacts are also expected to be relatively greater with the additional economic development opportunities accompanying the more intensive reinvestment called for in this alternative.

Although construction emissions with Alternative RG-B are expected to be higher than those with Alternative RG-A, the level of impacts is expected to also be reduced to less than significant levels with the implementation of the suite of mitigation actions described in Section 4.3.2.3.

4.3.5 Taylor Yard Opportunity Area

The proposed revitalization measures at Taylor Yard Opportunity Area include one mile of terraces along the east bank and intermittent habitat areas along the channel bottom. Open space developments include a regional park, a linear park, regional greenways connections, and arterial and local green streets. Proposed open space developments would also include paseos and promenades, bikeways and trails, five pedestrian bridges, two regional gateways, and three neighborhood gateways. It is assumed that in the long-term the small industry along the west bank would be replaced with mixed land use as a result of market pressure.

The proposed river channel modification and open space developments would result in temporary short-term high and potentially significant impacts during construction. PM$_{10}$ is the pollutant of greatest concern with respect to the emissions from the proposed configuration of measures. Construction-related emissions, particularly site grading, could substantially (but temporarily) increase local concentrations of PM$_{10}$. Such particulate emissions from construction could lead to adverse health effects and nuisance concerns, such as reduced visibility. Implementing dust control measures (see Section 4.3.2.3) would substantially reduce PM$_{10}$ emissions from construction.

Long-term low to moderate adverse air quality impacts are expected from potential increased traffic within the opportunity area, with the additional visitors to proposed new parks and open space (see Section 4.3.1.1). On-road vehicles associated with potential increased traffic would contribute to NO$_x$, ROG, CO, PM$_{10}$, and PM$_{2.5}$ emissions. ROG form O$_3$ when they react with nitrogen oxides. Potential health risks associated with NO$_x$ and ROG include chronic pulmonary fibrosis, breathing difficulties, and lung tissues damage. CO could cause health problems and reduced mental alertness.

However, the proposed mixed land use along the west bank, as well as the development of pedestrian and bike opportunities, is expected to reduce the use of motor vehicles within the opportunity area. This would result in indirect long-term beneficial air quality impacts that could help offset potential adverse impacts.
As the LARRMP measures proposed for the Taylor Yard Opportunity Area become more refined in future projects, the types and levels of project-specific air quality emissions should be determined through appropriate studies and then adequately evaluated to ensure that future projects conform to applicable air quality standards. Although major construction activities would be undertaken in future projects, the projects would not all take place at the same time but would be implemented over an extended period. Some or all of the mitigation actions described in Section 4.3.2.3 are expected to be applied during construction to reduce the air quality impacts. Therefore, potential adverse air quality impacts associated with future LARRMP implementation projects at this opportunity area are expected to be reduced to less than significant levels.

4.3.6 Chinatown-Cornfields Opportunity Area

The potential air quality impacts associated with the two alternative configurations of revitalization measures presented in the LARRMP for this opportunity area are discussed below.

4.3.6.1 Potential Air Quality Impacts—Alternative CC-A

The proposed revitalization measures at Chinatown-Cornfields Opportunity Area include terraces to make up for a linear park along the west bank, and terraces and an urban promenade along the east bank. Open space developments include extending the Cornfield State Historic Park to the river edge, three linear parks, regional greenway connections, arterial green streets, and local green streets. Proposed open space developments also include paseos and promenades, bikeways and trails, one pedestrian bridge, two pedestrian underpasses, three regional gateways, and several neighborhood gateways. The proposed reinvestment measures include residential/mixed-use developments, using the existing infrastructure.

The proposed river-channel modification and open space developments would result in temporary short-term, high and potentially significant air quality impacts during construction. PM10 is the pollutant of greatest concern with respect to emissions from the proposed configuration of measures. Construction-related emissions, particularly site grading, could substantially increase localized concentrations of PM10. Particulate emissions from construction could lead to adverse health effects and nuisance concerns, such as reduced visibility. Implementing the dust control measures described in Section 4.3.2.3 would considerably reduce PM10 emissions during construction.

Long-term low to moderate adverse air quality impacts within the opportunity area are expected from a potential increase in traffic associated with an increase in visitors to the new parks and open space developments (see Section 4.3.1.1). On-road vehicles associated with potential increased traffic would contribute to NOx, ROG, CO, PM10, and PM2.5 emissions. ROG form O3 when they react with nitrogen oxides. Potential health risks with NOx and ROG include chronic pulmonary fibrosis, breathing difficulties, and lung tissues damage. CO could cause health problems and reduced mental alertness.

However, the projected mixed land-use and the development of pedestrian and bike opportunities is expected to reduce the use of motor vehicles at the opportunity area, resulting in indirect long-term improvements to local air quality. This could help offset potential adverse air quality impacts from increased number of visitors.

As the proposed measures at Chinatown-Cornfields Opportunity Area become more defined as implementation projects are proposed, air quality studies should be undertaken to determine the types and level of emissions from the proposed projects and to ensure that projects conform to applicable air quality standards. Although major construction activities would be undertaken for some projects, implementation
projects would be identified and completed over an extended period. Assuming the mitigation actions described in Section 4.3.2.3 could be applied to specific projects to reduce potential air quality impacts, the potential adverse air quality impacts associated with this alternative are expected to be reduced to less than significant levels.

### 4.3.6.2 Potential Air Quality Impacts—Alternative CC-B

Potential air quality impacts with Alternative CC-B are expected to be similar to those described under Alternative CC-A, except for the relative increase in emissions associated with construction of the channel diversion and the development of the small island. The indirect long-term beneficial impacts would also be expected to be greater with the mixed land use proposed with this alternative.

Although construction emissions would likely be greater than those with Alternative CC-A, the overall level of air quality impacts are expected to be reduced to less than significant levels with the use of mitigation actions described in Section 4.3.2.3, and because future projects would likely be implemented over an extended period rather than all at once.

### 4.3.7 Downtown Industrial Opportunity Area

The potential air quality impacts associated with the two alternative configurations of revitalization measures presented in the LARRMP for this opportunity area are discussed below.

#### 4.3.7.1 Potential Air Quality Impacts—Alternative DI-A

The proposed configuration of revitalization measures within the Downtown Industrial Opportunity Area include three small pocket-parks along the east side of the river, an urban promenade along the west bank, and a vertical wall along the west side. Proposed measures would also include linear parks, regional greenway connections, arterial green streets, and local green streets. Paseos would be located in new developments at every 400 feet, and paseo promenades likely would be located along 3rd and Willow Streets. Five pedestrian bridges would be located at 1st, 4th, 6th, and 7th Streets and the Santa Monica Freeway. Two regional gateways would be located at 1st and 6th Streets and two neighborhood gateways would be established at 3rd and Willow Streets. The proposed measures would include mixed-use developments for the underused properties. Also, the existing industrial land uses would be protected, and the rail lines would be relocated to the east to create additional parkland adjacent to the river.

The proposed configuration of river channel modification and open space developments would create short-term, high and potentially significant air quality impacts during construction. PM$_{10}$ is the pollutant of greatest concern with respect to the emissions from the proposed configuration of measures. Construction-related emissions, particularly site grading, could substantially increase localized concentrations of PM$_{10}$. Particulate emissions from construction could lead to adverse health effects and nuisance concerns, such as reduced visibility. Implementing the dust control actions described in Section 4.3.2.3 would appreciably reduce PM$_{10}$ emissions during construction.

Long-term low to moderate adverse air quality impacts are expected from the potential increased traffic within the opportunity area that would accompany greater visitation of new parks and open spaces (see Section 4.3.1.1). On-road vehicles associated with potential increased traffic would contribute to NOx, ROG, CO, PM$_{10}$, and PM$_{2.5}$ emissions. ROG form O$_3$ when they react with nitrogen oxides. Potential health risks
with NO\textsubscript{x} and ROG include chronic pulmonary fibrosis, breathing difficulties, and lung tissues damage. CO could cause health problems and reduced mental alertness.

However, the projected mixed land use and the development of pedestrian and bike opportunities would reduce the use of motor vehicles in the opportunity area and could partially offset emissions from increased traffic.

As the proposed measures at the Downtown Industrial Opportunity Area become more defined as implementation projects are proposed, air quality studies should be undertaken to determine the types and level of emissions that would be associated with proposed projects to ensure that projects conform to applicable air quality standards. Although major construction activities would be undertaken for some projects, implementation projects would be identified and completed over an extended period. On this basis, and assuming the mitigation actions described in Section 4.3.2.3 would be applied to specific projects, the potential adverse air quality impacts associated with this alternative are expected to be reduced to less than significant levels.

4.3.7.2 Potential Air Quality Impacts—Alternative DI-B

Potential air quality impacts from Alternative DI-B are expected to be similar to those described under Alternative DI-A, except for the relative increase in emissions from the additional water quality treatment and open space areas. Indirect long-term beneficial air quality impacts are also expected to be greater with the additional enhancement of mixed land use in this alternative, but the greater density of industrial jobs would likely increase traffic-related emissions. However, for the same reasons stated above for Alternative DI-A, overall adverse air quality impacts associated with Alternative DI-B are expected to be reduced to less than significant levels.

4.3.8 No Project Alternative

With the No Project Alternative, some common aspects of river revitalization would occur in the foreseeable future as part of other projects. foreseeable planned projects within the City of Los Angeles include the Cornfields State Historic Park, as well as wastewater treatment and water resources management projects. These and other planned and potential projects along the Los Angeles River would likely contribute to emissions in PM\textsubscript{10}, PM\textsubscript{2.5}, ROG, NO\textsubscript{x}, and CO. Some of the projects may include pedestrian and nonmotorized features that could help indirectly in reducing traffic emissions. With the No Project Alternative, roadway improvements might be conducted and might increase the number of on-road vehicles within the SCAQMD. However, the CARB on-road mobile source programs are expected to result in reduced traffic emissions by 2020. At present, there are no CARB projections available for beyond 2020.
4.4 GEOLOGY, SOILS, AND SEISMIC HAZARDS

4.4.1 Introduction
This section is an evaluation at a programmatic level of the potential direct and indirect impacts on geology, soils, and seismic hazards associated with the array of revitalization measures and the particular configuration of measures selected for each of the five opportunity areas described in Chapter 2. Mitigation actions that could be applied in order to reduce potential adverse impacts on these resources are identified. Potential impacts associated with the No Project Alternative are also discussed.

4.4.1.1 Regulatory Framework
Numerous environmental laws and regulations govern the geologic and seismic resources in the study area. An overview of some of the more pertinent regulations and responsible agencies is presented below.

Federal
The federal role related to geology and soils is limited. The United States Geologic Survey (USGS) provides reliable scientific information to describe and understand the earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life. They do not have regulatory authority/jurisdiction. Rather, they provide scientific information that can be used to help mitigate impacts from natural disasters such as earthquakes, landslides, and volcanoes.

The Federal Emergency Management Agency (FEMA) mission is to lead the effort to prepare the nation for all hazards and effectively manage federal response and recovery efforts following any national incident whether it is from a hurricane, earthquake, tornado, flood, fire or hazardous spill, act of nature or act of terrorism. FEMA manages the National Flood Insurance Program. Under the National Flood Insurance Program, future LARRMP revitalization projects involving physical changes to the Los Angeles River would have to be assessed to determine if they would alter the floodplain.

State
California has promulgated a number of regulations regarding geology and soils. The International Building Code (IBC) regulates construction practices including sections pertinent to design and construction to avoid geotechnical hazards. The codes include design standards and general design parameters for seismic design. The States Building Standards Commission is responsible for administering California's building codes, including adopting, approving, publishing, and implementing codes and standards.

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to address the hazards of surface faulting to buildings. This state law was a direct result of the 1971 San Fernando Earthquake. The purpose of the Alquist-Priolo Earthquake Fault Zoning Act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. This act only addresses the hazard of surface fault rupture. Other earthquake hazards are addressed by the Seismic Hazards Mapping Act passed in 1990, which addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically induced landslides.

Before specific future LARRMP revitalization projects can be permitted, a geologic investigation must be conducted to demonstrate that proposed buildings will not be constructed across active faults. The evaluation and written report of specific sites must be prepared by a licensed geologist. If an active fault is found,
structures for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (generally 50 feet). Based upon a review of the Alquist-Priolo Earthquake Fault Zone Maps, there are none in the River Corridor. The nearest fault zone to the Los Angeles River within the study area is about 2 miles to the west of the Taylor Yard Opportunity Area at York Boulevard towards Highland Park.

The Seismic Hazards Mapping Act requires the mapping of seismic hazard zones to mitigate hazards to help protect public health and safety. Included are shaking hazards, liquefaction, and landslides. Amplified shaking hazard zones are areas where historic occurrence of amplified ground shaking, or local geological and geotechnical conditions indicate a potential for ground shaking to be amplified to such a level that mitigation would be required. Liquefaction hazard zones are areas where historic occurrences of liquefaction, or local geological, geotechnical and ground water conditions indicate a potential for permanent ground displacement. Earthquake-induced landslide hazard zones are areas where Holocene occurrence of landslide movement, or local slope of terrain, and geological, geotechnical and ground moisture conditions indicate a potential for permanent ground displacements.

Local
A number of local building permits and programs regulate development and construction of facilities in the City and County of Los Angeles. The Los Angeles Building Code provides requirements for construction, grading, excavation, use of fill, and foundation work including types of materials and design, so as to minimize the likelihood and severity of consequences from geologic hazards. One such measure is the Hillside Ordinance, which regulates construction and development on hillsides.

4.4.1.2 Approach and Methodology
The array of LARRMP river channel modification and open space development measures were evaluated to determine if they would exacerbate geologic hazards or place people or property in an increased risk from such an event. This was done by evaluating the environmental setting which includes soil type, location of faults, potential landslide areas, topography, and steepness of hillsides. As planning for the development of future revitalization projects progresses, site-specific geotechnical investigation should be conducted to further assess the potential geophysical hazards and to propose mitigation measures to reduce the potential for seismic-induced damages. These investigations are important to protect structures, ensure public safety, and to reduce impacts on natural resources. The studies would assess such factors as seismic hazards, slope stability, and soil suitability. They would evaluate the potential for settlement due to loads imposed by new buildings and structures, and placement of fill. Geotechnical parameters would also be developed for foundation design, including estimates for differential settlements of underlying fills and soft clays, and seismic lateral loads.

Since the Los Angeles area is seismically active, development will always include some degree of risk. Significant impacts, as indicated by the significance criteria discussed below, would exceed the typical hazard risk for the region. For example, building a structure on a fault would cause a significant geologic hazard impact.

4.4.1.3 Significance Criteria
In accordance with the “Los Angeles CEQA Thresholds Guide” (City of Los Angeles 1998), a project could have a potentially significant impact to geology and soils if it were to cause one or more of the following conditions:
4.4 Geology, Soils, and Seismic Hazards

- Cause or accelerate geologic hazards which would result in substantial damage to structures or infrastructure, or expose people to substantial risk of injury.
- Constitute a geologic hazard to other properties by causing or accelerating instability from erosion; or
- Accelerate natural processes of wind and water erosion and sedimentation, resulting in sediment runoff or deposition which would not be contained or controlled on-site.

4.4.2 Potential Impacts Associated with LARRMP River Channel Modification and Open Space Development Measures in the River Corridor

This section presents impacts on geology, soils, and seismic hazards related to implementation of the LARRMP measures as described in sections 2.2 and 2.3 (river channel modifications and open space development).

4.4.2.1 River Channel Modification Measures

There are two types of River Channel Modification Measures discussed in the LARRMP: (a) without reduction in river flow velocity; and (b) with reduction in river flow velocity. Potential impacts and mitigation associated with these two types of channel modifications are discussed below.

**Without Flow Velocity Reduction Type**

For the without-flow-reduction type of channel modifications (see Section 2.2.2), vegetative cover would be increased up to 30 percent within the channel right-of-way (ROW) and intermittent habitat would be developed along the river bottom. Greening measures would also include enhancing water quality treatment of stormwater outfalls by developing vegetative bio-swales and bio-filtration areas. With this type of channel modification, negligible impacts on geology, soils, and seismic hazards are expected. Most of the work under this alternative would consist of removing concrete in the channel ROW and planting vegetation. The removal of concrete and soil would be necessary, along with installation of landscaping.

A number of faults are in the vicinity of the river beginning about where the river crosses US 101 (Hollywood Freeway) to about where the river crosses SR-2 (Glendale Freeway). Because of the presence of faults in this area, extra considerations and precautions should be taken with projects in this area to ensure work complies with local ordinances related to seismic hazards. It must also be taken into account that there are areas of shallow and exposed sandstone and undifferentiated sedimentary rocks, and excavation work may involve rock blasting.

Disturbed soils at project sites would be subject to erosion from wind and rain. Extensive erosion and subsequent impacts to air and water quality could occur due to the substantial amount of ground clearing and earth work involved with some projects. A stormwater pollution control plan would be developed for each future LARRMP revitalization project that includes best management practices to help control erosion and loss of soil. Best management practices would include such measures as the use of silt fencing, hay bales, settling basins, and the wetting down of exposed soils to control dust.

**With Flow Velocity Reduction Type**

For the with-flow-reduction type of channel modifications (see Section 2.2.3), vegetative cover would be increased by up to 50 percent within the channel ROW and more continuous habitat would be developed.
4.4 Geology, Soils, and Seismic Hazards

along the river bottom. Work would also include measures to reduce water velocity, such as constructing underground linear culverts parallel and adjacent to the river.

Potential seismic related impacts associated with the with-flow-reduction type of channel modifications would be substantially greater than the without-flow-reduction type because of the increase in the amount of concrete and earth work required. Installing culverts parallel to the river channel would involve a substantial amount of excavation and backfill, as well as some blasting in areas with shallow bedrock, and the crossing of numerous roads. Work would also have to be designed to accommodate local seismic hazards since the river crosses several known faults.

Most of the River Corridor from Canoga Park to downtown Los Angeles is in a liquefaction zone. Subsequently soils have a high potential for instability and liquefaction, especially when disturbed and during rainy/wet periods. Developing in-channel habitat for either type of channel modification would also require substantial earth work since most of the river channel is completely lined with concrete (excluding Sepulveda Basin and the Glendale Narrows). By incorporating mitigative actions such as avoiding faults, and taking into account the high potential of the soil liquefaction in the River Corridor, potential adverse impacts can be reduced to less than significant levels.

As with the without-flow velocity reduction types, disturbed soils at future project sites would be subject to erosion from wind and rain. Extensive erosion and subsequent impacts to air and water quality could occur, especially since this alternative would necessitate substantial amounts of ground clearing and earth work. Soils would be subject to erosion until construction is complete and vegetation becomes re-established. A stormwater pollution control plan would be developed that includes best management practices to help control erosion and loss of soil.

4.4.2.2 Open Space Development Measures

As discussed in section 2.3, open space development measures include greenway connections, greenway expansions, and greenway extensions. More specifically, they include the development of parks, green streets, paseos and promenades, trails and bikeways, pedestrian river crossings, river loops, gateways, and water quality and habitat improvements.

Future LARRMP revitalization projects involving these measures would involve a moderate amount of earth work. Existing soils and concrete would in some cases need to be excavated, and buildings may need to be removed. In general, at most project sites, disturbed/exposed soils would be subject to wind and stormwater erosion. Since these revitalization measures would be designed for human use, greater emphasis on public safety related to seismic hazards would be needed. Bridges, arches, and buildings should be designed accordingly. Construction near faults and in liquefaction zones should be taken into account. Site specific soil and geologic conditions would be taken into consideration during design to ensure public safety and to minimize potential impacts. By incorporating mitigation actions such as avoiding faults, and taking into account the high potential of soil liquefaction in the River Corridor, potential adverse impacts can be reduced to less than significant levels.

4.4.2.3 Evaluation of Impact Levels

With the implementation of appropriate mitigation as discussed in section 4.4.9, impacts from implementation of the river modification measures would range from moderate to high. There is the potential
for high impact levels of soil erosion from wind and stormwater runoff. Disturbed soils would need to be stabilized and best management practices implemented to keep potential impacts to less than significant levels. Eroded soils could adversely affect water quality in the river and cause accretion problems downstream. High winds during dry periods could cause dust to be generated, creating air quality concerns. There is also the potential of high impact levels due to much of the construction being in a liquefaction zone. Appropriate stabilization and design methods would need to be implemented to keep potential impacts to less than significant levels.

4.4.3 Canoga Park Opportunity Area
The Canoga Park Opportunity Area is where Bell Creek and Arroyo Calabasas converge to form the Los Angeles River. A description of the alternatives for this opportunity area can be found in section 2.4.1 and 2.4.2 of this PEIR/PEIS. A discussion of the anticipated environmental impacts on geology, soils, and seismic hazards for the two alternatives discussed for this opportunity area in the LARRMP is presented below.

4.4.3.1 Potential Impacts – Alternative CP-A
Alternative CP-A includes terracing the river channel, developing parks, green streets, pasoes and promenades, trails, pedestrian bridges, and water quality enhancement measures. Construction would necessitate a substantial amount of earth work including the excavation of soils and concrete. No faults are mapped in the area; however, the area is in a liquefaction zone. Subsequently, soils have a high potential of for instability and liquefaction, especially when disturbed and during rainy/wet periods. Many of the features of this alternative are designed for human use such as the promenades, parks, and pedestrian bridges. As such, these types of facilities would be designed to ensure public safety. Site specific geologic and soil investigations should be conducted and the results would be taken into consideration during the design of specific revitalization measures as projects are implemented.

Disturbed soils at project sites would be subject to erosion from wind and rain. Extensive erosion and subsequent impacts to air and water quality could occur due to considerable ground clearing and earth work involved with this alternative. A stormwater pollution control plan should be developed for each project that included best management practices to help control erosion and loss of soil. Best management practices would include such measures as the use of silt fencing, hay bales, settling basins, and the wetting down of exposed soils to control dust.

4.4.3.2 Potential Impacts – Alternative CP-B
Impacts from Alternative CP-B would be similar to Alternative CP-A except they would be slightly greater due to the increased width of the terracing, expansion of the riverfront park, and the daylighting of the underground portion of Arroyo Calabasas in the Topanga Plaza Shopping Center parking lot. As with Alternative CP-A, work would occur in a liquefaction zone.

As with Alternative CP-A, disturbed soils at project sites would be highly vulnerable to erosion from wind and rain. Extensive erosion and subsequent impacts to air and water quality could occur, especially since this alternative would necessitate extensive amounts of ground clearing and earth work. Soils would be subject to erosion until construction is complete and vegetation becomes re-established. A stormwater pollution control plan would be developed that includes best management practices to help control erosion and loss of soil.
4.4 Geology, Soils, and Seismic Hazards

4.4.3.3 Evaluation of Impact Levels – Alternatives CP-A and CP-B

For future projects within this opportunity area implementing either alternative, with the incorporation of appropriate soil erosion control measures, such as those described below in Section 4.4.9, and using design criteria that account for potential geologic hazards and being in a liquefaction zone, significant impacts would be avoided, and the level of impacts would be expected to range from moderate to high. There is the potential for high impact levels of soil erosion from wind and stormwater runoff. Eroded soils could adversely affect water quality in the river and cause accretion problems downstream. High winds during dry periods could cause dust to be generated, creating air quality concerns. There is also the potential of high impact levels due to much of the construction being in a liquefaction zone. Appropriate stabilization and design methods would need to be implemented to keep potential impacts to less than significant levels.

4.4.4 River Glen Opportunity Area

The River Glen Opportunity Area is at the bend where the Los Angeles River heads south at Griffith Park. A description of the two alternatives discussed in the LARRMP for this opportunity area can be found in section 2.4.1 and 2.4.3. Below is a discussion of the anticipated geologic, soil, and seismic hazard related impacts for each alternative.

4.4.4.1 Potential Impacts – Alternative RG-A

Work for this alternative includes expanding the wetland area at Verdugo Wash, terracing the river, and developing green streets, promenades, pedestrian bridges, trails, and parks. Construction, especially creation of wetlands and terracing of the river, would necessitate a substantial amount of earth work including the excavation of soils and concrete. Buildings would be demolished. The need for blasting of rock is fairly high in this area. There are also a number of freeway overpasses at the site.

The site is a fairly seismically active area and is in a liquefaction zone. Subsequently, soils have a high potential for instability and liquefaction, especially when disturbed and during rainy/wet periods. Several mapped faults are on the east side of the river. Many of the features of this alternative are designed for human use such as the promenades, parks, and pedestrian bridges. On this basis, these types of facilities should be designed and sited to ensure public safety. Site specific geologic and soil investigations should be conducted and the results should be used in feature design.

Disturbed soils at project sites would be subject to erosion from wind and rain. Extensive erosion and subsequent impacts to air and water quality could occur due to considerable ground clearing and earth work involved with this alternative. A stormwater pollution control plan should be developed for each project that included best management practices to help control erosion and loss of soil. Best management practices would include such measures as the use of silt fencing, hay bales, settling basins, and the wetting down of exposed soils to control dust.

4.4.4.2 Potential Impacts – Alternative RG-B

Alternative RG-B is similar to Alternative RG-A except: (1) Verdugo Wash would be realigned to enter the Los Angeles River further downstream creating a small island; (2) the east bank of the river would be terraced to provide a series of “street end” parks and water quality treatment terraces; (3) a water quality riverine habitat area would be developed east of I-5 (Golden State Freeway) to bring the river more into Griffith Park; and (4) there would be a greater emphasis on water quality enhancement measures.
These additional features would considerably increase the amount of excavation and related earth work at the site as compared to Alternative RG-A. Also, as is the case with Alternative RG-A, work would occur near mapped faults and in a liquefaction zone. This would necessitate additional precautions to ensure public safety and to avoid the potential for significant seismic effects.

As with Alternative RG-A, disturbed soils at project sites would be highly vulnerable to erosion from wind and rain. Extensive erosion and subsequent impacts to air and water quality could occur, especially since this alternative would necessitate extensive amounts of ground clearing and earth work. Soils would be subject to erosion until construction is complete and vegetation becomes re-established. A stormwater pollution control plan would be developed that includes best management practices to help control erosion and loss of soil.

4.4.4.3 Evaluation of Impact Levels – Alternatives RG-A and RG-B
For future projects within this opportunity area implementing either alternative, with the incorporation of appropriate soil erosion control measures such as those described below in Section 4.4.9, and using design criteria that account for potential geologic hazards and being in a liquefaction zone, significant impacts would be avoided, and the level of impacts would be expected to range from moderate to high. There is the potential for high impact levels of soil erosion from wind and stormwater runoff. Eroded soils could adversely affect water quality in the river and cause accretion problems downstream. High winds during dry periods could cause dust to be generated, creating air quality concerns. There is also the potential of high impact levels due to much of the construction being in a liquefaction zone. Appropriate stabilization and design methods would need to be implemented to keep potential impacts to less than significant levels.

4.4.5 Taylor Yard Opportunity Area
The Taylor Yard Opportunity Area is south of the River Glen Opportunity site at the Glendale Freeway (SR-2). A description of the configuration of river channel modification, open space development, and reinvestment measures proposed in the LARRMP for this opportunity area can be found in sections 2.4.1 and 2.4.4. Below is a discussion of the anticipated soil, geologic, and seismic related impacts associated with implementing the proposed measures.

4.4.5.1 Potential Impacts
Construction of future LARRMP projects at this opportunity area would include terracing the river channel, developing parks, green streets, pedestrian bridges, trails, promenades, and creating water quality enhancement measures. Work would involve a substantial amount of earth moving, including the excavation of soils and concrete. Buildings might also need to be demolished.

Several mapped faults occur just to the north of the opportunity area, although the area is not within an Alquist-Priolo Special Studies Zone. The opportunity area is also in an area with liquefaction potential. Many of the future projects that would implement the configuration of revitalization measures proposed at this opportunity area are designed for human use. These include promenades, parks, and pedestrian bridges. These types of facilities should be designed and sited to ensure public safety. Site specific geologic and soil investigations should be conducted for each future project, and the results used in the design of project features as appropriate.

Future projects would create disturbed soils, which could be subject to erosion from wind and rain. Extensive erosion and subsequent impacts to air and water quality could occur, especially since this alternative would...
necessitate extensive amounts of ground clearing and earth work. Soils would be subject to erosion until construction is complete and vegetation becomes re-established. A stormwater pollution control plan should be developed for each future project that includes best management practices to help control erosion and loss of soil.

4.4.5.2 Evaluation of Impact Levels
For future projects within this opportunity area, with the incorporation of appropriate soil erosion control measures such as those described below in Section 4.4.9, and using design criteria that account for potential geologic hazards and being in a liquefaction zone, significant impacts would be avoided, and the level of impacts would be expected to range from moderate to high. There is the potential for high impact levels of soil erosion from wind and stormwater runoff. Eroded soils could adversely affect water quality in the river and cause accretion problems downstream. High winds during dry periods could cause dust to be generated, creating air quality concerns. There is also the potential of high impact levels due to much of the construction being in a liquefaction zone. Appropriate stabilization and design methods would need to be implemented to keep potential impacts to less than significant levels.

4.4.6 Chinatown-Cornfields Opportunity Area
The Chinatown-Cornfields Opportunity Area includes the recently opened Los Angeles State Historic Park and is just south of Dodger Stadium. A description of the two alternatives discussed in the LARRMP for this opportunity area can be found in section 2.4.1 and 2.4.5. Below is a discussion of the anticipated soil, geologic and seismic-related impacts for each of these alternatives.

4.4.6.1 Potential Impacts – Alternative CC-A
Alternative CC-A includes terracing the river channel, developing parks, green streets, pasoes and promenades, trails, pedestrian bridge, and water quality enhancement measures. Construction of future projects would include a substantial amount of earth work, including excavation of soils and concrete. No faults are mapped in the area; however the site is in a potential liquefaction area. Subsequently, soils have a high potential for instability and liquefaction, especially when disturbed and during rainy/wet periods. Many of the features of this alternative would be designed for human use such as the promenades, parks, and pedestrian bridges. These types of facilities should be designed to ensure public safety. Site specific geologic and soil investigations would be conducted for each future project, and the results used in the design of these features.

As future projects are undertaken, disturbed soils from construction activities would be subject to erosion from wind and rain. Extensive erosion and subsequent impacts to air and water quality could occur due to considerable ground clearing and earth work involved with this alternative. A stormwater pollution control plan should be developed for each project that involves use of best management practices to help control erosion and loss of soil. Best management practices would include such measures as the use of silt fencing, hay bales, settling basins, and the wetting down of exposed soils to control dust.

4.4.6.2 Potential Impacts – Alternative CC-B
Alternative CC-B is similar to Alternative CC-A, except an island would be created in the river. Creating an island would necessitate a substantial amount of earthwork to construct a bypass channel. Design of the channel would require soil and geologic investigations to determine such things as the need for blasting of
4.4 Geology, Soils, and Seismic Hazards

rock and the depth to groundwater. The results of these investigations should be used to develop appropriate design criteria for project structures.

As with Alternative CC-A, disturbed soils at project sites would be highly vulnerable to erosion from wind and rain. Extensive erosion and subsequent impacts to air and water quality could occur, especially since this alternative would necessitate extensive amounts of ground clearing and earth work. Soils would be subject to erosion until construction is complete and vegetation becomes re-established. A stormwater pollution control plan would be developed that includes best management practices to help control erosion and loss of soil.

4.4.6.3 Evaluation of Impact Levels – Alternatives CC-A and CC-B
For future projects within this opportunity area implementing either alternative, with the incorporation of appropriate soil erosion control measures such as those described below in Section 4.4.9, and using design criteria that account for potential geologic hazards and being in a liquefaction zone, significant impacts would be avoided, and the level of impacts would be expected to range from moderate to high. There is the potential for high impact levels of soil erosion from wind and stormwater runoff. Eroded soils could adversely affect water quality in the river and cause accretion problems downstream. High winds during dry periods could cause dust to be generated, creating air quality concerns. There is also the potential of high impact levels due to much of the construction being in a liquefaction zone. Appropriate stabilization and design methods would need to be implemented to keep potential impacts to less than significant levels.

4.4.7 Downtown Industrial Opportunity Area
The Downtown Industrial Opportunity Area is in a highly urbanized/developed area. A description of the two alternatives discussed in the LARRMP for this opportunity area can be found in section 2.4.1 and 2.4.6. Below is a discussion of the anticipated soil, geologic, and seismic-related impacts for each of the alternatives.

4.4.7.1 Potential Impacts – Alternative DI-A
Alternative DI-A includes terracing the river channel, developing parks, green streets, pasoes and promenades, trails, and pedestrian underpasses. Construction of future projects would necessitate a substantial amount of earth work including excavation of soils and concrete. No faults are mapped in the area, and the opportunity area is not in a liquefaction zone. Since many of the features in future projects would be designed for human use such as the promenades, parks, and pedestrian underpasses, they should be designed to ensure public safety. Also, site-specific geologic and soil investigations should be conducted for all future projects, with the results used to develop appropriate design criteria.

During and in some cases following construction of future projects, disturbed soils would be subject to erosion from wind and rain. Substantial erosion and subsequent impacts to air and water quality could occur due to extensive ground clearing and earth work involved with this alternative. Therefore, a stormwater pollution control plan should be developed for each project that includes best management practices to help control erosion and loss of soil.

4.4.7.2 Potential Impacts – Alternative DI-B
Impacts from Alternative DI-B would be similar to Alternative DI-A, except they would be to a slightly greater degree because of increased terracing of the river channel, additional parkland, and the relocation/consolidation of railroad tracks.
Disturbed soils at project sites would be subject to erosion from wind and rain. Substantial erosion and subsequent impacts to air and water quality could occur, especially since this alternative would necessitate extensive amounts of ground clearing and earth work. Soils would be subject to erosion until construction is complete and vegetation becomes re-established. A stormwater pollution control plan would be developed that includes best management practices to help control erosion and loss of soil.

**4.4.7.3 Evaluation of Impact Levels – Alternatives DI-A and DI-B**

For future projects within this opportunity area implementing either alternative, with the incorporation of appropriate soil erosion control measures, such as those described below in Section 4.4.9, and using design criteria that account for potential geologic hazards and being in a liquefaction zone, significant impacts would be avoided, and the level of impacts would be expected to range from moderate to high. There is the potential for high impact levels of soil erosion from wind and stormwater runoff. Eroded soils could adversely affect water quality in the river and cause accretion problems downstream. High winds during dry periods could cause dust to be generated, creating air quality concerns. There is also the potential of high impact levels due to much of the construction being in a liquefaction zone. Appropriate stabilization and design methods would need to be implemented to keep potential impacts to less than significant levels.

**4.4.8 Mitigation Actions and Best Management Practices**

As specific LARRMP implementation projects are undertaken, site specific geologic and soil investigations should be conducted for each project, and the results used in the proper design of project features. A stormwater pollution control plan should be developed for each project site to include best management practices to help control erosion and soil loss. Design of specific project features should meet current design standards related to seismic hazards; to ensure public safety.

Mitigation actions would be similar at all project locations within the River Corridor and the five opportunity areas. The portion of the River Corridor from Canoga Park downstream to the Chinatown-Cornfields Opportunity Area is in a liquefaction zone. Mapped faults are in the Glendale Narrows, primarily affecting the River Glen Opportunity Area.

The following list of mitigation measures is recommended for all future projects to avoid and minimize potential adverse impacts related to geology, soils, and seismic hazards:

- Soils should be tested at project locations where possible contamination is suspected.
- The DTSC, DHS, and EPA should be contacted to help identify the best soil sampling locations.
- Conforming to Los Angeles Building Code and Planning and Zoning Codes and incorporating proven design criteria into project features that account for potential seismic hazard risks.
- Performing on-site geologic and soil investigations by a licensed geologist.
- Utilizing excavated material to the extent practical.
- Coordinating work with local residents to keep them informed and to minimize conflicts, especially involving road crossings and blasting.
- Coordinating work with state highway and local road departments to ensure the integrity of roads and bridges is maintained, especially at the River Glen Opportunity Area.
• Developing and implementing site-specific erosion control plans that include best management practices.
• Revegetating exposed soils as soon as feasible after grading or construction.

4.4.9 No Project Alternative
Under the No Project Alternative, the LARRMP revitalization measures proposed for future implementation within the 32-mile River Corridor and the five opportunity areas would not occur. Benefits from the project would not come to fruition.
4.5 Hydrology, Floodplain, and Water Quality

4.5.1 Introduction

This section is an evaluation of the impacts on hydrology, floodplains, and water quality from the array of revitalization measures and the particular configuration of measures for the five opportunity areas. Mitigation actions that could be applied to reduce potential adverse impacts on these resources are identified. Potential impacts on these resources associated with the No Project Alternative are also discussed.

4.5.1.1 Regulatory Framework

Numerous environmental laws and regulations govern the water-related resources in the study area. An overview of some of the relevant federal, state, and local regulations and the responsible agencies is presented below.

Federal Laws and Regulations

Clean Water Act

The CWA is the principal law governing pollution control and water quality of the nation's waterways. The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of US waters (33 USC 1251). The CWA has been amended numerous times and has been given a number of titles and codifications. It provides standards and enforcement, a number of regulatory programs with permits and licenses, grants, and revolving funds, as well as general provisions and provisions for research and related programs. The CWA is extensive and has numerous implementing regulations and guidance documents. Below are some of the pertinent components.

Section 401 of the 1972 amendments (33 USC 1341) is discussed below under State Laws and Regulations.

Section 402 of the 1972 amendments (33 USC 1342) establishes conditions and permitting for discharges of pollutants under the National Pollution Discharge Elimination System (NPDES). Point source discharge of pollutants into navigable water is regulated through the NPDES. Stormwater permits are issued by the states if they have an authorized NPDES stormwater permit program or by the USEPA for areas not covered by an authorized state program.

Section 404 (33 USC 1344) authorizes a separate permit program for disposing of dredged or fill material in the nation’s waters, to be administered by the Secretary of the Army, acting through the Chief of Engineers. Under Section 404 of the amended act, the Corps retains primary responsibility for permits to discharge dredged or fill material into waters of the United States. Under the program, permits are issued, after a period of notice and opportunity for public hearings for disposing of such material at specified sites. Sites are to be selected in compliance with guidelines developed by the USEPA in conjunction with the Secretary of the Army. The USEPA is authorized to forbid or restrict the use of specified areas whenever it determines that disposal of material at a specific site would have an unacceptable adverse effect on municipal water supplies, shellfish, and fishery areas or on recreational activities.

Implementation of any of the LARRMP revitalization measures would most likely be regulated under Sections 401, 402, and 404 of the CWA. Since the Corps is the lead federal agency for this project, it would be responsible for ensuring compliance under Section 404. A section 401 State Water Quality Certification or
A waiver would most likely be required from the California Regional Water Quality Control Board. The board would also oversee stormwater management issues related to Section 402 of the CWA.

**Flood Control Act**

Section 4 of this act authorizes the Corps, under the supervision of the Secretary of the Army, to construct, maintain, and operate public park and recreational facilities at water resources development projects (16 USC 460[d]). Local interests are also permitted to construct, operate, and maintain such facilities with permission from the Secretary of the Army. Water areas of all such projects shall be open to public use generally for boating, swimming, fishing, and other recreational purposes, and ready access to and exit from such water areas along the shores of such reservoirs shall be maintained for general public use, when such use is not found to be contrary to the public interest. The lease of public lands and structures at water projects is also authorized. Recreational uses must be consistent with state laws for protecting fish and game. Amendments to this act extend the development of recreation to projects that do not involve reservoirs.

**National Flood Insurance Act**

This act established the federal flood insurance program, prior to which, affordable private flood insurance was generally not available. Under the National Flood Insurance Program, federally subsidized flood insurance is made available to owners of flood-prone property in participating communities. Administered by the Federal Insurance Administration of the Federal Emergency Management Agency (FEMA), participating communities are required to adopt certain minimum floodplain management standards, including restrictions on development in designated floodways, a requirement that new structures in the 100-year flood zone be elevated to or above the 100-year flood level (known as base flood elevation), and a requirement that subdivisions are designed to minimize exposure to flood hazards (NOAA 2006). Any work that may affect the flood elevations would be coordinated with FEMA.

**Executive Orders (EO)**

There is one EO related to floodplains that should also be complied when planning and implementing LARRMP projects continues. EO 11988, Floodplain Management, was issued on May 24, 1977, to avoid to the extent possible the long- and short-term adverse impacts of occupying and modifying floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative.

**State Laws and Regulations**

**Porter-Cologne Water Quality Control Act**

The Porter-Cologne Water Quality Control Act establishes the State Water Resources Control Board (WRCB), which has the ultimate authority over state water rights and water quality policy. It also establishes nine regional boards to oversee water quality on a day-to-day basis at the local or regional level. The regional boards develop and update their respective basin plans, which are used to address beneficial uses, water quality standards for both surface water and groundwater, and measures necessary to control point and nonpoint sources. The regional boards regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. Under the auspices of the USEPA, the WRCB grants NPDES permits (CERES 2006). The Porter-Cologne Act also applies to nonpoint as well as point source discharges. It establishes an administrative permitting authority, in the form of waste discharge requirements, waiver of these requirements, or basin plan prohibitions, to be used to control nonpoint source discharges (California Regional Water Quality Control Board 2004). Stormwater management plans and authorizations would be
coordinated with the Los Angeles Regional Water Quality Control Board, along with the City and County of Los Angeles.

**Regional Water Quality Control Board 401 Permit Process**

Section 401 of the Clean Water Act grants each state the right to ensure that the state’s interests are protected on any federally permitted activity occurring in or adjacent to Waters of the State. In California, the Regional Water Quality Control Boards are the agencies mandated to ensure protection of the California waters. So, if a proposed project requires a Corps of Engineers Section 404 permit, falls under other federal jurisdiction, or has the potential to impact Waters of the State, the Regional Water Quality Control Board will regulate the project and associated activities through a water quality certification determination. The purpose of the certification is to verify that the project activities comply with state water quality standards (North Coast Regional Water Quality Control Board 2006). A Section 401 water quality certification or waiver would most likely be required for in-water work associated with the LARRMP.

**Local Regulations**

In December 2001, the Los Angeles Regional Water Quality Control Board issued a Municipal Stormwater NPDES Permit (No. CAS004001) that requires new development and redevelopment projects to incorporate stormwater mitigation measures. Depending on the type of project, either a standard urban stormwater mitigation plan or a site-specific mitigation plan is required to reduce the quantity and improve the quality of rainfall runoff that leaves a project site. In the City of Los Angeles, the Watershed Protection Division administers the program (City of Los Angeles 2006). Stormwater pollution control plans would be coordinated with the City and County of Los Angeles.

**4.5.1.2 Approach and Methodology**

The various LARRMP river channel modification and open space development measures were evaluated to determine if they would degrade or adversely affect and to what degree they would affect surface water hydrology, water quality, and groundwater if they were constructed in the River Corridor. The impacts from construction and use of project sites were considered. As planning for the development of future projects progresses, suitable hydrologic modeling and other studies should be conducted to determine and assess potential hydrological and hydraulic effects of alternative designs in the affected areas. Best management practices should be incorporated into the construction and design of the site to ensure compliance with state water quality standards and to improve the water quality of surface water runoff to the extent possible. Best management practices can include using siltation fences, hay bales, and settling basins and seeding exposed soils.

**4.5.1.3 Significance Criteria**

The following thresholds of significance are based on the City of Los Angeles CEQA Thresholds Guidelines (City of Los Angeles 1998). They were developed to evaluate potential impacts on surface water hydrology, water quality, and groundwater during the construction and use of future projects. A future project would be considered to have a significant impact if it were to involve the following:

- Cause flooding during the projected 50-year developed storm, which would have the potential to harm people or damage property or sensitive biological resources;
- Substantially reduce or increase the amount of surface water in a water body;
4.5 Hydrology, Floodplain, and Water Quality

- Result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow;
- Create pollution, contamination, or nuisance, as defined in Section 13050 of the California Water Code;
- Cause regulatory standards to be violated, as defined in the applicable NPDES stormwater permit or water quality control plan for the receiving water body;
- Change potable water levels sufficiently to
  - Reduce the ability of a water utility to use the groundwater basin for public water supplies, conjunctive use purposes, imported water storage, summer/winter peaking, or to respond to emergencies and drought,
  - Reduce yields of adjacent wells or well fields (public or private), or
  - Adversely change the rate or direction of flow of groundwater; or
- Result in demonstrable and sustained reduction of groundwater recharge capacity.

4.5.2 Potential Impacts Associated with LARRMP River Channel Modification and Open Space Development Measures in the River Corridor

This section presents impacts on surface water hydrology, water quality, and groundwater related to implementing the LARRMP measures described in Sections 2.2 and 2.3 (river channel modifications and open space development).

4.5.2.1 River Channel Modification Measures

There are two types of river channel modification measures discussed in the LARRMP: those that do not reduce river flow velocity and those that do. Potential impacts and mitigations associated with these two types of channel modifications are discussed below.

Without Flow Velocity Reduction Type

For channel modifications that do not reduce flow velocity (see Section 2.2.2), vegetative cover would be increased up to 30 percent within the channel ROW, and intermittent habitat would be developed along the river bottom. Greening measures also include enhancing water quality treatment of stormwater outfalls by developing vegetative bio-swales and bio-filtration areas.

LARRMP goals and objectives include improving the aesthetics, recreational use, water quality, and ecological productivity of the river corridor, while maintaining or improving flood protection. Flood control channels, like much of the Los Angeles River, are designed to move stormwater rapidly and efficiently. Flood control basins like Sepulveda Basin are designed to impound flood waters so they can be released in a controlled manner to avoid flooding downstream. Most of the study area is outside the 100-year floodplain except for the river channel itself (below the top of the river bank) and Sepulveda Basin.

Increasing in-channel vegetation and creating vegetative bio-swales and bio-filtration areas would help improve water quality. Vegetation helps to filter out pollutants. Bacteria and other microbes then have the opportunity to break down pollutants. The sources of the pollutants still would need to be addressed, but
treating stormwater runoff with bio-swales and bio-filtration areas would help the City and County meet TMDLs and other NPDES requirements.

Trash, such as bags, clothes, and plastic bottles, in the Los Angeles River is also a concern to many people. Trash washes off area streets into storm drains and then eventually into the river. Installing trash racks and booms to catch the material could help control this pollution, but trash racks and booms must be periodically cleaned and the material hauled to area landfills. Public education could also help inform people that trash they throw on the ground often makes its way into area streams and rivers.

Vegetation and infiltration areas outside the river channel would decrease the amount of impermeable surface area and help reduce runoff water velocities. Slowing down this runoff allows the water to soak into the ground and recharge groundwater supplies. Allowing the water to soak into the ground also aids in decreasing runoff volumes, peak discharge rates, and the magnitude, frequency, and duration of bankfull and flash flows.

Future LARRMP construction sites could increase sedimentation and erosion rates by removing vegetation and concrete. Disturbed soils are then subject to erosion from wind and runoff. Extensive erosion and subsequent impacts to air and water quality could occur due to the extensive amount of ground clearing and earth work involved with the project. A stormwater pollution control plan should be developed for each future project that includes best management practices to help control erosion and loss of soil.

**With Flow Velocity Reduction Type**

For channel modifications with flow reduction (see Section 2.2.3), vegetative cover would be increased by up to 50 percent within the channel ROW, and more continuous habitat would be developed along the river bottom. Work would also include measures to reduce water velocity, such as constructing underground linear culverts parallel and adjacent to the river. Increasing the amount of vegetation in the channel and reducing water velocities would improve water quality and the ecological productivity of the river, along with improving the aesthetics and recreational use of the area.

If properly designed, flow reduction measures, such as using off-channel attenuation areas, widening and terracing the channel, and piping high water flows, can improve on existing flood protection levels and the ecological productivity of the river. It is thus important that changes to the river channel be designed with these considerations.

As with the without-flow velocity reduction types, disturbed soils at project sites would be subject to erosion from wind and rain. Extensive erosion and subsequent impacts to air and water quality could occur, especially since this alternative would necessitate considerable amounts of ground clearing and earth work. Soils would be subject to erosion until construction is complete and vegetation becomes re-established. A stormwater pollution control plan would be developed that includes best management practices to help control erosion and loss of soil.

Increased vegetation in the channel would also increase the amount of woody material and vegetative debris that could be washed downstream during high water events. This material would likely get caught on bridge pilings and inhibit water flow. Increased sedimentation would be expected if vegetation is uprooted. When the vegetation planting plan is developed, these factors would be taken into consideration. The operation and maintenance plan should include provisions for addressing debris jams.
4.5.2.2 Open Space Development Measures
As discussed in Section 2.3, open space development measures include greenway connections, expansions, and extensions. More specifically, they include the development of parks, green streets, paseos and promenades, trails and bikeways, pedestrian river crossings, river loops, gateways, and water quality and habitat improvements.

Open space, parks, recreation fields, and pedestrian trails are the types of features that can generally be located in flood hazard areas. Typically, these types of features do not adversely affect floodplain elevations. These types of areas can be inundated by flood waters with minimal damage. River crossings would need to be designed so as to not impede high water flows (sufficient span and height). Parks and green streets would help to reduce the amount of impermeable surface area, allowing rainwater to soak into the ground and recharge groundwater supplies. Water quality and habitat improvements, such as bio-swales and filtration areas, would help improve water quality by filtering stormwater.

Exposed soils during construction can erode and adversely affect water quality. Often, recreational fields, especially golf courses, can create water quality concerns due to the amount of fertilizer and pesticides used. Minimizing the use of fertilizers and pesticides and designing the facilities to control and treat stormwater on-site can help reduce these potential impacts.

Project features that attract people to the river could also result in more trash being thrown on the ground, eventually making its way into area streams and the Los Angeles River. Trash buries vegetation and wildlife can ingest or get entangled in it. Trash adversely affects public health and aesthetics. There is also a cost to taxpayers to remove and dispose of the trash. The trash boom in Long Beach catches much of the trash (hundreds of tons annually), but a lot of the trash makes its way to the ocean and area beaches.

4.5.2.3 Potential Impact Levels
With the use of appropriate mitigation as discussed in section 4.5.8, potential impacts from implementation of the river modification and open space measures would range from low to high. There is also the potential for high and potentially significant adverse impacts on water quality due to soil erosion from wind and stormwater runoff. Disturbed soils would need to be stabilized and best management practices implemented to reduce potential impacts on water quality to less than significant levels. Additional trash entering the river from increased recreational activity would likely have low to moderate adverse impacts on public health and aesthetics. Low to moderate impacts are also anticipated from vegetation becoming uprooted during high water events and becoming entangled on bridge pilings and restricting water flow. Proposed LARRMP river channel modification and open space development measures would also be expected to have low to moderate beneficial impacts on water quality. Project-specific water quality studies and impact analyses should be conducted to properly account for potential water pollution in future implementation project areas within the River Corridor. In addition to accounting for potential adverse impacts on biological resources during construction of the velocity-reducing channel modification measures, the project-specific water quality studies should address any potential long term impacts to water quality and habitat caused by transitioning storm flows into and out of culverts from the channel.

4.5.3 Canoga Park Opportunity Area
The Canoga Park Opportunity Area is where Bell Creek and Arroyo Calabasas converge to form the Los Angeles River. A description of the two alternative configurations of river channel modification, open space
development, and reinvestment measures considered in the LARRMP for this opportunity area can be found in Sections 2.4.1 and 2.4.2 of this PEIR/PEIS. Below is a discussion of the anticipated surface water hydrology and water quality impacts for each of these alternatives.

4.5.3.1 Potential Impacts—Alternative CP-A

Alternative CP-A includes terracing the river channel, developing parks, green streets, paseos and promenades, trails, pedestrian bridges, and water quality enhancement measures. Terracing the river banks and creating more open space in and adjacent to the 100-year floodplain could help improve the system’s ability to control floods. Also, planting woody vegetation and altering the channel design could adversely affect the channel’s ability to move flood waters. Vegetation can be uprooted during high water, compromising the stability of the shoreline and flood control structures. Increased sedimentation would be expected if vegetation is uprooted. Vegetation can also get caught on bridge pilings and inhibit water flow. Therefore, work within the 100-year floodplain on future projects should be coordinated closely with FEMA, the Corps, the City of Los Angeles, and the County of Los Angeles to ensure flood protection is maintained or enhanced. When the vegetation planting plan is developed, these types of factors should be taken into consideration. The operation and maintenance plan would also include provisions for addressing debris jams and sedimentation. Increasing in-channel vegetation and creating vegetative bio-swales and bio-filtration areas would help improve water quality (see Section 4.5.2.1). However, project features that attract people to the river could also result in more trash being thrown on the ground, eventually making its way into area streams and the Los Angeles River. Trash buries vegetation and wildlife can ingest or get entangled in it. Trash adversely affects public health and aesthetics. There is also a cost to tax payers to remove and dispose of the trash. Future LARRMP construction sites within the Canoga Park Opportunity Area could increase sedimentation and erosion rates by removing vegetation and concrete. Disturbed soils are then subject to erosion from wind and rain. Sediment can make its way into area streams and rivers, deteriorating water quality and creating accretion issues. A stormwater pollution control plan with best management practices should be developed for each future project to help control erosion and loss of soil.

Open space, parks, recreation fields, and pedestrian trails are the types of features that can generally be located in flood hazard areas and typically do not adversely affect floodplain elevations. These types of areas can be inundated by flood waters with minimal damage. River crossings would need to be designed with sufficient span and height so as to not impede high water flows. Parks and green streets help to reduce the amount of impermeable surface area, allowing rainwater to soak into the ground and recharge groundwater supplies. Water quality and habitat improvements, such as bio-swales and filtration areas, would help improve water quality by filtering stormwater.

Exposed soils during construction could erode and adversely affect water quality. Sometimes recreational developments can create water quality concerns due to the amount of fertilizer and pesticides used. Minimizing the use of fertilizers and pesticides, along with designing the facilities to control and treat stormwater on-site, can help reduce these potential impacts.

4.5.3.2 Potential Impacts—Alternative CP-B

Impacts and potential effects from Alternative CP-B are similar to those from Alternative CP-A. Additional work under Alternative CP-B includes increasing the width of the terracing, expanding the riverfront park, and daylighting the underground portion of Arroyo Calabasas in the Topanga Plaza Shopping Center parking lot. Terracing the river could improve flood and water quality benefits. Expanding the park would help
reduce the amount of impermeable surface area. Future projects should be designed to convey adequate flood waters, while providing water quality and habitat benefits.

**4.5.3.3 Evaluation of Impact Levels—Alternatives CP-A and CP-B**

With the use of appropriate mitigation as discussed in section 4.5.8, potential impacts from implementation of either of the alternative configurations of revitalization and reinvestment measures would range from low to high. There is also the potential for high and potentially significant adverse impacts on water quality due to soil erosion from wind and stormwater runoff. Disturbed soils would need to be stabilized and best management practices implemented to reduce potential impacts on water quality to less than significant levels. Additional trash entering the river from increased recreational activity would likely have low to moderate adverse impacts on public health and aesthetics. Low to moderate impacts are also anticipated from vegetation becoming uprooted during high water events and becoming entangled on bridge pilings and restricting water flow. Some of the proposed LARRMP revitalization measures would also be expected to have low to moderate beneficial impacts on water quality.

**4.5.4 River Glen Opportunity Area**

The River Glen Opportunity Area is at the bend where the Los Angeles River heads south at Griffith Park. A description of the two alternative configurations of river channel modification, open space development, and reinvestment measures considered in the LARRMP for this opportunity area can be found in Sections 2.4.1 and 2.4.3 of this PEIR/PEIS. Below is a discussion of the anticipated surface water hydrology and water quality impacts for each of these alternatives.

**4.5.4.1 Potential Impacts—Alternative RG-A**

Alternative RG-A includes terracing the river channel, developing parks, green streets, paseos and promenades, trails, pedestrian bridges, and water quality enhancement measures. Terracing the river banks and creating more open space in and adjacent to the 100-year floodplain could help improve the system’s ability to control floods. Also, planting woody vegetation and altering the channel design could adversely affect the channel’s ability to move flood waters. Vegetation can be uprooted during high water, compromising the stability of the shoreline and flood control structures. Increased sedimentation would be expected if vegetation is uprooted. Vegetation can also get caught on bridge pilings and inhibit water flow. Therefore, work within the 100-year floodplain on future projects should be coordinated closely with FEMA, the Corps, the City of Los Angeles, and the County of Los Angeles to ensure flood protection is maintained or enhanced. When the vegetation planting plan is developed, these types of factors should be taken into consideration. The operation and maintenance plan should also include provisions for addressing debris jams and sedimentation.

Increasing in-channel vegetation and creating vegetative bio-swales and bio-filtration areas would help improve water quality (see Section 4.5.2.1). However, project features that attract people to the river could result in more trash being thrown on the ground, eventually making its way into area streams and the Los Angeles River. Trash buries vegetation and wildlife can ingest or get entangled in it. Trash adversely affects public health and aesthetics. There is also a cost to tax payers to remove and dispose of the trash.

Future LARRMP construction sites within the River Glen Opportunity Area could increase sedimentation and erosion rates by removing vegetation and concrete. Disturbed soils are then subject to erosion from wind and rain. Sediment can make its way into area streams and rivers, deteriorating water quality and creating
4.5 Hydrology, Floodplain, and Water Quality

accretion issues. A stormwater pollution control plan that includes best management practices should be
developed for each future project to help control erosion and loss of soil.

Open space, parks, recreation fields, and pedestrian trails are the types of features that can generally be
located in flood hazard areas. Typically, these types of features do not adversely affect floodplain elevations.
These types of areas can be inundated by flood waters with minimal damage. River crossings would need to
be designed with sufficient span and height so as to not impede high water flows. Parks and green streets help
to reduce the amount of impermeable surface area, allowing rainwater to soak into the ground and recharge
groundwater supplies. Water quality and habitat improvements, such as bio-swales and filtration areas, would
help improve water quality by filtering stormwater.

Exposed soils during construction could erode and adversely affect water quality. Sometimes recreational
developments can create water quality concerns due to the amount of fertilizer and pesticides used.
Minimizing the use of fertilizers and pesticides, along with designing the facilities to control and treat
stormwater on-site, can help reduce these potential impacts.

4.5.4.2 Potential Impacts—Alternative RG-B

Alternative RG-B is similar to Alternative RG-A except as follows:

- Verdugo Wash would be realigned to enter the Los Angeles River farther downstream, creating a
  small island;
- The east bank of the river would be terraced to provide a series of street end parks and water quality
  treatment terraces;
- A water quality riverine habitat area would be developed to the east of I-5 (Golden State Freeway) to
  bring the river more into Griffith Park; and
- There would be a greater emphasis on water quality enhancement measures.

These additional features would provide greater water quality benefits, but they would necessitate additional
engineering and hydrologic modeling to ensure existing flood protection is maintained or enhanced.

4.5.4.3 Evaluation of Impact Levels—Alternatives RG-A and RG-B

With the use of appropriate mitigation as discussed in section 4.5.8, potential impacts from implementation
of either of the alternative configurations of revitalization and reinvestment measures would range from low
to high. There is also the potential for high and potentially significant adverse impacts on water quality due to
soil erosion from wind and stormwater runoff. Disturbed soils would need to be stabilized and best
management practices implemented to reduce potential impacts on water quality to less than significant levels.
Additional trash entering the river from increased recreational activity would likely have low to moderate
adverse impacts on public health and aesthetics. Low to moderate impacts are also anticipated from
vegetation becoming uprooted during high water events and becoming entangled on bridge pilings and
restricting water flow. Some of the proposed LARRMP revitalization measures would also be expected to
have low to moderate beneficial impacts on water quality.
4.5.5 Taylor Yard Opportunity Area

The Taylor Yard Opportunity Area is south of the River Glen Opportunity area at the Glendale Freeway (SR-2). A description of the proposed configuration of river channel modification, open space development, and reinvestment measures for this opportunity area can be found in Sections 2.4.1 and 2.4.4. Below is a discussion of the potential surface water hydrology and water quality impacts.

4.5.5.1 Potential Impacts

Proposed revitalization measures include terracing the river channel, developing parks, green streets, paseos and promenades, trails, pedestrian bridges, and water quality enhancement measures. Terracing the river banks and creating more open space in and adjacent to the 100-year floodplain could help improve the system’s ability to control floods. Also, planting woody vegetation and altering the channel design could adversely affect the channel’s ability to move flood waters. Vegetation can be uprooted during high water, compromising the stability of the shoreline and flood control structures. Increased sedimentation would be expected if vegetation is uprooted. Vegetation can also get caught on bridge pilings and inhibit water flow. Therefore, work within the 100-year floodplain on future projects should be coordinated closely with FEMA, the Corps, the City of Los Angeles, and the County of Los Angeles to ensure flood protection is maintained or enhanced. When the vegetation planting plan is developed, these types of factors should be taken into consideration. The operation and maintenance plan should also include provisions for addressing debris jams and sedimentation.

Increasing in-channel vegetation and creating vegetative bio-swales and bio-filtration areas would help improve water quality (see Section 4.5.2.1). However, project features that attract people to the river could result in more trash being thrown on the ground, eventually making its way into area streams and the Los Angeles River. Trash buries vegetation and wildlife can ingest or get entangled in it. Trash adversely affects public health and aesthetics. There is also a cost to tax payers to remove and dispose of the trash.

Future LARRMP construction sites within the Taylor Yard Opportunity Area could increase sedimentation and erosion rates by removing vegetation and concrete. Disturbed soils then would be subject to erosion from wind and rain. Sediment makes its way into area streams and rivers, deteriorating water quality and creating accretion issues. A stormwater pollution control plan that includes best management practices should be developed for each future project to help control erosion and loss of soil.

Open space, parks, recreation fields, and pedestrian trails are the types of features that can generally be located in flood hazard areas. Typically, these types of features do not adversely affect floodplain elevations. These types of areas can be inundated by flood waters with minimal damage. River crossings would need to be designed with sufficient span and height so as to not impede high water flows. Parks and green streets help to reduce the amount of impermeable surface area, allowing rainwater to soak into the ground and recharge groundwater supplies. Water quality and habitat improvements, such as bio-swales and filtration areas, would help improve water quality by filtering stormwater.

Exposed soils during construction could erode and adversely affect water quality. Sometimes recreational developments can create water quality concerns due to the amount of fertilizer and pesticides used. Minimizing the use of fertilizers and pesticides and designing the facilities to control and treat stormwater on-site can help reduce these potential impacts.
4.5.5.2 Evaluation of Impact Levels

With the use of appropriate mitigation as discussed in section 4.5.8, potential impacts from implementation of the proposed revitalization and reinvestment measures at this opportunity area would range from low to high. There is also the potential for high and potentially significant adverse impacts on water quality due to soil erosion from wind and stormwater runoff. Disturbed soils would need to be stabilized and best management practices implemented to reduce potential impacts on water quality to less than significant levels. Additional trash entering the river from increased recreational activity would likely have low to moderate adverse impacts on public health and aesthetics. Low to moderate impacts are also anticipated from vegetation becoming uprooted during high water events and becoming entangled on bridge pilings and restricting water flow. Some of the proposed LARRMP revitalization measures would also be expected to have low to moderate beneficial impacts on water quality.

4.5.6 Chinatown-Cornfields Opportunity Area

The Chinatown-Cornfields Opportunity Area includes the recently opened Los Angeles State Historic Park and is just south of Dodger Stadium. A description of the two alternative configurations of river channel modification, open space development, and reinvestment measures considered in the LARRMP for this opportunity area can be found in Sections 2.4.1 and 2.4.5 of this PEIR/PEIS. Below is a discussion of the anticipated surface water hydrology and water quality impacts from each of these alternatives.

4.5.6.1 Potential Impacts—Alternative CC-A

Alternative CC-A includes terracing the river channel and developing parks, green streets, paseos and promenades, trails, pedestrian bridges, and water quality enhancement measures. Terracing the river banks and creating more open space in and adjacent to the 100-year floodplain could help improve the system’s ability to control floods. Also, planting woody vegetation and altering the existing channel design could adversely affect the channel’s ability to move flood waters. Vegetation can be uprooted during high water, compromising the stability of the shoreline and flood control structures. Increased sedimentation would be expected if vegetation is uprooted. Vegetation can also get caught on bridge pilings and inhibit water flow. Therefore, work within the 100-year floodplain on future projects should be coordinated closely with FEMA, the Corps, the City of Los Angeles, and the County of Los Angeles to ensure flood protection is maintained or enhanced. When the vegetation planting plan is developed, these types of factors should be taken into consideration. The operation and maintenance plan should also include provisions for addressing debris jams and sedimentation.

Increasing in-channel vegetation and creating vegetative bio-swales and bio-filtration areas would help improve water quality (see Section 4.5.2.1). However, project features that attract people to the river could result in more trash being thrown on the ground, eventually making its way into area streams and the Los Angeles River. Trash buries vegetation and wildlife can ingest or get entangled in it. Trash adversely affects public health and aesthetics. There is also a cost to tax payers to remove and dispose of the trash.

A concern at this site is contamination from past commercial and industrial uses. Measures would be taken to ensure that contamination does not pose a health or safety risk.

Future LARRMP construction sites within the Chinatown-Cornfields Opportunity Area could increase sedimentation and erosion rates by removing vegetation and concrete. Disturbed soils are then subject to erosion from wind and rain. Sediment makes its way into area streams and rivers, deteriorating water quality.
and creating accretion issues. A stormwater pollution control plan that includes best management practices should be developed for each future project to help control erosion and loss of soil.

Open space, parks, recreation fields, and pedestrian trails are the types of features that can generally be located in flood hazard areas. Typically, these types of features do not adversely affect floodplain elevations. These types of areas can be inundated by flood waters with minimal damage. River crossings would need to be designed so as to not impede high water flows (sufficient span and height). Parks and green streets help to reduce the amount of impermeable surface area, allowing rainwater to soak into the ground and recharge groundwater supplies. Water quality and habitat improvements, such as bio-swales and filtration areas, would help improve water quality by filtering stormwater.

Exposed soils during construction have the potential for eroding and adversely affecting water quality. Sometimes recreational developments can create water quality concerns due to the amount of fertilizer and pesticides used. Minimizing the use of fertilizers and pesticides, along with designing the facilities to control and treat stormwater on-site, can help reduce these potential impacts.

4.5.6.2 Potential Impacts—Alternative CC-B
Alternative CC-B is similar to Alternative CC-A, except an island would be created in the river. Construction of the island would necessitate substantial engineering and hydraulic analysis to ensure that flood protection is maintained or enhanced.

4.5.6.3 Evaluation of Impact Levels—Alternatives CC-A and CC-B
With the use of appropriate mitigation as discussed in section 4.5.8, potential impacts from implementation of either of the alternative configurations of revitalization and reinvestment measures would range from low to high. There is also the potential for high and potentially significant adverse impacts on water quality due to soil erosion from wind and stormwater runoff. Disturbed soils would need to be stabilized and best management practices implemented to reduce potential impacts on water quality to less than significant levels. Additional trash entering the river from increased recreational activity would likely have low to moderate adverse impacts on public health and aesthetics. Low to moderate impacts are also anticipated from vegetation becoming uprooted during high water events and becoming entangled on bridge pilings and restricting water flow. Some of the proposed LARRMP revitalization measures would also be expected to have low to moderate beneficial impacts on water quality.

4.5.7 Downtown Industrial Opportunity Area
The Downtown Industrial Opportunity Area is in a highly urbanized/developed area. A description of the two alternative configurations of river channel modification, open space development, and reinvestment measures considered in the LARRMP for this opportunity area can be found in Sections 2.4.1 and 2.4.6 of this PEIR/PEIS. Below is a discussion of the anticipated surface water hydrology and water quality impacts for each of these alternatives.

4.5.7.1 Potential Impacts—Alternative DI-A
Alternative DI-A includes terracing the river channel and developing parks, green streets, paseos and promenades, trails, and pedestrian underpasses. Terracing the river banks and creating more open space in and adjacent to the 100-year floodplain could help improve the system’s ability to control floods. Also, planting woody vegetation and altering the channel design could adversely affect the channel’s ability to move
flood waters. Vegetation can be uprooted during high water, compromising the stability of the shoreline and flood control structures. Increased sedimentation would be expected if vegetation is uprooted. Vegetation can also get caught on bridge pilings and inhibit water flow. Therefore, work within the 100-year floodplain on future projects should be coordinated closely with FEMA, the Corps, the City of Los Angeles, and the County of Los Angeles to ensure flood protection is maintained or enhanced. When the vegetation planting plan is developed, these types of factors should be taken into consideration. The operation and maintenance plan should also include provisions for addressing debris jams and sedimentation.

Increasing in-channel vegetation would help improve water quality. Vegetation helps to filter out pollutants. Bacteria and other microbes then have the opportunity to break down pollutants.

Trash, such as bags, clothes, and plastic bottles, in the Los Angeles River is also an important issue. Trash washes off area streets into storm drains and then eventually into the river. Installing trash racks and booms that catch the material would help control this pollution, but trash racks and booms must be periodically cleaned and the material hauled to area landfills. Public education could also help inform people that trash they throw on the ground often makes it way into area streams and rivers.

A concern at this site is contamination from past commercial and industrial uses. Measures would be taken to ensure that contamination does not pose a health or safety risk.

Vegetation areas outside the river channel would decrease the amount of impermeable surface area and help reduce runoff velocities. Slowing down runoff allows the water to soak into the ground and recharge groundwater supplies. Allowing the water to soak into the ground also aids in decreasing runoff volumes, peak-discharge rates, and magnitude, frequency, and duration of bankfull and flash flows.

Future LARRMP construction sites within the Downtown Industrial Opportunity Area could increase sedimentation and erosion rates by removing vegetation and concrete. Disturbed soils are then subject to erosion from wind and rain. Sediment makes its way into area streams and rivers, deteriorating water quality and creating accretion issues. A stormwater pollution control plan that includes best management practices should be developed for each future project to help control erosion and loss of soil.

Open space, parks, recreation fields, and pedestrian trails are the types of features that can generally be located in flood hazard areas. Typically, these types of features do not adversely affect floodplain elevations and can be inundated by flood waters with minimal damage. River crossings would need to be designed with sufficient span and height so as to not impede high water flows. Parks and green streets help to reduce the amount of impermeable surface area, allowing rainwater to soak into the ground and recharge groundwater supplies. Water quality and habitat improvements, such as bio-swales and filtration areas, would help improve water quality by filtering stormwater.

Exposed soils during construction could erode and adversely affect water quality. Sometimes recreational developments can create water quality concerns due to the amount of fertilizer and pesticides used. Minimizing the use of fertilizers and pesticides, along with designing the facilities to control and treat stormwater on-site, can help reduce these potential impacts.
4.5.7.2 Potential Impacts—Alternative DI-B
Alternative DI-B is similar to Alternative DI-A, except there would be increased terracing of the river channel, more parkland, and consolidation of railroad tracks. These additional features would provide greater water quality benefits, but they would necessitate additional engineering and hydrologic modeling to ensure existing flood protection is maintained or enhanced.

4.5.7.3 Evaluation of Impact Levels—Alternatives DI-A and DI-B
With the use of appropriate mitigation as discussed in section 4.5.8, potential impacts from implementation of either of the alternative configurations of revitalization and reinvestment measures would range from low to high. There is also the potential for high and potentially significant adverse impacts on water quality due to soil erosion from wind and stormwater runoff. Disturbed soils would need to be stabilized and best management practices implemented to reduce potential impacts on water quality to less than significant levels. Additional trash entering the river from increased recreational activity would likely have low to moderate adverse impacts on public health and aesthetics. Low to moderate impacts are also anticipated from vegetation becoming uprooted during high water events and becoming entangled on bridge pilings and restricting water flow. Some of the proposed LARRMP revitalization measures would also be expected to have low to moderate beneficial impacts on water quality.

4.5.8 Mitigation Actions and Best Management Practices
The following mitigation measures are recommended for all future projects to avoid and minimize potential adverse impacts related to hydrology, floodplains, and water quality:

- Water quality in the river should be tested at locations where possible contamination is suspected.
- The DTSC, DHS, and EPA should be contacted to help identify the best water quality sampling locations;
- Incorporate best management practices designed to ensure control of potential pollutant loading, consulting with Regional Water Quality Control Board as appropriate;
- Employ the *Stormwater Best Management Practice Handbooks*, published by the California Stormwater Quality Association, and other suitable publications for guidance in designing and implementing project-specific construction Stormwater Management Plans;
- Continue BMPs post-construction to ensure ongoing efficiency and protection of water quality;
- In subsequent construction of Open Space Development Measures such as, walking and bike paths, picnic areas and nearby parking, incorporate the use permeable pavement and other surfaces to reduce stormwater runoff;
- In subsequent construction of Open Space Development Measures, such as recreation fields, golf courses, and other landscaped areas, specific measures should be developed to control and treat irrigation and stormwater runoff that may contain pesticides and fertilizers.
- The California Regional Water Quality Control Board should be consulted to help define appropriate mitigation measures.
- Access roads, maintenance roads, and invert access roads should be constructed in accordance with accepted design standards, and in consultation with Los Angeles County, to ensure that maintenance activities are not unduly hampered, especially during emergencies and high channel flows.
4.5 Hydrology, Floodplain, and Water Quality

- Incorporate and design stormwater management facilities to reduce or retard the amount of peak runoff and to filter stormwater runoff;
- Include kiosks with environmental education information on the effects and costs of littering;
- Install trash booms and racks to collect trash.
- Establish erosion control plans;
- Revegetate exposed soils as soon as feasible after grading or construction; and
- Incorporate best management practices, such as siltation fences and hay bales, during construction to minimize soil erosion from runoff.

4.5.9 No Project Alternative

Under the No Project Alternative, the particular revitalization objectives of the LARRMP within the 32-mile River Corridor, including the opportunity areas, would not be reached. However, implementation of the County’s LA River Master Plan projects would likely proceed, and may achieve similar objectives. The County of Los Angeles and the Corps are expected to continue maintaining facilities. Other ongoing flood control studies, such as the Integrated Regional Water Management Plan, would also continue.

An estimated 32 percent of the Los Angeles River watershed is estimated to be impervious surface (City of Los Angeles 2005). High amounts of impervious surface area increase runoff volumes, peak discharge rates, and magnitude, frequency, and duration of bankfull flows, creates flashier flows, and diminishes baseflows. Increases in impervious surfaces can also decrease water quality since contaminants make their way to the streams without being naturally filtered by vegetation. Under the No Project Alternative, these conditions would most likely continue.

Most of the tributaries draining into the Los Angeles River, along with the river itself, do not meet state water quality standards and are therefore listed on the Clean Water Act Section 303(d) list of impaired waters. Impairments are due to high coliform bacteria counts, trash, metals, ammonia, nutrients (algae), scum/foam unnatural, odors, and pesticides. Under the No Project Alternative, the poor water quality in the Los Angeles River would most likely continue. The City and County, along with watershed councils, are taking measures to improve water quality. Substantial improvements could be made with large-scale projects, such as the LARRMP.
4.6 MINERAL RESOURCES

4.6.1 Introduction
This section is an evaluation of the potential direct and indirect impacts on sand, gravel, oil, and gas from the revitalization measures and configuration of measures selected for the five opportunity areas. Potential mitigation measures that could be applied to reduce adverse impacts on mineral resources are discussed, along with the No Project Alternative.

4.6.1.1 Regulatory Framework
Certain environmental laws, regulations, and agencies govern the management and monitoring of mineral resources in the study area. An overview of some of the relevant regulations and the responsible agencies is presented below.

State
The California Legislature enacted the Surface Mining and Reclamation Act (SMARA) of 1975 (California Public Resources Code, Division 2, Geology, Mines, and Mining) to address the need for a continuing supply of mineral resources, such as sand and gravel (CDC 2006a). It was also enacted to prevent or minimize the negative impacts of surface mining on public health, property, and the environment. The California Department of Conservation administers the use and protection of mineral resources. The State Mining and Geology Board, the Division of Oil, Gas, and Geothermal Resources, the Office of Mine Reclamation, and the California Geological Survey operate within the Department of Conservation to manage mineral resources and mining.

SMARA requires the State Mining and Geology Board to adopt state policy for the reclamation of mined lands and the conservation of mineral resources (CDC 2006b). These policies are found in California Code of Regulations, Title 14, Division 2, Chapter 8, Subchapter 1. In 1979, the state Board of Mining and Geology adopted guidelines for managing mineral resources and preparing local plans (City of Los Angeles 2001). The guidelines require local general plans to reference the mineral deposits and sites that are identified by the state geologist for conservation or future mineral extraction. Subsequently, the board identified urbanized areas where irreversible land uses precluded mineral extraction. Much of Los Angeles was deemed urbanized and, therefore, exempt from SMARA.

To implement SMARA, the State Geologist developed the Mineral Resource Zone (MRZ) nomenclature and criteria based on the California Mineral Land Classification System (CDC 2006c). The State Geologist uses the MRZ categories in classifying mineral resources of the state’s lands, as follows:

- MRZ-1 lands are of no mineral resource significance;
- MRZ-2 lands are areas of identified mineral resource significance;
- MRZ-3 lands are of undetermined mineral resource significance; and
- MRZ-4 lands are areas of unknown mineral resource significance.

The State Geologist classified MRZ-2 sites within the City of Los Angeles (City of Los Angeles 2001). MRZ-2 sites contain potentially significant sand and gravel deposits, which are to be conserved.
The Division of Oil, Gas, and Geothermal Resources oversees the drilling, operation, maintenance, and plugging and abandonment of oil, natural gas, and geothermal wells (CDC 2006d). Division mandated responsibilities are in Section 3000 et seq. of the Public Resources Code and Title 14, Chapter 4 of the California Code of Regulations.

Also, the California State Lands Commission Mineral Resources Management Division manages the use of energy and mineral resources of oil, gas, geothermal and mineral leases on state-owned lands. Regulations involve California Public Resources Code Chapter 3, Oil and Gas and Mineral Leases.

**Local**

The city implements SMARA requirements primarily through land use controls and permit issuance and monitoring (City of Los Angeles 2001). In 1975, to comply with SMARA, Los Angeles adopted the G Surface Mining supplemental use provisions (LAMC Section 13.03). These provisions are land use not mineral conservation regulations, and they regulate the establishment of sand and gravel districts, extraction operations, mitigation of potential impacts, and post-extraction site restoration. The city may impose other conditions deemed appropriate.

The Conservation Element of the City of Los Angeles General Plan contains objectives, policies, and programs for its resources, which include mineral resources (City of Los Angeles 2001). The plan contains the following mineral resources objective and policies for sand and gravel resources:

- **Objective:** Conserve sand and gravel resources and enable appropriate environmentally sensitive extraction of sand and gravel deposits;
- **Policy 1:** Continue to implement the provisions of the California Surface Mining and Reclamation Act (Public Resources Code Section 2710 et seq.), so as to establish extraction operations at appropriate sites; to minimize operation impacts on adjacent uses, ecologically important areas (e.g., the Tujunga Wash), and groundwater; to protect the public health and safety; and to require appropriate restoration, reclamation and reuse of closed sites; and
- **Policy 2:** Continue to encourage the reuse of sand and gravel products, such as concrete, and of alternative materials use in order to reduce the demand for extraction of natural sand and gravel.

Additional resource management provisions for sand and gravel are found in the Sun Valley and the Sunland-Tujunga-Lake View Terrace-Shadow Hills-East La Tuna Canyon community plans (City of Los Angeles 2001).

The City of Los Angeles has regulatory authority over on-shore land use within its borders (City of Los Angeles 2001). The O Oil Drilling supplemental use district provisions of the Municipal Code (Section 13.01) were enacted in 1953. They delineate the boundaries within which surface operations for drilling, deepening, or operating an oil well or related facilities are permitted, subject to conditions and requirements set forth in the code and by a Department of City Planning zoning administrator, the Fire Department and the City’s petroleum administrator of the Office of Administrative and Research Services. The conditions protect surrounding neighborhoods and the environment from potential impacts. In addition, the Department of Water and Power monitors drilling operations to ensure protection of water wells and aquifers.
The City does not distribute or regulate natural gas, apart from petroleum extraction activities and gas generated at its landfills, sewage treatment plants, and similar facilities (City of Los Angeles 2001). The same regulatory provisions that apply to oil generally apply to gas drilling and extraction, with the City’s authority limited to land use and safety. The City has little regulatory authority over gas production and distribution, except relative to land use and safety issues and gas that is produced at wastewater processing facilities and City landfill sites. Conservation is encouraged by all levels of government. The California Code of Regulations Title 24 requires energy conservation measures in new development projects.

The Conservation Element of the City of Los Angeles General Plan contains objectives, policies, and programs for oil and gas (City of Los Angeles 2001). It contains the following oil and gas resources objectives and policies:

- **Objective:** Conserve petroleum resources and enable appropriate, environmentally sensitive extraction of petroleum deposits within the City’s jurisdiction so as to protect the petroleum resources for future generations and to reduce the City’s dependency on imported petroleum and petroleum products;

- **Policy 1:** Continue to encourage energy conservation and petroleum product reuse; and

- **Policy 3:** Continue to protect neighborhoods from potential accidents and subsidence associated with drilling, extraction, and transport operations, consistent with California Department of Conservation, Division of Oil and Gas requirements.

The County of Los Angeles General Plan addresses mineral resources under various elements, including general goals and policies, land use, and conservation, open space, and recreation (County of Los Angeles 1993). As an example, a Land Use Element policy is to protect known mineral resource reserves (e.g., sand and gravel) from encroachment of incompatible land uses.

### 4.6.1.2 Significance Criteria

Determining the type and level of potential impacts on mineral resources associated with the array of river channel modification and open space development measures in the LARRMP is based mainly on the types and levels of changes to mineral resources that might result. These potential impacts are characterized in this PEIR/PEIS as beneficial or adverse, low, moderate, or high, with the level of significance determined for high impacts. Any of the specific revitalization measures described in Chapter 2 would have a significant adverse impact on mineral resources if it were to result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state; or if it were to result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

### 4.6.2 Potential Impacts Associated with LARRMP River Channel Modification and Open Space Development Measures in the River Corridor

This section presents a discussion of the potential adverse and beneficial impacts on sand, gravel, oil, and gas resources within the River Corridor.
4.6 Mineral Resources

**Sand and Gravel**

Future LARRMP implementation projects must maintain access to mineral deposits for extraction (City of Los Angeles 2001). Much of the MRZ-2 mapped area for sand and gravel in Los Angeles was developed prior to the MRZ-2 classification and mapping, so is unavailable for future extraction. Consequently, the likelihood of future LARRMP projects in the River Corridor resulting in the loss of availability of sand and gravel classified MRZ-2 is minimal, and minimal impacts on sand and gravel resources are expected.

Nevertheless, for future projects in the River Corridor, once site-specific designs are prepared with additional site details, boundaries, and building or structure locations, subsequent environmental reviews should be conducted to further characterize potential impacts on known resources classified as MRZ-2. If subsequent environmental reviews identify potentially significant adverse impacts, mitigation would be required. Examples of mitigation include avoiding the resource altogether, designing the project so that no structures or only nonpermanent structures were over or blocking a resource area, and establishing easements to preserve possible future use of and access to a resource.

**Oil and Gas**

There are oil wells in the River Corridor near Interstate 405 and US 101, with most of the oil fields and oil wells concentrated around the southern end of the River Corridor, south of State Route 110. Because future LARRMP revitalization projects would likely be incompatible with oil and gas extraction, future projects should not be collocated with oil and gas extraction activities. Also, future LARRMP projects should be located and designed so as to not restrict access to oil and gas extraction or create potentially dangerous conditions involving oil and gas. On this basis, negligible adverse impacts on oil and gas resources are expected.

However, as was discussed for sand and gravel resources, once site-specific designs are prepared for future projects in the River Corridor, subsequent environmental reviews should be conducted to further characterize potential impacts on oil and gas resources in the vicinity. If subsequent environmental reviews identify potentially significant adverse impacts, mitigation would be required. Examples of mitigation include avoiding the resource altogether, designing the project so that no structures or only nonpermanent structures were over or blocking a resource area, and establishing easements to preserve possible future use of and access to a resource.

### 4.6.2.1 Potential Impact Levels

In general, there would be minimal or negligible impacts on sand and gravel and underground oil and gas fields. However, subsequent environmental reviews should be conducted at the project level to further characterize potential impacts on mineral resources, once specific designs are prepared with additional site details, boundaries, and building or structure locations.

### 4.6.3 Canoga Park Opportunity Area

This section is a description of the potential impacts on sand, gravel, oil, and gas resources associated with Alternative CP-A and Alternative CP-B for the Canoga Park Opportunity Area. There are no MRZ-2 areas, oil fields, oil wells, gas fields, or wells within the Canoga Park Opportunity Area. Therefore, there would be no impact on the availability of these mineral resources from implementing future LARRMP projects for either alternative.
4.6 Mineral Resources

4.6.4 River Glen Opportunity Area
This section is a description of the potential adverse and beneficial impacts on sand, gravel, oil, and gas resources associated with the two alternative configurations for the River Glen Opportunity Area.

4.6.4.1 Potential Mineral Resources Impacts—Alternatives RG-A and RG-B

Sand and Gravel
There is a mapped MRZ-2 area for sand and gravel within the opportunity area. However, most of the MRZ-2 mapped area sites in Los Angeles were developed prior to the MRZ-2 classification and mapping and therefore are unavailable for future extraction. Consequently, the likelihood is minimal that future projects implementing the configuration of measures that make up Alternative RG-A or Alternative VIG-B would result in the loss of availability of sand and gravel classified MRZ-2. Therefore, minimal impacts on sand and gravel resources are expected with either alternative.

Oil and Gas
There are no oil fields or oil wells in the opportunity area, so there would be no impact with either alternative on the availability of these mineral resources.

4.6.5 Taylor Yard Opportunity Area
This section is a description of the potential adverse and beneficial impacts on sand, gravel, oil, and gas resources associated with the proposed configuration of river channel modification, open space development, and reinvestment measures discussed in the LARRMP for the Taylor Yard Opportunity Area.

4.6.5.1 Potential Mineral Resources Impacts

Sand and Gravel
There is a mapped MRZ-2 area for sand and gravel within the opportunity area. However, most of the MRZ-2 mapped area sites in Los Angeles were developed prior to the MRZ-2 classification and mapping and therefore is unavailable for future extraction. Consequently, the likelihood is minimal that future projects implementing the configuration of measures that make up Alternative VIG-A within this opportunity area would result in the loss of availability of sand and gravel classified MRZ-2. Therefore, minimal impacts on sand and gravel resources are expected with this alternative.

Oil and Gas
There are no oil fields or oil wells in the opportunity area, so there would be no impact on the availability of these types of mineral resources.

4.6.6 Chinatown-Cornfields Opportunity Area
This section is a description of the potential adverse and beneficial impacts on sand, gravel, oil, and gas resources associated with the two alternative configurations of river channel modification, open space development, and reinvestment measures discussed in the LARRMP for the Chinatown-Cornfields Opportunity Area.
4.6.6.1 Potential Mineral Resources Impacts—Alternatives CC-A and CC-B

**Sand and Gravel**
There is a mapped MRZ-2 area for sand and gravel within the opportunity area. However, most of the MRZ-2 mapped area sites in Los Angeles were developed prior to the MRZ-2 classification and mapping and therefore are unavailable for future extraction. Consequently, the likelihood is minimal that future projects implementing the configuration of measures that compose Alternative CC-A or Alternative CC-B within this opportunity area would result in the loss of availability of sand and gravel classified MRZ-2. Therefore, minimal impacts on sand and gravel resources are expected with either alternative.

**Oil and Gas**
There are no oil fields or oil wells in the opportunity area. Therefore, there would be no impact with either alternative on the availability of these types of mineral resources.

4.6.7 Downtown Industrial Opportunity Area
This section describes the potential adverse and beneficial impacts on sand, gravel, oil, and gas resources associated with the two alternative configurations of river channel modification, open space development, and reinvestment measures discussed in the LARRMP for the Downtown Industrial Opportunity Area.

4.6.7.1 Potential Mineral Resources Impacts—Alternatives DI-A and DI-B

**Sand and Gravel**
There is a mapped MRZ-2 area for sand and gravel within the opportunity area. However, most of the MRZ-2 mapped area sites in Los Angeles were developed prior to the MRZ-2 classification and mapping and therefore are unavailable for future extraction. Consequently, the likelihood is minimal that future projects implementing the configuration of measures that make up Alternative CC-A or Alternative CC-B within this opportunity area would result in the loss of availability of sand and gravel classified MRZ-2. Therefore, minimal impacts on sand and gravel resources are expected with either alternative.

**Oil and Gas**
There are no oil fields or oil wells in the opportunity area, so there would be no impact with either alternative on the availability of these types of mineral resources.

4.6.8 Mitigation Actions—Best Management Practices
Implementing the LARRMP river channel modification, open space development, and reinvestment measures would comply with regulations pertaining to mineral resources and would not result in significant (or even any appreciable) adverse impacts on mineral resources. Therefore, no mitigation actions would be required. However, subsequent environmental reviews at the project level should be conducted to further characterize potential impacts on mineral resources, once specific designs are prepared with additional site details and boundaries and building or structure locations have been determined.

4.6.9 No Project Alternative
Under the No Project Alternative, there may be changes to mineral resources resulting from other foreseeable future projects that may be undertaken in the study area by other parties. Those parties would be responsible for determining the potential types of change and levels of impacts associated with specific projects.
4.7 Biological Resources

4.7.1 Introduction
This section is an evaluation at a programmatic level of the potential direct and indirect impacts on biological resources associated with the array of revitalization measures and the particular configuration of measures selected for each of the five opportunity areas described in Chapter 2. Mitigation actions that could be applied in order to reduce potential adverse impacts on biological resources are identified. Potential impacts on biological resources associated with the No Project Alternative are also discussed.

4.7.1.1 Regulatory Framework
An overview of relevant federal, state, and local environmental laws and regulations affecting biological resources in the study area is presented below.

Federal Laws and Regulations
The information given for federal laws and regulations was obtained from the US Army Corps of Engineers Ecosystem Management and Restoration Information System (Corps 2006a).

Clean Water Act
The CWA is the principal law governing pollution control and water quality of the nation’s waterways. The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation’s waters (33 USC 1251). The CWA has been amended numerous times and given a number of titles and codification. It provides standards and enforcement, a number of regulatory programs with permits and licenses, grants and revolving funds, as well as provisions for research and related programs. The CWA is extensive and has numerous implementing regulations and guidance documents. Additional information can be found in Section 4.5.1.1.

Endangered Species Act
The purposes and policies of the ESA are to protect and restore the ecosystems on which endangered species and threatened species depend and to provide a program for conserving them (16 USC 1531, 1536). Section 7 of the ESA (16 USC 1536) states that all federal departments and agencies shall, in consultation with and with the assistance of the Secretary of the Interior/Commerce, ensure that any actions authorized, funded, or carried out by them do not jeopardize the continued existence of any endangered species or threatened species, or result in the destruction or adverse modification of habitat of such species that the Secretary (Interior/Commerce) has determined to be critical, unless an exception has been granted by the Endangered Species Committee (16 USC1536[a][2]).

Section 9 (16 USC 1538) prohibits all persons, including all federal, state, and local governments, from taking listed species of fish and wildlife, except as specified under the provisions for exemptions (16 USC 1539). Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect an endangered or threatened species or to attempt to engage in any such conduct (16 USC 1532[18]). Provisions for civil penalties, criminal violations, enforcement, and citizen suits are found at 16 USC 1540. Additional guidelines for protecting marine mammals are established in the Marine Mammal Protection Act of 1972, as amended. Consultation procedures are administered by the US Fish and Wildlife Service, Department of the Interior, and the National Marine Fisheries Service, Department of Commerce.
With implementation of any of the LARRMP revitalization measures, work would need to be coordinated with the USFWS to ensure compliance with the ESA.

Fish and Wildlife Coordination Act
The purposes of the Coordination Act include recognizing the contribution of wildlife resources to the nation, acknowledging the increasing public interest and awareness of wildlife resources, and ensuring that wildlife conservation receives due consideration in water resources development programs (16 USC 661). The terms wildlife and wildlife resources, as used in this act, “include birds, fishes, mammals and all other classes of wild animals and all types of aquatic and land vegetation upon which wildlife is dependent” (16 USC 666[b]). The Secretary of the Interior, through the USFWS, is authorized to assist and cooperate with federal, state, and public or private agencies and organizations in conserving and rehabilitating wildlife. The National Marine Fisheries Service provides similar assistance and cooperation for wildlife species under the management responsibilities of the Department of Commerce.

All future LARRMP revitalization projects would need to include provisions to conserve wildlife resources to prevent loss of and damages to such resources and to provide for development and improvement in connection with such water resources development. The Corps, as the lead federal agency for this PEIR/PEIS, would be responsible for coordinating with the USFWS, pursuant to the Coordination Act.

Executive Orders
Several EOs relating to biological resources would need to be complied with as future planning and implementation of LARRMP revitalization projects take place. Relevant EOs include the following:

- Invasive Species—EO 13112, issued on February 3, 1999, helps prevent the introduction of invasive species and provides for their control and minimizes the economic, ecological, and human health impacts that invasive species cause.
- Protection of Wetlands—EO 11990, issued on May 24, 1977, helps avoid the long-term and short-term adverse impacts associated with destroying or modifying wetlands and avoiding direct or indirect support of new construction in wetlands when there is a practicable alternative.
- Migratory Bird—EO 13186, issued on January 10, 2001, promotes the conservation of migratory birds and their habitats and directs federal agencies to implement the Migratory Bird Treaty Act.
- Protection and Enhancement of Environmental Quality—EO 11514, issued on March 5, 1970, supports the purpose and policies of NEPA and directs federal agencies to take measures to meet national environmental goals.

State Laws and Regulations
California Endangered Species Act
The CESA focuses on protecting all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation. The California Department of Fish and Game (CDFG) would work with all interested persons, agencies, and organizations to protect and preserve such sensitive resources and their habitats.
CESA also can allow for take of threatened species that is incidental to otherwise lawful development projects. CESA emphasizes early consultation during project planning and implementation to avoid potential impacts on rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project-caused losses of listed species and their essential habitats (CDFG 2006c).

Any of the revitalization measures selected for future projects would need to be coordinated with the CDFG to ensure compliance under the CESA. Ground surveys for the presence of threatened or endangered species may be necessary. Project features could be included to enhance and promote the sustainability of threatened and endangered species.

**Streambed Alteration Agreement**

The CDFG has jurisdictional authority over wetland resources associated with rivers, streams, and lakes under California Fish and Game Code Sections 1600 through 1607. Activities of state and local agencies and public utilities that are project proponents are regulated by the CDFG under Section 1601 of the code, which regulates work that will substantially divert, obstruct, or change the natural flow of a river, stream, or lake; that would substantially change the bed, channel, or bank of a river, stream, or lake; or that would use material from a streambed. The CDFG enters into a Streambed Alteration Agreement with a project proponent and can impose conditions on the agreement to ensure impacts on fish and wildlife or habitat are avoided, minimized, or mitigated. Any work on future LARRMP revitalization projects taking place within the Los Angeles River channel would need to be coordinated with the CDFG.

**Local and Regional Laws and Regulations**

**Significant Ecological Areas**

Los Angeles County established SEAs in 1976 to designate areas with sensitive environmental conditions or resources to preserve biological diversity. Los Angeles County defines a SEA as “ecologically important or fragile land and water areas, valuable as plant and animal communities.” These areas are classified as such based on the presence of one or more of the following:

- Habitats for rare and endangered species of plants and animals;
- Restricted natural communities—ecological areas that are scarce on a regional basis;
- Habitats restricted in distribution in the county;
- Breeding or nesting grounds;
- Unusual biotic communities;
- Sites with critical wildlife and fish value; and
- Relatively undisturbed habitats.

SEA boundaries are general in nature and broadly outline the biological resources of concern. The Los Angeles County General Plan allows development in SEAs as long as development is “highly compatible” with the identified resources. A conditional use permit is required for development in SEAs in order to protect resources contained in the SEAs from incompatible development. Any work near the Griffith Park SEA would need to be coordinated with the County of Los Angeles to ensure that work enhances biological resources of the area, as opposed to it being detrimental.
**Tree Ordinance**
The Los Angeles County Oak Tree Ordinance was established to recognize oak trees for their historical, ecological, and aesthetic value. Oak tree permits are required to remove or prune oak trees or to develop within five feet of the dripline of oak trees in unincorporated areas of the county. The objective of the permit is to preserve and enhance as many healthy oak trees in the development process and to create favorable conditions for the presentation and propagation of this unique, threatened plant heritage.

The City of Los Angeles, Municipal Code 46.00, establishes protected tree regulations. A permit is required from the Board of Public Works to remove or relocate oak, southern California black walnut, western sycamore, or California bay trees. Removal includes activities that may cause a tree to die. The City of Los Angeles also regulates the trimming and removal of other species of trees. Clearing vegetation, including trees, would need to be coordinated with both the City and County of Los Angeles to ensure compliance with the various tree ordinances.

**NCCP**
It is worth mentioning that the Natural Community Conservation Planning (NCCP) program of the Department of Fish and Game, though not a local law or regulation, is a collaborative multidisciplinary effort by the State of California and numerous private and public partners. The primary objective of the NCCP program, which takes a broad-based ecosystem approach to planning for the protection and perpetuation of biological diversity, is to conserve natural communities at the ecosystem scale while accommodating compatible land use. Many California communities, including San Diego, have used this program to facilitate species reintroduction. (California Department of Fish and Game 2007).

**4.7.1.2 Significance Criteria**
Criteria to help determine the level and significance of impacts on biological resources associated with implementing the LARRMP are based on federal, state, and local standards and regulations. These criteria would become applicable if and when future implementation projects were identified in the River Corridor.

In accordance with Appendix G of the CEQA Guidelines, a future project could have a potentially significant impact on biological resources if it were to do the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by the CDFG or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS;
- Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the CWA (including marshes, vernal pools, and coastal wetlands) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
• Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
• Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

4.7.2 Potential Impacts Associated with River Channel Modification and Open Space Development Measures in the River Corridor

This section is a discussion of the potential impacts on biological resources related to future implementation of the LARRMP river channel modifications and open space development measures (described in Sections 2.2 and 2.3 of this PEIR/PEIS).

4.7.2.1 River Channel Modification Measures

There are two types of LARRMP River Channel Modification Measures: those without reduction in river flow velocity and those with reduction in river flow velocity. For the without-flow-reduction type of channel modification (see Section 2.2.2), vegetative cover would be increased up to 30 percent within the channel ROW, and intermittent habitat would be developed along the river bottom. This type of modification would help connect fragmented habitats and provide increased habitat for wildlife, such as migratory birds, and for keystone species, such as coyotes, shrikes, quail, acorn woodpeckers, and Lorquin’s admiral butterfly. Temperatures in the area might also decrease due to shading by trees and the reduction in the amount of concrete. Water quality might also be expected to improve from vegetative bio-swales and bio-filtration areas filtering stormwater runoff. Improvements in water quality would help enhance conditions for fish and aquatic wildlife.

Some of the highest value habitats in the River Corridor are the riparian vegetation growing in the river channel in the Sepulveda Basin and through the Glendale Narrows. Providing more of this type of habitat would greatly enhance the fish and wildlife resources of the area, especially native species. It would provide nesting, feeding, and migration areas for birds and mammals. Fish populations would also increase as the amount of riparian/streamside vegetation increases.

For the with-flow-reduction type of channel modification (described in Section 2.2.3), vegetative cover would be increased by up to 50 percent within the channel ROW, and more continuous habitat would be developed along the river bottom. This type of modification would provide greater benefits to biological resources than the without-flow-reduction type of modification. The potential for developing sustainable fish and wildlife populations in the River Corridor would be enhanced. Populations of migratory birds and small mammals would be expected to increase appreciably. Species density and richness would also be expected to increase. Keystone species, such as coyotes, shrikes, quail, acorn woodpeckers, and Lorquin’s admiral butterfly, would be expected to be able to migrate within the corridor and to have improved access to the Griffith Park SEA.

Reducing peak flow rates also benefits fish and wildlife. During floods, habitats are destroyed and washed downstream, along with fish and wildlife not able to move out of the river channel in a timely manner. Reducing flow rates reduces the amount of impact high flows inflict on biological resources. It also allows for in-stream habitats and riparian gravel/sediment bars to more fully develop, thus allowing for greater species diversity and sustainability.
With either type of channel modification, impacts on biological resources are expected to be mostly beneficial, providing more and improved fish and wildlife habitat. The less concrete and the more vegetation, velocity reduction measures, and bio-swales/filtration areas, the better it is for biological resources. However, construction work, especially for the with-flow reduction measures, would require large amounts of excavation and the subsequent disposal of the materials. Adverse impacts on biological resources during construction would be temporary and low since most of the corridor is of extremely poor habitat quality, except for Sepulveda Basin and Griffith Park/Glendale Narrows. In these areas, impacts to existing biological resources could be high and potentially significant. Work would need to be coordinated with land managers and resource agencies to ensure that adverse impacts were reduced to less than significant levels.

In the Sepulveda Basin and through the Glendale Narrows, wetlands are expected to be encountered within the river channel. The wetland habitats are associated with vegetation growing along the edges of the wetted channel and on in-channel gravel/sediment bars. As individual revitalization projects become identified for implementation, ground surveys to assess the location of wetlands and to help develop measures to enhance and incorporate existing habitat into the project designs to the extent practicable. The functions and the values of the habitats would also be assessed. In spite of potential adverse impacts on the riparian habitat and wetlands during construction of individual projects, it can be expected that there would be overall net beneficial impacts on biological resources. The acreage of wetlands and higher value habitats is expected to increase, in addition to improved function and values of the habitat.

The greatest potential for long-term adverse impacts on biological resources would be human interactions with wildlife, such as skunks, raccoons, coyotes, and snakes. Coyotes and raccoons can get into trash, and coyotes can prey on domestic dogs and cats. These types of adverse interactions are inevitable if the habitat in the River Corridor improves and greater numbers of these types of species inhabit the area.

There are potential impacts on ecosystems from ponded water that may develop upstream, downstream, and within ponded areas, especially when the water held in these dams is released. These potential impacts will need to be identified and evaluated when such projects are identified along the River Corridor.

4.7.2.2 Open Space Development Measures
As discussed in Section 2.3, open space development measures include greenway connections, greenway expansions, and greenway extensions. They also include the development of parks, green streets, paseos and promenades, trails and bikeways, pedestrian river crossings, river loops, gateways, and water quality and habitat improvements.

Features such as play grounds, ball fields, paseos and promenades, bike trails, pedestrian crossings and gateways would provide minimal wildlife habitat benefits. They are designed for human use, and as such they do not typically provide suitable habitat for wildlife. The landscaping associated with these features, along with the greening of the streets, can provide some benefit to passerine (perching) birds, such as sparrows and small mammals. The greatest benefit is the establishment of vegetation and the reduction in the amount of impermeable surface area. Vegetation also helps cool air temperatures and absorbs surface water when it rains.

Habitat enhancing measures like establishing riparian zones around ponds and creeks and establishing thickets of vegetation would help increase the diversity of species in the River Corridor. These types of
measures would also aid in establishing linkages between disconnected habitats. Measures would need to be taken to control nonnative species, to help ensure the productivity of the sites. In addition to providing water quality benefits, features such as vegetated bio-swales, infiltration areas, and retention ponds can also provide habitat benefits if designed properly.

Potential adverse impacts on biological resources from these features are similar to those for the river channel modification measures described above. These include impacts from construction and human and wildlife interactions. Another potential adverse effect is that isolated wooded areas near city centers tend to attract vagrants. Security patrols would likely be needed to deter them from establishing homeless camps and to ensure public safety.

**4.7.2.3 Potential Impact Levels**

Overall, the levels of adverse impacts on biological resources from implementing the LARRMP river channel modification measures and the open space development measures are expected to be low to moderate. Most of the river channel has minimal habitat values, except for Sepulveda Basin and through the Glendale Narrows. Higher value habitats should be avoided to the extent possible and/or should be incorporated into project designs. Channel modifications in the Sepulveda Basin and the Glendale Narrows areas would potentially have short-term high and significant adverse impacts.

Adverse impacts on wetlands and higher value habitat in the stream channel would be offset by creating and enhancing these habitats. Construction-related impacts would be temporary and minor. No threatened or endangered species are known or expected to inhabit the corridor.

On this basis, therefore, a net gain of ecological benefits is expected by implementing the LARRMP measures. Beneficial impacts on biological resources have the potential of being major to significant, depending on the amount and type of habitat constructed. Implementing these measures, especially the river channel modifications, would contribute to the cumulative amount of fish and wildlife habitat in the River Corridor, along with contributing to the amount of open space in the Los Angeles basin. A discussion of potential mitigation actions and best management practices can be found in Section 4.7.8.

**4.7.3 Canoga Park Opportunity Area**

The Canoga Park Opportunity Area is where Bell Creek and Arroyo Calabasas converge to form the Los Angeles River. (A description of the alternatives for this opportunity area can be found in Sections 2.4.1 and 2.4.2 of this PEIR/PEIS.) A discussion of the anticipated environmental impacts on biological resources for the two alternatives discussed for this Opportunity Area in the LARRMP is presented below.

**4.7.3.1 Potential Impacts on Biological Resources—Alternative CP-A**

Proposed river channel modification and open space development measures discussed in the LARRMP for this alternative include terracing the river channel, developing parks, green streets, paseos and promenades, trails, and pedestrian bridges and water quality enhancement measures. Most of the impacts on biological resources associated with this alternative would be beneficial. The greater the amount of open-space and vegetation (that is, no pavement or structures), the better it is for biological resources. Natural vegetation provides the habitat needed by fish and wildlife. Terracing the river would help open up the channel and would reduce water velocities during high water events. The river channel would also be modified to provide intermittent habitat areas. Migratory birds and small mammals are expected to use the area. Water quality is
expected to improve, thus improving the diversity and health of aquatic organisms living in the river. These types of features would also help link habitats in the River Corridor.

Features such as playgrounds, ball fields, paseos and promenades, bike trails, pedestrian crossings, and gateways are designed for human use and do not typically provide suitable habitat for fish and wildlife. The landscaping associated with these features, along with the greening of the streets, can provide some benefit to passerine birds, such as sparrows and small mammals. The greatest benefit is the establishment of vegetation and the reduction in the amount of impermeable surface area. Vegetation also helps cool air temperatures and absorbs surface water when it rains.

Potential adverse impacts on biological resources consist of those from construction and human-wildlife interactions. Construction impacts are related to removing concrete, tearing down buildings, clearing landscaping in areas where it could not be avoided, and stormwater runoff generating sedimentation. As wildlife begins to inhabit the area after construction, conflicts with wildlife such as skunks, coyotes, and snakes are expected to increase. There is also the potential for increased use of wooded areas by vagrants. Increased security patrols would likely be needed to deter them from establishing homeless camps and to ensure public safety.

4.7.3.2 Potential Impacts on Biological Resources—Alternative CP-B
Impacts with Alternative CP-B, both adverse and beneficial, are similar to Alternative CP-A, except they would be to a slightly greater degree due to the increased width of the terracing, expansion of the riverfront park, and the daylighting of the underground portion of Arroyo Calabasas in the Westfield Shopping Center parking lot. Daylighting of the stream would enable it to begin supporting fish and wildlife resources.

4.7.3.3 Conclusion as to Potential Impact Levels—Alternatives CP-A and CP-B
Overall, the degree of adverse impacts on biological resources is expected to be low. Construction impacts would be temporary. The area currently has minimal habitat value. No significant adverse impacts are expected from implementing the proposed configuration of measures in either alternative. None of the significant thresholds discussed above would be met. No rare, threatened, or endangered species are known or expected to inhabit the Opportunity Area. Wetlands are not mapped nor are they expected to be found within the opportunity area. Beneficial impacts on biological resources have the potential of being significant, depending on the amount and type of habitat constructed.

4.7.4 River Glen Opportunity Area
The River Glen Opportunity Area is at the bend where the Los Angeles River heads south at Griffith Park. A description of the alternatives for this opportunity area can be found in Sections 2.4.1 and 2.4.3. A discussion of the anticipated environmental impacts on biological resources for each of the alternatives is presented below.

4.7.4.1 Potential Impacts on Biological Resources—Alternative RG-A
Potential river channel modifications and open space development measures proposed in the LARRMP for this alternative include expanding the wetland area at Verdugo Wash, terracing the river, and developing green streets, promenades, trails, and parks. Most of the impacts on biological resources associated with this alternative would be beneficial. Enhancing and adding additional wetlands at Verdugo Wash would provide substantial ecological benefits, especially with improved habitat and water quality. The greater the amount of
open space and natural vegetation (that is, no pavement or structures), the better it is for biological resources. Vegetation, especially native species, provides the needed habitat for fish and wildlife to include migratory birds and keystone species. Terracing the river would help open up the channel and reduce water velocities during high water events. It would also help connect in-channel habitats with those adjacent to the channel. Water quality is expected to improve, thus improving the diversity and health of aquatic organisms living in the river. These types of features would also help link habitats in the River Corridor and connect them to Griffith Park.

There are wetlands at the confluence of Verdugo Wash and the Los Angeles River. Additional wetlands are expected to be encountered on the gravel/sediment bars in the river channel. As individual implementation projects are identified, ground surveys should be conducted to assess the location of wetlands and to help develop measures to enhance and incorporate habitat into the project designs to the extent practicable. The functions and the values of the habitats would also be assessed. In spite of temporary and minor adverse impacts on the riparian habitat and wetlands during construction, work would have an overall beneficial impact on biological resources. The acreage of wetlands and higher value habitats is expected to increase, in addition to providing improved function and value.

Since the site is just across the river from Griffith Park, it is a prime location to provide habitat linkages. To ensure that this occurs, future projects should be coordinated closely with park managers and resource agencies.

Features such as playgrounds, ball fields, paseos and promenades, bike trails, pedestrian crossings, and gateways are designed for human use, and as such they do not typically provide suitable habitat for fish and wildlife. The landscaping associated with these features, along with the greening of the streets, can provide some benefit to migratory birds and small mammals. The greatest benefit is the establishment of vegetation and the reduction in the amount of impermeable surface area. Vegetation also helps cool air temperatures and absorbs surface water when it rains.

Potential adverse impacts consist of those from construction, particularly in-channel work, and human-wildlife interactions. Construction impacts are related to removing concrete, tearing down buildings, clearing landscaping in areas where it could not be avoided, and increasing sedimentation due to stormwater runoff. Surveys to identify and assess wetlands and higher value habitat should be performed as necessary in order to avoid adverse impacts on these and be incorporated into project designs to the extent possible. Additional coordination with resource agencies would be necessary to ensure that adverse impacts be minimized and that project features be compatible with existing land use plans. As wildlife begins to inhabit the area, especially on the east side of the river, interactions with wildlife such as skunks, coyotes, and snakes are expected to increase. There is also the potential for increased use of wooded areas by vagrants. Increased security patrols would likely be needed to deter them from establishing homeless camps and to ensure public safety. No rare, threatened, or endangered species are known or are expected to inhabit the site.

4.7.4.2 Potential Impacts on Biological Resources—Alternative RG-B

Alternative RG-B is similar to Alternative RG-A, except for the following:

- Verdugo Wash would be realigned to enter the Los Angeles River farther downstream, creating a small island of habitat;
• The east bank of the river would be terraced to provide a series of street end parks and water quality treatment terraces;
• A water quality riverine habitat area would be developed to the east of I-5 (Golden State Freeway) to bring the river more into Griffith Park; and
• There would be a greater emphasis on water quality enhancement measures.

These additional features would provide increased ecological/biological benefits. They would provide more habitat for fish and wildlife, along with improved water quality.

4.7.4.3 Conclusion as to Potential Impact Levels—Alternatives RG-A and RG-B
Work involved in implementing either alternative would require large amounts of excavation and subsequent disposal of the materials. Short term impacts to existing biological resources could be high to significant. However, with proper planning and coordination with resource agencies and land managers, impacts could be reduced to less than significant levels. Adverse impacts on wetlands and higher value habitat in the stream channel would be offset by creating and enhancing these habitats in implementing either alternative. Overall, there would be a net gain of ecological benefits from either of the two alternatives.

4.7.5 Taylor Yard Opportunity Area
The Taylor Yard Opportunity Area is south of the River Glen Opportunity Area at the Glendale Freeway (SR-2). (A description of the configuration of measures for this opportunity area can be found in Sections 2.4.1 and 2.4.4.) Below is a discussion of the anticipated environmental impacts on biological resources.

4.7.5.1 Potential Impacts on Biological Resources
The configuration of river channel modification and open space development measures proposed in the LARRMP for this opportunity area includes terracing the river channel and developing parks, green streets, trails, and promenades. Most of the impacts associated with this alternative would be beneficial. The greater the amount of open space and vegetation (that is, no pavement or structures), the better it is for biological resources. Vegetation, especially native species, provides the needed habitat for fish and wildlife. Terracing the river would help open up the channel and would reduce water velocities during high water events. Terracing the river would also help connect in-river habitat to habitats adjacent to the channel. Water quality is expected to improve, thus improving the diversity and health of aquatic organisms living in the river.

Most of the river channel in this area has riparian vegetation on the shorelines of the wetted channel. Wetlands are expected to be encountered in the channel. As individual implementation projects are proposed, ground surveys should be conducted as necessary to assess the location of wetlands and to help develop measures to enhance and incorporate existing habitat into the project designs to the extent practicable. In spite of minor and temporary adverse impacts on the riparian habitat and wetlands during construction, revitalization measures are expected to have an overall benefit. The acreage of wetlands and higher value habitats would increase, and function and values of the habitat would improve.

Features such as playgrounds, ball fields, paseos and promenades, bike trails, pedestrian crossings, and gateways are designed for human use and do not typically provide suitable habitat for fish and wildlife. The landscaping associated with these features, along with the greening of the streets, could provide some benefit to migratory birds and small mammals. The greatest ecological/biological benefit would be from the
establishment of vegetation and the reduction in the amount of impermeable surface area. Vegetation also helps cool air temperatures and absorbs surface water when it rains.

Potential adverse impacts are associated with construction, particularly in-channel work, and human-wildlife interactions. Construction impacts are related to such things as removing concrete, tearing down buildings, clearing landscaping in areas where it could not be avoided, and increasing sedimentation from stormwater runoff. Surveys to identify and assess wetlands and higher value habitat should be performed as necessary for each implementation project. As wildlife begins to inhabit the area after construction, interactions with wildlife, such as skunks, coyotes, and snakes, is expected to increase. There is also the potential for increased use of wooded areas by vagrants. Increased security patrols would likely be needed to deter them from establishing homeless camps and to ensure public safety. No rare, threatened, or endangered species are known or are expected to inhabit the opportunity area.

4.7.5.2 Conclusion as to Potential Impact Levels
Construction would require large amounts of excavation and subsequent disposal of the materials. Impacts to existing biological resources could be high and potentially significant. Adverse impacts on wetlands and higher value habitat in the river channel would be offset by creating and enhancing these habitats. Coordination with resource agencies would be necessary to ensure that adverse impacts are reduced to less than significant levels, and that project features are compatible with existing land use plans. Temporary adverse impacts on wetlands and higher value habitat in the river channel would be offset by creating and enhancing such habitats at the site. Overall, there would be a net gain of ecological benefits from implementing the proposed measures.

4.7.6 Chinatown-Cornfields Opportunity Area
The Chinatown-Cornfields Opportunity Area is just south of Dodger Stadium and includes the recently opened Los Angeles State Historic Park. (A description of the two alternatives for this opportunity area discussed in the LARRMP can be found in Sections 2.4.1 and 2.4.5.) Below is a discussion of the anticipated environmental impacts on biological resources for each of these alternatives.

4.7.6.1 Potential Impacts on Biological Resources—Alternative CC-A
Alternative CC-A includes terracing the river channel and developing parks, green streets, paseos and promenades, trails, pedestrian bridges, and water quality enhancement measures. Most of the potential impacts on biological resources associated with this alternative would be beneficial. The greater the amount of open-space and vegetation (that is, no pavement or structures), the better it is for biological resources. Natural vegetation, especially native species, provides habitat needed for fish and wildlife. Terracing the river would help open up the channel and reduce water velocities during high water events.

Features such as playgrounds, ball fields, paseos and promenades, bike trails, pedestrian crossings and gateways are designed for human use, and as such they do not typically provide suitable habitat for fish and wildlife. The landscaping associated with these features, along with the greening of the streets, could offer some benefit to migratory birds and small mammals. The greatest benefit is the establishment of vegetation and the reduction in the amount of impermeable surface area. Vegetation also helps cool air temperatures and absorbs surface water when it rains.
Potential adverse impacts on biological resources would consist of those from construction and human-wildlife interactions. Construction impacts would be related to such things as removing concrete, tearing down buildings, clearing landscaping in areas where it could not be avoided, and increasing sedimentation from stormwater runoff. As wildlife begins to inhabit the area after construction is completed, interactions with wildlife, such as skunks, coyotes, and snakes, is expected to increase. There is also the potential for increased use of wooded areas by vagrants. Increased security patrols would likely be needed to deter them from establishing homeless camps and to ensure public safety. No rare, threatened, or endangered species are known or are expected to inhabit the opportunity area. Wetlands are not mapped and are not expected to be found within the opportunity area.

4.7.6.2 Potential Impacts on Biological Resources—Alternative CC-B
Alternative CC-B is similar to Alternative CC-A, except an island would be created in the river. The island would provide ecological benefits along with recreational opportunities, such as hiking and bird watching. Riparian habitat would be created on the island. Potential impacts on biological resources with Alternative CC-B, both adverse and beneficial, are similar to those of Alternative CC-A, except for the additional work necessary to construct the island, which would include a substantial amount of excavation.

4.7.6.3 Conclusion as to Potential Impact Levels—Alternatives CC-A and CC-B
Overall, the level of potential adverse impacts on biological resources from either alternative is expected to be low to moderate. The area currently has minimal habitat value, and most of it is highly urbanized/developed and there is minimal to no habitat in the river channel, except for algae growing in the wetted portions. Potential construction impacts are short term. Alternative CC-B would involve considerably more work in constructing the island, but no significant adverse impacts are expected from the additional work. None of the significant thresholds discussed previously would be exceeded.

4.7.7 Downtown Industrial Opportunity Area
The Downtown Industrial Opportunity Area is in a highly urbanized/developed area. The two alternatives for this opportunity area are discussed in Sections 2.4.1 and 2.4.6 of this PEIR/PEIS. An evaluation of the anticipated environmental impacts on biological resources for each of the alternatives is presented below.

4.7.7.1 Potential Impacts on Biological Resources—Alternative DI-A
Alternative DI-A includes terracing the river channel, developing parks, green streets, paseos and promenades, trails, and pedestrian underpasses. Most of the potential impacts on biological resources associated with this alternative would be beneficial. The greater the amount of open space and vegetation (that is, no pavement or structures), the better it is for biological resources. Terracing the river would help open up the channel and reduce water velocities during high water events.

Features such as playgrounds, ball fields, paseos and promenades, bike trails, pedestrian crossings, and gateways are designed for human use, and as such they do not typically provide suitable habitat for fish and wildlife. The landscaping associated with these features, along with the greening of the streets, could provide some benefit to migratory birds and small mammals. The greatest benefits would come from establishing vegetation and reducing the amount of impermeable surface area. Vegetation also helps cool air temperatures and absorbs surface water when it rains.
Potential adverse impacts on biological resources would be associated with construction primarily. Construction impacts are related to removing concrete, tearing down buildings, clearing landscaping in areas where it could not be avoided, and increasing sedimentation stormwater runoff. Potential adverse human/wildlife interactions from animals, such as skunks, coyotes, and snakes, are expected to be negligible. However, there is the potential for increased use of wooded areas by vagrants. Increased security patrols would likely be needed to deter them from establishing homeless camps and to ensure public safety. No rare, threatened, or endangered species are known or are expected to inhabit the site. Wetlands are not mapped, and are not expected to be encountered.

4.7.7.2 Potential Impacts on Biological Resources—Alternative DI-B
Alternative DI-B is similar to Alternative DI-A, except for increased parkland and terracing of the river channel and consolidation of railroad tracks. Potential impacts on biological resources associated with Alternative DI-B, both adverse and beneficial, are similar to Alternative DI-A, except for a slight increase in temporary and minor adverse impacts, in accordance with the increase in construction work to be performed.

4.7.7.3 Conclusion as to Potential Impact Levels—Alternatives DI-A and DI-B
Overall, the level of adverse impact is expected to be low to moderate. The area has minimal habitat value. It is highly urbanized/developed, and there is minimal to no habitat in the river channel, except for algae growing in the wetted portions. Construction impacts would be short term. None of the significant thresholds discussed previously would be exceeded.

4.7.8 Potential Mitigation Actions and Best Management Practices
As specific LARRMP implementation projects are identified and undertaken in the future, site-specific biological surveys would likely need to be conducted to better define biological resources, such as the presence of and potential impacts on wetlands and higher value habitats. Future project plans and designs would need to be coordinated with appropriate resource agencies and land managers to ensure to the greatest extent possible that high value habitats could be accounted for and their functions and values enhanced.

Potential mitigation measures and best management practices for future projects to reduce levels of potential adverse impacts on biological resources include the following:

- Incorporating existing native vegetation into the design, where practicable, so as to avoid removing vegetation;
- Using stormwater best management practices, such as silt fences and hay bails, to help minimize siltation and erosion during storms;
- Using native vegetation in revegetation plans, along with developing invasive species control plans;
- Adhering to the county’s Los Angeles River Master Plan Landscaping Guidelines and Plant Palettes (January 2004), which requires the use of native drought-tolerant plants that provide habitat for indigenous wildlife and avifauna;
- Incorporating pockets of thicker vegetation into the designs to provide areas with higher habitat value;
- Conducting surveys of Sepulveda Basin and the Glendale Narrows to identify wetlands or other high value habitats and, where wetlands exist, incorporating them into project designs and including features to enhance their function and values;
- Including kiosks with environmental education information on how to minimize adverse human/wildlife interaction;
- Providing increased security patrols and lighting to improve public safety;
- Identifying and evaluating potential impacts on associated ecosystems from the development of ponded areas and especially from the periodic release of ponded water; and
- Identifying seasonal restrictions to construction based on bird migration and breeding patterns and other wildlife issues.

4.7.8.1 No Project Alternative
Under the No Project Alternative, LARRMP revitalization measures within the 32-mile River Corridor and the five opportunity areas would not occur. Potential benefits from the LARRMP would not be realized.

Minimal habitat values exist in the study area, except for Sepulveda Basin and the Glendale Narrows. From the Canoga Park Opportunity Area downstream to Sepulveda Basin, the river channel is lined with concrete, with some algae growing in the wetted portions. The area is highly developed, with single and multifamily housing interspersed with commercial development. The greatest habitat value is associated with landscaping and tree-lined streets. Pockets of trees help to provide habitat for passerine birds and small mammals.

Habitat values in the Sepulveda Basin increase due to the amount of open space, parkland, and in-channel habitat. The in-channel habitat deteriorates again after the Sepulveda Basin dam and is pretty much void of in-channel vegetation (except algae) until the northern crossing of I-5 (Golden State Freeway). At the River Glen Opportunity Area, the in-channel habitat is some of the most productive of the five opportunity areas even though there is a preponderance of invasive/nonnative vegetation. This is due primarily to in-channel gravel/sediment bars, vegetation growing along the shoreline, and the site’s proximity to Griffith Park. The in-channel habitat supports waterfowl, such as mallard ducks and the occasional heron. The west bank of the river includes I-5, the Autry National Center Museum of the American West, and a golf course. The east bank of the river is densely developed as industrial, with railroad tracks and warehouses.

In-channel habitat continues down through the Taylor Yard Opportunity Area and is fairly productive and comparable to the River Glen site to include a preponderance of nonnative invasive vegetation. The sites’ productivity is due to in-channel gravel/sediment bars and vegetation growing along the shoreline. The area includes a wide mixture of land uses, including commercial, industrial, parkland, and residential. A park with recreational fields is under construction.

Downstream of the Taylor Yard Opportunity Area, habitat values decline again due to the lack of in-channel vegetation (except algae) and the density of urban development. At the Chinatown-Cornfields and the Downtown Industrial Opportunity Areas, fish and wildlife habitat values are minimal. Conditions are improving at the Chinatown-Cornfields site due to the Los Angeles State Historic Park.
Under the No Project Alternative, some changes to the Los Angeles River are expected. The city, county, local watershed and nongovernmental organizations are working toward improving the habitat and water conditions along the Los Angeles River. For example, a Corps watershed feasibility study is ongoing for the Arroyo Seco. Goals for this project include improving fish and wildlife habitat and water quality conditions. Other programs that would benefit biological resources include stormwater management initiatives, TMDL development, and the University of Southern California’s Green Vision planning efforts.
4.8 **LAND USE**

4.8.1 **Introduction**

This section is an evaluation at a programmatic level of the potential direct and indirect land use impacts from the array of revitalization measures and the particular configuration of measures for the five opportunity areas. Mitigation measures that could be applied to reduce adverse land use impacts are discussed, along with the No Project Alternative.

4.8.1.1 **Regulatory Framework**

Regulatory requirements for land use decisions in the River Corridor are addressed at the federal, regional, and local levels. Regulation of land use in the Los Angeles River ROW involves the Corps and the Los Angeles County Flood Control District. Regional land use regulation is provided by the Southern California Association of Government’s (SCAG) *Regional Comprehensive Plan and Guide*. Local regulation is found in various land use plans and policy documents such as the General Plans of the Cities of Los Angeles, Glendale, and Burbank and the associated Community Plans and Specific Plans for those communities that fall within the River Corridor. These guidelines and regulations are discussed below.

**Federal**

*Federal Lands (the Corps, Sepulveda Basin)*

Land use within the Sepulveda Basin is regulated by the managing federal agency, the Corps. The Corps has prepared the Sepulveda Basin Master Plan to guide land use and development within the boundaries of the Sepulveda Basin project. The Corps is planning to revise the Sepulveda Basin Master Plan, which was prepared in 1981.

*Los Angeles River Channel (Corps and Los Angeles County)*

The Corps and Los Angeles County have jurisdiction over the Los Angeles River ROW for flood control conveyance. These agencies maintain service roads along the tops of channels for project inspection and project area maintenance.

*US Fish and Wildlife Service Habitat Conservation Plans*

Private landowners, corporations, state or local governments, or other nonfederal landowners who wish to conduct activities on their land that might incidentally harm (or “take”) wildlife that is listed as endangered or threatened must first obtain an incidental take permit from the US Fish and Wildlife Service (USFWS). To obtain a permit, the applicant must develop a Habitat Conservation Plan (HCP), designed to offset any harmful effects the proposed activity might have on the species. Future revitalization measures may have to be implemented to develop HCPs in applicable situations, and compatibility of proposed measures with any existing HCPs in the project area should be considered (USFWS 2006e).

**State/Regional**

*California State Parks*

Two state parks are under development within the River Corridor. These parks are the Rio De Los Angeles State Park in the Taylor Yard Opportunity Area and the Los Angeles State Historic Park in the Chinatown-
Cornfields Opportunity Area. General Plans are in development for these two parks that will provide guidelines for land use within the park boundaries.

**Southern California Association of Governments**

CEQA requires that regional agencies review projects and plans throughout their jurisdiction, which in SCAG’s case includes the project area. SCAG’s Intergovernmental Review Section is responsible for performing consistency review of regionally significant local plans, projects, and programs with SCAG’s adopted regional plans. SCAG’s criteria for determining regional significance includes any proposed local general plan, element, or amendment thereof for which an EIR was prepared.

**Local**

**City of Los Angeles General Plan**

Prepared and maintained by the Department of City Planning, this is a comprehensive, long range declaration of purposes, policies, and programs for developing the City of Los Angeles. It is approved by the City Planning Commission and the Mayor and adopted by the City Council. The General Plan includes the Land Use Element or plan for each of the City’s 35 Community Planning Areas. Table 4.8-1 identifies the community planning areas in the River Corridor and vicinity.

<table>
<thead>
<tr>
<th>Community Planning Area</th>
<th>Opportunity Area(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canoga Park/Winnetka/Woodland Hills/West Hills</td>
<td>Canoga Park</td>
</tr>
<tr>
<td>Reseda/West Van Nuys</td>
<td>River Corridor only</td>
</tr>
<tr>
<td>Encino/Tarzana</td>
<td>River Corridor only</td>
</tr>
<tr>
<td>Van Nuys/North Sherman Oaks</td>
<td>River Corridor only</td>
</tr>
<tr>
<td>Sherman Oaks/Studio City/Toluca Lake/Cahuenga Pass</td>
<td>River Corridor only</td>
</tr>
<tr>
<td>North Hollywood/Valley Village</td>
<td>River Corridor only</td>
</tr>
<tr>
<td>Hollywood</td>
<td>River Glen</td>
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<tr>
<td>Northeast Los Angeles</td>
<td>River Glen, Taylor Yard</td>
</tr>
<tr>
<td>Silver Lake/Echo Park/Elysian Valley</td>
<td>Taylor Yard, Chinatown-Cornfields</td>
</tr>
<tr>
<td>Central City North</td>
<td>Chinatown-Cornfields/Downtown Industrial</td>
</tr>
<tr>
<td>Central City</td>
<td>Downtown Industrial</td>
</tr>
<tr>
<td>Boyle Heights</td>
<td>Downtown Industrial</td>
</tr>
</tbody>
</table>

**City of Burbank General Plan**

This is an official public document that is used as a policy guide for decisions pertaining to the physical development of the community. The General Plan is Burbank’s statement of goals, policies, and actions necessary for orderly development and growth. It is used as a guide for numerous public decisions, including all those related to land use and the preparation of capital improvement programs. The General Plan’s Land Use Element designates the general distribution, location, and extent (including standards for population density and building intensity) of uses for housing, business, industry, open space, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses. The
Land Use Element includes the Land Use Plan map. At the time this PEIR/PEIS is being prepared, the City of Burbank is updating its General Plan (City of Burbank 2006).

**City of Glendale General Plan**
This establishes the policies for use and protection of resources to meet community needs. Glendale’s General Plan contains nine sections, called elements. The elements address the topics mandated by state law (land use, circulation, housing, conservation, open space, noise and safety) and four additional topics recommended but not required by state law (air quality, community facilities, recreation, and historic preservation). The Land Use Element provides a land use map showing approved land uses for parcels throughout Glendale (City of Glendale 2006).

**Los Angeles River Master Plan (Los Angeles County)**
This provides for the optimization and enhancement of aesthetic, recreational, flood control, and environmental values by creating a community resource, enriching the quality of life for residents and recognizing the river’s primary purpose for flood control (County of Los Angeles 2006). The Los Angeles River Master Plan Goals include the following:

- Ensure that flood control and public safety needs are met;
- Improve the appearance of the river and the pride of local communities in it;
- Promote the river as an economic asset to the surrounding communities;
- Preserve, enhance, and restore environmental resources in and along the river;
- Consider stormwater management alternatives;
- Ensure public involvement and coordinate Master Plan development and implementation among jurisdictions;
- Provide a safe environment and a variety of recreational opportunities along the river; and
- Ensure safe access to and compatibility between the river and other activity centers.

The Master Plan includes the following published guidelines:

- Landscaping guidelines (LADPW 2004b) and
- Sign guidelines (LADPW 2003).

**Greater Los Angeles County Integrated Regional Water Management Plan**
The purpose of the Integrated Regional Water Management Plan (IRWMP) is to define a clear vision and direction for the sustainable management of water resources in the Greater Los Angeles County Region for the next twenty years, to present the basic information regarding possible solutions and the costs and benefits of those solutions, and to inspire the region and potential funding partners outside the region that these solutions make sense, are good for the community, and are economically feasible. The draft plan was released for comment in October 2006. It includes proposed projects within the LARRMP project area and identifies priority projects for initial funding and implementation (County of Los Angeles 2006).
Griffith Park Master Plan
In 1978, the City of Los Angeles prepared the Griffith Park Master Plan, which is currently under revision.

4.8.1.2 Significance Criteria
The Draft Los Angeles Thresholds Guide identifies two evaluation criteria for examining impacts of land use actions, land use consistency, and land use compatibility (City of Los Angeles 1998c). These criteria would become applicable if and when future implementation projects were identified in the River Corridor. At that time a land use impact would be considered significant if it were to mean either of the following:

- Land Use Consistency—Result in permanent inconsistencies with the adopted land use/density designation in the General Plan, Community Plan, redevelopment plan, specific plan for the site, or adopted environmental goals and policies of other applicable plans, or
- Land Use Compatibility—Introduce permanent features that would disrupt, divide, or isolate existing neighborhoods, communities, or land uses.

4.8.2 Potential Impacts Associated with LARRMP River Channel Modification and Open Space Development Measures in the River Corridor

4.8.2.1 River Channel Modification Measures
The proposed river channel modification measures presented in Chapter 2 include modifications to both channel geometry and to the level of vegetation within the channel. In some cases, modification measures require expanding the river ROW, diverting channels, and reconfiguring tributary confluences.

Land Use Consistency
Community Plans throughout the study area show the approved land use for the Los Angeles River ROW as Open Space. All proposed river channel modifications in the LARRMP are consistent with the Open Space land use designation. In some cases, proposed river channel modification measures may require additional lands outside of the Los Angeles River ROW. These adjoining lands may be approved for different land uses that are not consistent with the proposed Open Space use of the expanded river ROW. If in the future, river channel modification measures are considered for implementation during the subsequent community planning process that would result in land use inconsistency with approved land use in the applicable General Plan Land Use Element, then a specific assessment of the significance of the land use impact would be required. Mitigation actions may also be required. Any proposed land use that is not consistent with existing land uses as approved in the area’s Community Plan could result in high and potentially significant land use impacts.

Land Use Compatibility
All river channel modification measures would impact the configuration of the river channel and would need to be coordinated with the Corps and Los Angeles County, the flood control regulatory agencies to fully evaluate compatibility with existing uses of the river channel for flood conveyance. In addition, any of the three types of velocity-reducing channel modification measures could impact inspection and maintenance access roads along the top of the channel and would require further study of site-specific impacts associated with constructing and operating those facilities and identifying mitigation actions, where applicable.
4.8.2.2 Open Space Development Measures

Chapter 2 presents the Open Space Development Measures evaluated in this PEIR/PEIS, as follows:

- Parks;
- Green streets;
- Paseos and promenades;
- Trails and bikeways;
- Pedestrian river crossings;
- River loops;
- Gateways;
- Water quality and habitat.

Land Use Consistency

At a programmatic level, any of the identified Open Space Development Measures could result in inconsistencies with the adopted land use/density designation in the General Plan, Community Plan, redevelopment plan, specific plan for the site, or adopted environmental goals and policies of other applicable plans. If in the future an Open Space Development Measure is considered for implementation during the subsequent community planning process at a specific site, further analysis to identify all relevant land use plans and policies and to evaluate the measure’s consistency with those plans and policies will be required. Evaluation of consistency and compatibility should include the Master Plans in place for the Los Angeles River, Sepulveda Basin, and Griffith Park and the General Plans for Rio De Los Angeles and Los Angeles State Historic Parks in the River Corridor, where applicable. Consistency and compatibility with the IRWMP and any projects approved for funding therein should also be evaluated. Any proposed land use that is not consistent with existing land uses as approved in the area’s Community Plan could result in high and potentially significant land use impacts. If significant impacts are identified, mitigation measures will need to be identified and evaluated to reduce potential impacts to less than significant levels.

Land Use Compatibility

Since most of the Open Space Development Measures serve to connect communities to the river and thus each other, implementing the measures is not expected to introduce permanent features that would disrupt, divide, or isolate neighborhoods, communities, or land uses. If in the future an Open Space Development Measure is considered for implementation during the subsequent community planning process at a specific site, further analysis would be required to evaluate the compatibility of that measure with existing land uses in the project area. If impacts were identified, mitigation measures would need to be identified and evaluated.

Some general considerations specific to each major category of Open Space Development Measures include the following:

- **Parks**: Four types of parks are included in the LARRMP that correspond to varying levels of land availability and recreational use. Creating the parks may require acquiring lands currently approved for other land uses. Any conversion of lands currently identified for other uses in the area’s General Plan, Community Plan, and Specific Plan would require further analysis to identify the impacts of the
land use change and to identify mitigation measures if needed. Impacts for change in land use would be more significant as the area of the proposed change increases. This proposed measure would require coordinating with flood control regulatory agencies to assess any impacts on flood control project inspection and maintenance roads.

- **Green Streets**: Significant land use impacts are not expected to result from implementation of any of the three types of green street measures presented in Section 2 of this PEIR/PEIS. The nature of these proposed features is to modify aspects of the pedestrian and vehicular experience in these river connection corridors rather than change the existing land use.

- **Paseos and Promenades**: Land use impacts from implementing this Open Space Development measure in and of itself are not expected, unless implementing the measure required a change in land use at the implementation site. These measures are typically associated with other reinvestment measures that could result in inconsistencies with approved land uses at specific implementation sites.

- **Trails and Bikeways**: The Nonmotorized Transportation Element of the City of Los Angeles General Plan identifies a bikeway network along the entire River Corridor. No significant land use impacts are expected by implementing trails and bikeways in the River Corridor that are consistent with the General Plans of the associated communities.

- **Pedestrian River Crossings**: There are no expected impacts on land use plans and policies from implementing this Open Space Development measure. Such proposed measures would require coordinating with flood control regulatory agencies to assess any impacts on flood control conveyance and any impacts on inspection and maintenance roads.

- **River Loops**: Land use impacts from implementation of this Open Space Development measure would not be expected unless implementing the measure required lands outside the Los Angeles River ROW that would be inconsistent with existing approved land uses at the implementation site. The river loops will typically be associated with other open space measures and/or reinvestment measures along the loop that could result in inconsistencies with approved land uses. This proposed measure would require assessment of any potential impacts on flood control project inspection and maintenance roads.

- **Gateways**: Land use impacts from implementing this Open Space Development measure are not expected unless implementing the measure required a change in land use at the implementation site. Where the gateways provide access to the Los Angeles River ROW, compatibility with flood control maintenance and inspection paths should be assessed.

- **Water Quality and Habitat**: Development of lands for water quality or habitat enhancements would require that those lands be approved for use as open space. Any conversion of lands currently identified for other than open space uses in the area’s General Plan, Community Plan, and Specific Plan would require further analysis to evaluate potential impacts on the approved land use category and to identify mitigation measures. Impacts for change in land use are expected to be more significant as the area of the proposed change increases.

### 4.8.2.3 Potential Impact Levels

As future LARRMP river channel and open space modification projects are identified in the River Corridor, there would likely be high and potentially significant land use impacts occurring when proposed land use is not consistent with existing land uses as approved in the area’s Community Plan. Those river channel
modification measures that would require lands outside of the current Los Angeles River ROW are expected to result in inconsistencies with current approved land uses at most implementation sites. Similarly, most open space development measures requiring land acquisition also could result in inconsistencies with current approved land uses at implementation sites. Site-specific impact analyses would be required to assess the significance of these land use impacts as projects are considered for implementation during the subsequent community planning process to reduce potential impacts to less than significant levels.

LARRMP revitalization measures are expected to be implemented over an extended time frame and at various locations along the 32-mile River Corridor. Site-specific impact levels of river channel modification measures requiring land use changes could be considered to be low since they typically require an incremental extension of the existing River Corridor at specific sites.

Potentially high-impact open space development measures are those that require the largest areas of land acquisition and land use conversion, such as riverfront park measures, relatively large water quality and habitat measures, and the reinvestment measures that could be associated with paseos and promenades and river loops. Other open space measures (green streets, trails and bikeways, pedestrian river crossings, and gateways) are expected to be low impact, relative to land use.

Future evaluation of the significance of land use changes will need to be weighed against the beneficial impacts of land use changes (for example, more open space land use, which is an objective of most community plans in the River Corridor) with adverse impacts (for example, loss of industrial lands which the City is trying to preserve). These future impact analyses will require community involvement and may necessitate modifications to community plans and other general plan elements.

4.8.2.4 Mitigation Actions
Site-specific land use impact studies are required to assess the significance of land use impacts of LARRMP revitalization measures before they are implemented. The findings of these studies are required before appropriate mitigation actions are identified for these projects. Appropriate mitigation actions would vary depending on the type of land use impacted and the extent of the impact. Generally, the types of mitigation measures to be identified should include the following:

- Avoiding land use impact altogether by not taking a certain action or parts of an action and by developing plans that are consistent with community planning area land use plans;
- Minimizing land use impacts by limiting the degree or magnitude of the action and its implementation;
- Rectifying the land use impact by repairing, rehabilitating, or restoring the impacted land use;
- Reducing or eliminating the land use impact over time by preservation and maintenance operations;
- Compensating for the land use impact by replacing or providing substitute resources.

4.8.3 Canoga Park Opportunity Area

4.8.3.1 Introduction
There are two alternative configurations of measures considered for the Canoga Park Opportunity Area, Alternative CP-A and Alternative CP-B. Each alternative includes River Channel Modification Measures,
Open Space Development Measures, and Reinvestment Measures. The two alternatives are summarized below and described in detail in Chapter 2.

**Alternative CP-A**

*River Channel Modification Measures*
Alternative CP-A involves proposed river channel terracing on the north bank, including a 15-foot-wide walkway and water quality treatment terraces within the river ROW. On the south side of the river, additional river ROW acquisition is proposed to create treatment terraces and a riverfront park. The channel bottom will be modified to develop intermittent habitat areas throughout the opportunity area.

*Open Space Development Measures*
Alternative CP-A includes a proposed riverfront park on the south side of the river, a linear park on the north side of the river, and a pocket park near the Los Angeles River confluence. Regional greenway connections, arterial green streets, and local green streets are proposed in locations throughout the opportunity area. One paseo on the north side or the river and promenades running along the river on both banks are proposed. The alternative also includes proposed bikeways and trails, bridge underpasses, pedestrian river crossings, regional and neighborhood gateways, and water quality enhancement measures.

*Reinvestment Measures*
Land acquisition for public use would be encouraged for parcels that have near-term potential to be developed as open space measures. Reinvestment would rely on responses of private property owners to revitalization improvements and opportunities.

**Alternative CP-B**

*River Channel Modification Measures*
Same as for Alternative CP-A, except the terrace on the north and south sides between Canoga and Variel is extended by 800 feet, and Arroyo Calabasas is daylighted to provide an urban water feature within the new riverfront park.

*Open Space Development Measures*
Same as for Alternative CP-A, except the riverfront park is extended to the southwest, three additional paseos and a paseo promenade is included, and an additional neighborhood gateway is added.

*Reinvestment Measures*
The level and intensity of reinvestment measures would be substantially increased over Alternative CP-A, including the following:

- Rebuilding the river within this opportunity area from the confluence of Belle Creek and Arroyo Calabasas to demonstrate the potential of collaborative measures;
- Investing in river revitalization spurring collaborative private investment;
- Increasing density and influencing land use mix based on LARRMP revitalization goals and objectives;
• Developing a mixed-use village within the Canoga Park Opportunity Area with a major retail and entertainment center that is connected to the Orange Line and Westfield Center;
• Developing open space greenway connections and internal greenways to support the mixed-use village concept; and
• Protecting single family homes in the area.

4.8.3.2 Potential Impacts and Mitigation Actions—Alternative CP-A

River Channel Modification Measures
As the Canoga Park/Winnetka/Woodland Hills/West Hills Community Plan already has the river ROW zoned for Open Space use, no change to the General Plan would be required for the proposed channel modifications unless the proposed changes extend beyond the ROW into lands zoned for other uses. If future design of the river channel modifications identifies a requirement for lands outside the existing ROW, any proposed changes to existing approved land use would require a study of impacts of the proposed change, including identifying mitigation actions where applicable.

Channel modifications within the Los Angeles River ROW would require coordination with, and approval from, the flood control regulatory agencies (the Corps and Los Angeles County). River terracing could impact access for flood control inspection and maintenance. Any identified impacts on flood control conveyance or maintenance access may require mitigation.

Open Space Development Measures

Riverfront Park
The proposed riverfront park is not consistent with the existing Canoga Park/Winnetka/Woodland Hills/West Hills Community Plan. The current community plan shows the approved land uses of Commercial, Industrial, and Public Facilities in the proposed riverfront park area that would require conversion to the category of Open Space. Further study of the impacts of these land use changes and identification of mitigation actions if appropriate would be required before implementing the riverfront park measure. The proposed riverfront park could impact access for flood control inspection and maintenance. Any identified impacts on flood control conveyance or maintenance access may require mitigation.

Linear Parks
The proposed linear park on MTA property is not consistent with the existing Canoga Park/Winnetka/Woodland Hills/West Hills Community Plan. The current Community Plan shows the approved land use for the site as Public Facilities. The proposed linear park area would require conversion to the category of Open Space. The proposed linear park at Bassett Street is consistent with the Community Plan, which shows the approved land use from Los Angeles River to Bassett as Open Space, with the exception of that portion on the MTA property that is approved for Public Facilities land use. The impacts of these proposed land use changes would have to be studied and mitigation actions would have to be identified before implementing either linear park measures. Coordination with MTA would be needed to fully assess impacts of converting MTA property to open space to ensure compatibility with future transportation projects. (The Community Plan cites the following opportunity: “MTA Right-of-Way offers the opportunity for a variety of public transportation improvements including light rail, busways, and pedestrian/bike trails.”)
Pocket Park
The proposed pocket park is not consistent with the existing Canoga Park/Winnetka/Woodland Hills/West Hills Community Plan. The current Community Plan shows the approved land use for the site as Public Facilities. The proposed pocket park area would require conversion to the category of Open Space. The impact of this proposed land use change would have to be studied and mitigation actions would have to be identified before implementing this pocket park measure. A compatibility analysis with the plans of the Los Angeles Unified School District for future use of the site and associated lands of Canoga Park High School would be required before the proposed pocket park is implemented.

Green Streets
No land use consistency impacts are expected to occur from implementing the various green streets measures. Before they are implemented, the compatibility of proposed green streets measures with transportation improvement plans would need to be assessed to ensure compatibility.

Paseos and Promenades
If the implementation of the proposed paseo were to require a change from the currently approved land use for the area (Industrial), then further study of the impacts of this change in land use would be required, including the identification of appropriate mitigation measures if applicable. The proposed promenades should not impact approved land use as long as the promenades are physically located within the channel ROW which is currently approved for Open Space land use. If implementation of the promenades requires a change in land use (for example the channel ROW is much narrower around Bell Creek where the surrounding lands are approved for Public Facilities land use), analysis of the impacts associated with the proposed change in land use would be required, including identifying appropriate mitigation actions if applicable.

If the implementation of this paseo or promenade were to require the conversion of approved land uses to new land use categories, then the compatibility of the new land uses with surrounding land uses and policies would have to be studied. Implementing the proposed promenades could impact existing access for flood control inspection and maintenance. Any identified impacts on flood control conveyance or maintenance access may require mitigation.

Bikeways and Trails
The Nonmotorized Transportation Element of the City of Los Angeles General Plan identifies a planned bikeway network along the entire River Corridor. No significant land use impacts are expected by implementing trails and bikeways within the river channel ROW that are consistent with the General Plans of the associated communities. Implementing the proposed bikeways and trails could impact existing access for flood control inspection and maintenance. Any identified impacts on flood control maintenance access may require mitigation. Before the City of Los Angeles implements the bikeway network along the River Corridor, it should assess the compatibility of proposed bridge underpasses with transportation improvement plans to ensure compatibility.

Pedestrian River Crossings
No land use consistency impacts are expected from implementing the proposed Pedestrian River Crossing measures.
**Water Quality Enhancements**

No land use consistency impacts are expected if the water quality enhancement measure is within the Los Angeles River ROW which is already approved for use as open space. If implementation of the proposed measure requires a change in land use, the impacts associated with the proposed change would have to be analyzed, including identifying appropriate mitigation actions if applicable. The proposed water quality enhancement measure would overlap with the river channel ROW, which is currently used for flood control conveyance, inspection, and maintenance. Any identified impacts on flood control conveyance or maintenance access may require mitigation.

**Reinvestment Measures**

As lands are acquired for public uses, such as Open Space, a consistency evaluation would be required to determine if the proposed land use is consistent with approved land uses in the Canoga Park/Winnetka/Woodland Hills/West Hills Community Plan or any applicable Specific Plans. A study of the impacts of any proposed land use changes and identification of mitigation actions if appropriate would be required before implementing any proposed land use changes. The compatibility with design guidelines for Open Space associated with adjoining Warner Center Specific Plan should be evaluated before the changes are implemented.

**4.8.3.3 Potential Impacts and Mitigation Actions—Alternative CP-B**

The potential land use impacts of the revitalization measures included in Alternative CP-B are expected to be the same as those for Alternative CP-A, except where noted below.

**River Channel Modification Measures**

Greater land use impacts are expected than with Alternative CP-A due to the added feature of daylighting Arroyo Calabasas, which currently runs under the north parking lot of Topanga Plaza Shopping Center. Other potential land use impacts are similar to those described for Alternative CP-A, except that the river terracing is extended for 800 additional feet back from the riverbanks.

**Open Space Development Measures**

**Parks**

Land use impacts of the proposed riverfront park would be the same as those for Alternative CP-A, except that expanding the park westward to Arroyo Calabasas would also require converting Public Facilities, Commercial, and Residential Multifamily to Open Space. Expanding the park eastward to Variel Avenue would also require converting lands approved for Residential Multifamily land use to Open Space.

**Paseos and Promenades**

These measures have more potential for land use impact than with CP-A as there are four proposed paseos and one paseo promenade proposed for Alternative CP-B and only one paseo proposed for Alternative CP-A. All four proposed paseos are in land currently zoned for commercial use, which may be more compatible with any associated revitalization measures than Alternative CP-A, where the one proposed paseo is on land approved for Industrial land use.
4.8 Land Use

Reinvestment Measures
Potential land use impacts associated with Alternative CP-B would be greater than for Alternative CP-A because the level and intensity of reinvestment measures would substantially increase. Proposed changes to density and land use mix from those specified in the Canoga Park/Winnetka/Woodland Hills/West Hills Community Plan would require further study of the impacts of proposed changes and identification of mitigation actions. Development of the proposed mixed use village would likely require modifying the Community Plan. The impacts of proposed land use changes would have to be studied and mitigation actions would have to be identified. Developing the proposed internal greenways could require changing the approved land use and studying the impacts of proposed changes and identifying mitigation actions, if applicable. The compatibility with the adjoining Warner Center Specific Plan should be evaluated before the changes are implemented.

4.8.3.4 Evaluation of Impact Levels—Alternatives CP-A and CP-B
Future implementation of Alternative CP-A would result in high and potentially significant land use impacts if proposed land use is not consistent with existing land uses as approved in the area’s Community Plan. In general, greater land use impacts would be associated with Open Space development measures (primarily associated with parks, paseos, and promenades, which are proposed on lands currently approved for other Commercial, Industrial, and Public Facilities uses). Site-specific impact analyses would be required to assess the significance of land use impacts as projects are considered for implementation during the subsequent community planning process to reduce potential impacts to less than significant levels.

Future implementation of Alternative CP-B is also generally expected to have high and potentially significant land use impacts. The land use changes identified for Alternative CP-A would be expanded with CP-B to include land use conversion associated with river channel modifications from the proposed daylighting of Arroyo Calabasas. The land use conversions associated with Open Space developments would be high because the increased number and footprint of proposed parks, paseos, and paseo promenades, which would require relocating some residential multifamily land use in the opportunity area. The proposed focus on reinvestment in the opportunity area would have considerable impacts on land use. Reinvestment projects include increasing density and land use mix, developing a mixed-use village within the Canoga Park Opportunity Area with a major retail and entertainment center connected to the Orange Line and Westfield Center, and developing open space greenway connections and internal greenways to support the mixed-use village concept. Site-specific impact analyses would be required to assess the significance of land use impacts as projects are considered for implementation during the subsequent community planning process to reduce potential impacts to less than significant levels.

While converting the land uses associated with the Open Space Development and Reinvestment measures is not consistent with current land use mapping for most of the implementation sites, the proposed uses do beneficially address identified needs in the Community Plan, including the following:

- Accelerated addition, expansion, or improvement of local parks throughout the community;
- Continued development of equestrian, hiking and bicycle trails;
- More residential and mixed use development along commercial corridors;
- Appropriate transition between industrial, commercial (mixed use), and adjoining (primarily residential) uses; and
• Revitalization and recycling of existing commercial and industrial developments,

Both alternatives would have a net beneficial impact on land use, based on these identified needs in the Community Plan if mitigation measures appropriate for offsetting high adverse impacts are implemented.

4.8.4 River Glen Opportunity Area

4.8.4.1 Introduction
The two alternative configurations of measures considered for the River Glen Opportunity Area are Alternative RG-A and Alternative RG-B. Each alternative includes river channel modification measures, open space development measures, and reinvestment measures. The two alternatives are summarized below and are described in detail in Chapter 2.

Alternative RG-A

River Channel Modification Measures
Alternative RG-A involves modifying the Verdugo Wash confluence to provide a water quality treatment wetland, terracing the river channel east bank, and modifying the channel bottom to develop intermittent habitat areas.

Open Space Development Measures
Alternative RG-A includes developing a continuous linear terraced park on the east bank of the river, developing green streets at locations throughout the opportunity area, and developing two paseos on the east side of the river and a promenade along the east bank of the river throughout the opportunity area. Additional open space measures include developing bikeways and trails, pedestrian river crossings, bridge underpasses, regional and neighborhood gateways, and water quality/habitat features.

Reinvestment Measures
Currently underserved by its roadway network, this light industrial area would be the focus of an extensive roadway improvement plan to create a contiguous roadway network with expanded ROW, to improve functionality, and to create a continuous north-south connection within the area. This revitalization alternative also includes reconfiguring the Colorado Street freeway exit to remove the jug-handle at Edenhurst Avenue and creating an at-grade intersection providing north and south movement where only southern access exists. This alternative further includes protecting land uses and acquiring recyclers for the confluence business park.

Alternative RG-B

River Channel Modification Measures
These are the same as those for Alternative RG-A, except Verdugo Wash would be realigned to enter the Los Angeles River farther downstream, creating a small island of habitat, an additional ROW would be acquired along the east bank, and the river channel would be terraced to provide a series of street end parks and water quality treatment terraces.
Open Space Development Measures
Same as for Alternative RG-A except the continuous linear terraced park is developed with greater emphasis on water quality enhancement measures, the proposed paseos are longer, there is an additional regional gateway and an additional neighborhood gateway, and the water quality/habitat features are expanded by creating an island at the Verdugo Wash confluence and developing a riverine habitat area east of the Golden State Freeway to bring the river into Griffith Park to the south of the Griffith Park Zoo.

Reinvestment Measures
These are the same as those for Alternative RG-A, except that grade separated crossings are developed at W. Milford and W. Broadway at San Fernando Road to provide safer vehicular and pedestrian access to the industrial area and the river. Also, existing land uses are redeveloped to capture economic development opportunities created by ongoing river revitalization.

4.8.4.2 Potential Impacts and Mitigation Actions—Alternative RG-A

River Channel Modification Measures
Expanding the confluence function to provide the proposed regional water quality treatment wetland would require converting land currently approved for industrial use by the City of Glendale (north of the confluence) and the City of Los Angeles (south of the confluence) for industrial use. Impact analysis of the proposed change in land use would be required, including identifying mitigation measures if applicable.

Terracing the east bank of the Los Angeles River and modifying the channel bottom to provide intermittent habitat areas would be consistent with existing land use where the channel modifications remain within the existing ROW for the Los Angeles River. Currently approved land use in the vicinity of the Los Angeles River east bank is for industrial land. If the proposed terracing requires converting industrial lands for open space use, then the proposed change in land use would have to be analyzed, including identifying mitigation measures, if applicable.

Channel modifications would require coordinating with, and approval from, the flood control regulatory agencies, which are the Corps and Los Angeles County. River terracing could impact existing access for flood control inspection and maintenance. Any identified impacts on flood control conveyance or maintenance access may require mitigation.

Open Space Development Measures

Linear Park
Development of the linear park could require a change of land use from the currently approved Industrial lands and Public Facilities (Glendale Water Reclamation Plant) for use as Open Space. Impact analysis of the proposed change in land use would be required, including identifying mitigation measures, if applicable. Implementing the linear park could impact existing access for flood control inspection and maintenance. Any identified impacts on flood control conveyance or maintenance access may require mitigation. Further study of compatibility with facilities plans for the Glendale Water Reclamation Plant would also be required.
**Green Streets**
No land use consistency impacts are expected from implementing the various green streets measures. Before they are implemented, the compatibility of proposed green streets measures with transportation improvement plans needs to be assessed to ensure compatibility.

**Paseos and Promenades**
If the implementation of the proposed paseo were to require a change from the currently approved land use for the area (Industrial), then the impacts of this change in land use would need to be studied, including identifying appropriate mitigation measures, if applicable. The proposed promenades should not impact approved land use as long as the promenades are located within the channel ROW, which is currently approved as Open Space. If implementing the promenades requires a change in land use (for example, additional lands outside the river ROW are required that are approved for other land uses), the impacts associated with the proposed change in land use would have to be analyzed, including identifying appropriate mitigation actions, if applicable. If the implementation of this paseo or promenade requires converting approved land uses to new land use categories, then the compatibility of the new land uses with surrounding land uses and policies would have to be studied. Implementing the proposed promenades could impact existing access for flood control inspection and maintenance. Any identified impacts on flood control conveyance or maintenance access may require mitigation.

**Bikeways and Trails**
The Nonmotorized Transportation Element of the City of Los Angeles General Plan identifies a planned bikeway network within the Los Angeles River ROW along the entire River Corridor. No significant land use impacts are expected by implementing trails and bikeways within the river channel ROW that are consistent with the General Plans of the associated communities. Implementing the proposed bikeways and trails could impact existing access for flood control inspection and maintenance. Any identified impacts on flood control maintenance access may require mitigation. Before the City of Los Angeles implements the bikeway network along the River Corridor, it should assess the compatibility of proposed bridge underpasses with transportation improvement plans to ensure compatibility.

**Pedestrian River Crossings**
No land use consistency impacts are expected from implementing the proposed pedestrian river crossing measures.

**Water Quality Enhancements**
Expanding the Verdugo Wash confluence function to provide the proposed regional water quality treatment wetland would require converting land approved for industrial use by the City of Glendale (north of the confluence) and the City of Los Angeles (south of the confluence) for Industrial use. The proposed change in land use will have to be analyzed, including identifying mitigation measures, if applicable. Channel modifications will require coordinating with, and approval from, the flood control regulatory agencies, which are the Corps and Los Angeles County. Any identified impacts on flood control conveyance or maintenance access may require mitigation.

**Reinvestment Measures**
Expanding the roadway network ROW within the opportunity area would reduce the amount of land available for the approved land uses (Industrial and Public Facilities). The impacts on the existing land uses
would have to be analyzed before the reinvestment measures were implemented, including identifying mitigation measures, if applicable. Before the measures were implemented, the compatibility of proposed road improvements with existing transportation improvement plans would have to be assessed.

4.8.4.3 Potential Impacts and Mitigation Actions—Alternative RG-B

The potential land use impacts of the revitalization measures included in Alternative RG-B are expected to be the same as those for Alternative RG-A, except where noted below.

**River Channel Modification Measures**

The land acquisition for additional river terracing and creation of street-end parks and water quality treatment terraces would require converting lands currently approved for Industrial use to Open Space use. Analysis of the proposed change in land use would be required, including identifying mitigation measures, if applicable.

**Open Space Development Measures**

**Paseos and Promenades**

There would be similar types of impacts as with Alternative RG-A, except that the proposed paseos would be approximately three blocks long with Alternative RG-B, as opposed to two blocks long with Alternative RG-A.

**Water Quality and Habitat**

The realignment of the confluence would have a similar level of land use impact as with Alternative RG-A. The proposed water quality/habitat area within Griffith Park is consistent with the currently approved land use of Open Space. The proposed water feature within Griffith Park could conflict with plans of park management. A compatibility analysis of the proposed water feature in Griffith Park with park management, the community, and the Griffith Park Master Plan should be conducted before this feature is implemented. The expansion of the river ROW to provide water quality treatment terraces on the east bank would impact existing land uses at the sites.

**Reinvestment Measures**

Potential land use impacts associated with Alternative RG-B would be greater than for Alternative RG-A because the level and intensity of reinvestment measures would increase. Land use redevelopment could result in proposed changes to current approved land use designations in the opportunity area, that is Industrial and Public Facilities.

4.8.4.4 Evaluation of Impact Levels—Alternatives RG-A and RG-B

Future implementation of Alternative RG-A would result in high and potentially significant land use impacts if proposed land use is not consistent with existing land uses as approved in the area’s Community Plan. The greater land use impacts would be associated with river channel modifications at the Verdugo Wash confluence open space development measures, such as the linear park, paseos, and promenades that are proposed on lands currently approved for other Industrial and Public Facilities uses. Site-specific impact analyses would be required to assess the significance of land use impacts as projects are considered for implementation during the subsequent community planning process to reduce potential impacts to less than significant levels.
Future implementation of Alternative RG-B would generally have higher land use impacts than Alternative RG-A, although the general impact level is still considered to be high and potentially significant. The greater impacts with Alternative RG-B, relative to Alternative RG-A, are a result of added acquisition of Industrial lands for conversion to Open Space use to accommodate the proposed expanded river terracing. Site-specific impact analyses would be required to assess the significance of land use impacts as projects are considered for implementation during the subsequent community planning process to reduce potential impacts to less than significant levels.

While converting the land uses associated with the Open Space Development and Reinvestment measures is not consistent with current land use mapping for most of the implementation sites, the proposed uses do beneficially address identified needs in the applicable sections of the General Plans of Los Angeles and Glendale, as follows:

- An extreme deficit of both community and neighborhood park facilities in Glendale
- Provision of unlined stream channels and water basins as a means to replenish underground aquifers;
- Reduced surface water and groundwater pollution;
- Increased open space near residential areas;
- More residential and mixed-use development along commercial corridors;
- Appropriate transitions between commercial (mixed use) and adjoining uses, especially residential; and
- More pedestrian-friendly shopping areas

Both alternatives would have a net beneficial impact on land use, based on these identified needs in the Community Plan if mitigation measures appropriate for reducing or offsetting adverse impacts are implemented.

4.8.5 Taylor Yard Opportunity Area

4.8.5.1 Introduction
There is one configuration of River Channel Modification Measures, Open Space Development Measures, and Reinvestment Measures proposed in the LARRMP for the Taylor Yard Opportunity Area. The configuration of measures is summarized below and described in detail in Chapter 2.

River Channel Modification Measures
Proposed measures involve terracing the east bank of the river channel for approximately one mile within the opportunity area to provide for water quality treatment terraces. Additionally, the channel bottom would be modified to develop intermittent habitat areas.

Open Space Development Measures
Proposed measures include developing a regional park on the parcel between the river and the Metrolink/rail corridor to the southwest of the new state park, a continuous linear park along the western edge of the river between Fletcher Drive and the Pasadena Freeway, seven pocket parks on the west side of the river, green street improvements at locations throughout the opportunity area, ten paseos (four on the east side of the
river and six on the west side), and a promenade along the east bank from Glendale Highway to Granada Street. Additional open space development measures in this alternative include bikeways and trails, pedestrian river crossings, bridge underpasses, a series of regional and neighborhood gateways, and water quality/habitat enhancement measures.

Reinvestment Measures
Taylor Yard planning efforts would establish land use on the east bank of the river. Emphasis in the LARRMP is placed on green connections along the east and west banks of the river to surrounding neighborhoods and parks and multi-use bridges connecting the neighborhoods on the west side of the river to the proposed parks and Rio De Los Angeles State Park on the east side of the river. Market pressure would gradually cause small industry on the west bank to be replaced with mixed-use development, in keeping with the river revitalization theme.

4.8.5.2 Potential Impacts and Mitigation Actions

River Channel Modification Measures
Terracing the east bank of the Los Angeles River and modifying the channel bottom to provide intermittent habitat areas would be consistent with existing land use where the channel modifications remain within the ROW for the Los Angeles River. Currently, approved land use in the vicinity of the Los Angeles River east bank is for Industrial land. If the proposed terracing requires converting Industrial lands for Open Space use, then the proposed change in land use would need to be analyzed and mitigation measures would have to be identified, if applicable.

Channel modifications would require coordinating with and approval from the Corps and Los Angeles County, the flood control regulatory agencies. River terracing can impact access for flood control inspection and maintenance. Any identified impacts on flood control conveyance or maintenance access may require mitigation.

Open Space Development Measures

Riverfront Park
The proposed riverfront park would require a change of land use from the Industrial land use category to Open Space. The proposed change in land use would need to be analyzed, and mitigation measures would have to be identified, if applicable, before this measure could be implemented. Implementing the Riverfront Park could impact existing access for flood control inspection and maintenance. Any identified impacts on flood control conveyance or maintenance access may require mitigation.

Linear Park
If development of the proposed linear park requires lands outside of the current River Corridor, then there would be a land use consistency impact requiring the conversion of currently approved land uses in the area to Open Space. Existing approved land uses adjoining the southwest bank of the Los Angeles River in this area are found in the Silver Lake-Echo Park-Elysian Valley Community Plan and include Industrial, Public Facilities, and Single-Family Residential. The proposed change in land use would need to be analyzed, and mitigation measures would have to be identified, if applicable, before this measure could be implemented.
Implementing the linear park could impact existing access for flood control inspection and maintenance. Any identified impacts on flood control conveyance or maintenance access may require mitigation.

**Pocket Parks**
Development of the proposed pocket parks is not consistent with the approved land uses in the Silver Lake-Echo Park-Elysian Valley Community Plan. Current approved land uses in the locations of these parks are for Industrial (the upstream four proposed parks) and Single-Family Residential (the downstream three proposed parks). The proposed changes in land use would need to be analyzed, and mitigation measures would have to be identified, if applicable, before this measure could be implemented.

**Green Streets**
No land use consistency impacts are expected to occur from implementing the various green streets measures. Before proposed green streets measures are implemented, their compatibility with transportation improvement plans needs to be assessed.

**Paseos and Promenades**
If implementing the proposed paseos would require a change from the Industrial land use for the area, then the impacts of this change would need to be studied, and appropriate mitigation measures would need to be identified, if applicable. The proposed promenade should not impact approved land use as long as the promenade is located within the channel ROW, which is currently approved for Open Space land use. If the promenade requires a change in land use, the impacts of the proposed change in land use would need to be analyzed, and appropriate mitigation actions, if applicable, would have to be analyzed.

Similarly, if these paseos or the promenade require converting approved land uses to new land uses, then their compatibility with surrounding land uses and policies would have to be studied. Implementing the proposed promenades could impact access for flood control inspection and maintenance. Any identified impacts on flood control conveyance or maintenance access may require mitigation.

**Bikeways and Trails**
The Nonmotorized Transportation Element of the City of Los Angeles General Plan identifies a planned bikeway network within the Los Angeles River ROW along the entire River Corridor. No significant land use impacts are expected by implementing trails and bikeways within the river channel ROW that are consistent with the General Plans of the associated communities. Implementing the proposed bikeways and trails could impact access for flood control inspection and maintenance. Any identified impacts on flood control maintenance access may require mitigation. Before the City of Los Angeles implements the bikeway network along the River Corridor, it should assess the compatibility of proposed bridge underpasses with transportation improvement plans to ensure compatibility.

**Pedestrian River Crossings**
No land use consistency impacts are expected from implementing the proposed pedestrian river crossing measures.

**Water Quality Enhancements**
No land use consistency impacts are expected if the water quality enhancement measure is within the Los Angeles River ROW, which is already approved as Open Space. If the proposed measure requires a change in
land use, the impacts associated with the proposed change would have to be analyzed, and appropriate mitigation actions, if applicable, would need to be identified. The proposed water quality enhancement measure would overlap with the river channel ROW, which is currently used for flood control conveyance, inspection, and maintenance. Any identified impacts on flood control conveyance or maintenance access may require mitigation.

**Reinvestment Measures**
Because no specific reinvestment actions are included in the proposed suite of measures for the opportunity area, no impacts are expected from these measures. The proposed plan assumes that any land use changes for reinvestment would occur without implementing specific reinvestment measures as part of the LARRMP. Since no reinvestment measures are included, no issues with land use compatibility are expected.

**4.8.5.3 Evaluation of Impact Levels**
Future implementation of the proposed configuration of revitalization measures would result in high and potentially significant land use impacts if proposed land use is not consistent with existing land uses as approved in the area’s Community Plan. The greater potential land use impacts would be associated with Open Space development measures. These measures are primarily associated with the proposed linear and riverfront parks, paseos, and promenades, which are proposed on lands currently approved for other Industrial, Public Facilities, and Single-Family Residential. Site-specific impact analyses would be required to assess the significance of land use impacts as projects are considered for implementation during the subsequent community planning process to reduce potential impacts to less than significant levels.

While converting the land uses associated with the Open Space development measures is not consistent with current land use mapping for most of the implementation sites, the proposed uses do beneficially address identified needs in the community plans for Silver Lake, Echo Park, Elysian Valley, and Northeast Los Angeles and include the following:

- Planning and zoning actions that minimize incompatibilities between uses;
- More parkland and open space for a variety of uses, including passive and active recreation;
- More community gathering space and facilities to strengthen civic participation and neighborhood identity;
- Improved connections between parks and open space with a system of bike and pedestrian paths;
- Integration of new park facilities and green spaces into existing open space/recreation network;
- Greater efforts to develop a continuous greenway along the Los Angeles River that would add, enhance, and provide links between recreation and open space facilities, providing diverse recreational uses and viable nonmotorized transportation alternatives;
- Acquisition of land that would link and complete greenways and pedestrian and bike paths throughout the plan area to key nearby open space/recreational resources, including Elysian Park, the Los Angeles River, the Los Angeles State Historic Park, Taylor Yards, and Griffith Park.
- Improved aesthetics, amenities, and public access at areas adjacent to the Los Angeles River, Arroyo Seco, and other flood control channels.
Future implementation of the proposed revitalization measures at the Taylor Yard Opportunity Area would have a net beneficial impact on land use, based on these identified needs in the Community Plan, if mitigation measures appropriate for reducing or offsetting adverse impacts are implemented.

4.8.6 Chinatown-Cornfields Opportunity Area

4.8.6.1 Introduction
There are two alternative configurations of measures considered for the Chinatown-Cornfields Opportunity Area: Alternative CC-A and Alternative CC-B. Each alternative includes measures for River Channel Modification, Open Space Development, and Reinvestment. The two alternatives are summarized below and are described in detail in Chapter 2.

Alternative CC-A

River Channel Modification Measures
Alternative CC-A involves terracing the west bank up to the railroad tracks to provide a linear park and terracing the east bank within the ROW to provide public access to the river’s edge, including an urban promenade along the top of the bank. Additional public access would be provided on the west bank by developing a walkway at the top of the bank with steps leading to the river’s edge.

Open Space Development Measures
Alternative CC-A includes development of a riverfront park to connect the Los Angeles State Historic Park eastward to the river channel. A linear park would connect the western edge of the state park to the terraced riverbank area. Three paseos, a paseo promenade, and a riverfront promenade along the east river bank are also proposed. Other open space measures include developing bikeways and trails, pedestrian river crossings, bridge underpasses, and regional and neighborhood gateways and enhancing water quality/habitat.

Reinvestment Measures
All properties within the opportunity area would be looked at as potential reinvestment areas, with the exception of the William Mead Housing Project and its associated school and the DWP transfer station. The reinvestment focus would be on creating residential/mixed-use frontage along Spring Street, mixed-use traditional on Main Street, and residential frontage along the linear open space between the state park and the river. Existing lot and block structure would be continued to allow incremental redevelopment to use existing infrastructure where possible.

Alternative CC-B

River Channel Modification Measures
These are the same as those for Alternative CC-A, except a channel diversion would be created, allowing the creation of a small island that supports habitat and passive recreation, such as hiking and bird watching. The west edge of the diversion would transition from riparian to upland habitat and the park.
Open Space Development Measures
These are the same as those for Alternative CC-A, except one of the proposed paseos is in a different location, there is one additional paseo promenade proposed, and the locations of some of the proposed regional and neighborhood gateways are different.

Reinvestment Measures
Alternative CC-B differs from Alternative CC-A in that all properties within the opportunity area would be looked at as potential reinvestment areas. With the DWP transfer station potentially relocated or incorporated into the proposed island, the DWP property would be available for redevelopment. Redevelopment would be focused on revised parcelization based on river revitalization opportunities. Schools would be redeveloped, and public housing would be relocated and redeveloped.

4.8.6.2 Potential Impacts and Mitigation Actions—Alternative CC-A

River Channel Modification Measures
The proposed river bank terracing on both banks would require modifying approved land uses of Industrial and Public Facilities to Open Space. Any proposed changes to existing approved land use would require a study of impacts of the proposed change, including identifying mitigation actions, where applicable. Further analysis of consistency with the Alameda District Specific Plan in the vicinity of the proposed measure would need to be conducted before the measure is implemented.

Open Space Development Measures

Riverfront Park
Extending the state park to the Los Angeles River would require modifying the current Industrial land use to Open Space. Any proposed changes to existing approved land use would require a study of impacts of the proposed change, including identifying mitigation actions, where applicable. Implementing the Riverfront Park could impact existing access for flood control inspection and maintenance. Any identified impacts on flood control conveyance or maintenance access may require mitigation.

Linear Parks
The areas surrounding the proposed linear parks are approved for Multifamily Residential use, Industrial use, and Public Facilities use. Development of the linear parks would require converting some of these areas to Open Space. Any proposed changes to approved land use would require a study of impacts of the proposed change, including identifying mitigation actions, where applicable. Further study of the compatibility of the new land uses with surrounding land uses and policies would also be required. Implementing the proposed linear parks could impact existing access for flood control inspection and maintenance. Any identified impacts on flood control conveyance or maintenance access may require mitigation.

Green Streets
No land use consistency impacts are expected to occur from implementing the various green streets measures. Before the green streets are implemented, their compatibility with transportation improvement plans would need to be assessed.
**4.8 Land Use**

**Paseos and Promenades**
If implementing these proposed paseos and the paseo promenade would require a change from the approved land uses for the area (Industrial and Public Facilities use), then a study of the impacts of this change in land use would be required, including identifying appropriate mitigation measures, if applicable. Further study of the compatibility of the new land uses with surrounding land uses and policies would also be required.

The proposed promenade should not impact approved land use as long as the promenade is within the channel ROW, which is approved for Open Space land use. If implementing the promenade requires lands outside of the river ROW that are not approved for Open Space land use, then the impacts of the proposed change would have to be analyzed, and appropriate mitigation actions, if applicable, would have to be identified.

**Bikeways and Trails**
The Nonmotorized Transportation Element of the City of Los Angeles General Plan identifies a planned bikeway network within the Los Angeles River ROW, along the entire River Corridor. No significant inconsistent land use impacts are expected by implementing trails and bikeways within the river channel ROW. Implementing the proposed bikeways and trails could impact access for flood control inspection and maintenance. Any identified impacts on flood control maintenance access may require mitigation. Before the City of Los Angeles implements the bikeway network along the River Corridor, it should assess the compatibility of proposed bridge underpasses with transportation improvement plans to ensure compatibility.

**Pedestrian River Crossings**
No land use consistency impacts are expected from implementing the proposed pedestrian river crossing measures.

**Water Quality Enhancement**
No land use consistency impacts are expected if the water quality enhancement measure is within the Los Angeles River ROW, which is already approved for use as Open Space. If implementing the proposed measure requires a change in land use, the impacts of the proposed change would have to be assessed, and mitigation actions, if applicable, would have to be identified. The proposed water quality enhancement measure would overlap with the river channel ROW, which is currently used for flood control conveyance, inspection, and maintenance. Any identified impacts on flood control conveyance or maintenance access may require mitigation.

**Reinvestment Measures**
Proposed changes to density or land use mix from those specified in the applicable community plans would require that they be studied and that mitigation actions, if appropriate, be identified. The proposed mixed use developments would require modifying the approved land uses in the community plans. Studying the impacts of proposed land use changes and identifying mitigation actions would be required. The compatibility with the adjoining Alameda Corridor Specific Plan should be evaluated before the changes are implemented.

**4.8.6.3 Potential Impacts and Mitigation Actions—Alternative CC-B**
Potential land use impacts associated with Alternative CC-B would be greater than for Alternative CC-A because the level and intensity of reinvestment measures would increase. The potential land use impacts of
the revitalization measures included in Alternative CC-B are expected to be the same as those for Alternative CC-A, except where noted below.

**River Channel Modification Measures**
The primary difference is the proposed channel diversion, which would require changing the approved land uses from Industrial and Public Facilities to Open Space.

**Open Space Development Measures**
Land use impacts of proposed paseos are similar to those with Alternative CC-A, except that affected land uses are all Public Facilities (Alternative CC-A paseos impacted existing Public Facilities and Industrial land uses). Land use impacts of proposed paseo promenades are similar to those with Alternative CC-A, except that there are two (as opposed to one) paseo promenade proposed and impacted land uses are Industrial (Alternative CC-A paseo promenades impacted Public Facilities).

**Reinvestment Measures**
Here, there are similar types of impacts as those for Alternative CC-A, but they are greater because of the potential relocation of the DWP receiving station and power substation, the William Mead Housing Project, and the school at East Ann Street.

**4.8.6.4 Evaluation of Impact Levels—Alternatives CC-A and CC-B**
Future implementation of Alternative CC-A would result in high and potentially significant land use impacts if proposed land use is not consistent with existing land uses as approved in the area’s Community Plan. The greater land use impacts would be associated with Reinvestment measures and Open Space development measures (primarily associated with parks, paseos, and promenades, which are proposed on lands currently approved for other Industrial, Public Facilities, and Multifamily Residential uses). Site-specific impact analyses would be required to assess the significance of land use impacts as projects are considered for implementation during the subsequent community planning process to reduce potential impacts to less than significant levels.

Future implementation of Alternative CC-B would generally have high and potentially significant land use impacts and a higher level of impact than with Alternative CC-A. The higher level of potential impact would result from diverting the channel, doubling the paseo promenades, and implementing more intensified reinvestment actions, which could include relocating the DWP transfer station, the William Mead Housing Project, and the school at East Ann Street. Site-specific impact analyses would be required to assess the significance of land use impacts as projects are considered for implementation during the subsequent community planning process to reduce potential impacts to less than significant levels.

While converting the land uses associated with the Open Space development and Reinvestment measures is not consistent with current land use mapping for most of the implementation sites, the proposed uses do beneficially address identified needs in the Community Plan, including the following:

- Acquiring vacant land for publicly owned open space;
- Residential and mixed-use development along commercial corridors;
- Appropriate transitions between commercial (mixed use) and adjoining uses, especially residential;
4.8 Land Use

- Pedestrian-friendly shopping areas by incorporating street trees, benches, convenient parking/access into plans and maintaining retail frontage at ground level;
- An adequate system of bikeways for commuter, school, and recreational use;
- Cleaning up and activating land that could be used for public recreation;
- Economic revitalization and reuse of older industrial properties for industrial uses; and
- Aggregation of smaller, older industrial sites to facilitate revitalization or reuse, where appropriate.

Both alternatives would have a net beneficial impact on land use, based on these identified needs in the Community Plan, if mitigation measures appropriate for reducing or offsetting adverse impacts are implemented.

4.8.7 Downtown Industrial Opportunity Area

4.8.7.1 Introduction
The two alternative configurations of measures considered for the Downtown Industrial Opportunity Area are Alternative DI-A and Alternative DI-B. Each alternative includes measures for river channel modification, open space development, and reinvestment. The two alternatives are summarized below and are described in detail in Chapter 2.

Alternative DI-A

**River Channel Modification Measures**
With Alternative DI-A, the river channel is opened up and terraced back in three locations on the east side to provide for small pocket parks and green street connections back into the community. On the west side, an urban promenade is created at the top of the bank, and the existing trapezoidal channel wall is reconfigured as a vertical wall.

**Open Space Development Measures**
Alternative DI-A includes developing a linear park by realigning the two rail lines on the east side of the river to the two innermost storage tracks along the eastern edge of the river. Grade-separated crossings below the rail lines would also be developed at selected locations to provide access into the park. Additional linear parks would be developed along bank tops on the west and east sides of the river. Three pocket parks are proposed on the east side of the river to provide access across rail lines. Green street improvements are proposed at locations throughout the opportunity area. Two paseos and a paseo promenade are proposed on the east side of the river. Other Open Space development measures proposed for the opportunity area include bikeways and trails, bridge underpasses, pedestrian river crossings, a series of regional and neighborhood gateways, and water quality/habitat enhancements.

**Reinvestment Measures**
Underused properties within the opportunity area would be identified where new live-work units could be developed that reflect the existing character and use mix of the neighborhood. Existing industrial land uses would be protected. The rail line would be shifted to the easternmost rail lines to provide additional parkland adjacent to the river. The rail would be placed on trestles at select locations to improve access to parks.
Alternative DI-B

River Channel Modification Measures
These are the same as those for Alternative DI-A except that the east side of the channel would be terraced to provide water quality treatment and open space between the Santa Ana Freeway and 7th Street.

Open Space Development Measures
These are the same as those for Alternative DI-A except that a larger linear park would be developed between the eastern banks of the river and Mission Road, by realigning and consolidating the two rail lines on the east side with the two through-track on the west side of the river. The three pocket parks with Alternative DI-A are not provided because the east side of the channel would be terraced to provide water quality treatment and open space. Two paseo promenades are proposed as opposed to one with Alternative DI-A. Additional pedestrian underpasses are proposed. Water quality and habitat measures are the same as with Alternative DI-A except that a larger park/open space/habitat would be developed in the space provided by realigning and consolidating the two rail lines on the east side with the two through tracks on the west side of the river.

Reinvestment Measures
Same as for Alternative DI-A, except new mixed-use live-work residential properties would be located within the new open space with street frontage along Mission Road, the rail lines along the western edge of river would be consolidated, and the existing inefficient industrial uses (in terms of jobs-per-square-foot) in the area bounded by 7th Street, the Santa Monica Freeway, and the river would be transformed to provide a greater density of industrial jobs.

4.8.7.2 Potential Impacts and Mitigation Actions—Alternative DI-A

River Channel Modification Measures
The Los Angeles River within this opportunity area flows through the Central City North Community Plan Area and just to the west of the Boyle Heights Community Plan Area. As the Central City North Community Plan already has the river ROW zoned for Open Space, no change to the General Plan would be required for the proposed channel modifications unless the proposed changes extend beyond the ROW into lands zoned for other uses. If additional lands are required outside of the Los Angeles River ROW, the adjoining lands on the east bank are currently approved for Industrial land use throughout the site. Adjoining lands on the west bank where the urban promenade is proposed are approved primarily for Industrial use with some Public Facilities land use at the upper end of the opportunity area (US Highway 101).

Any proposed changes to existing approved land use would require a study of impacts of the proposed change, including identifying mitigation actions, where applicable.

Channel modifications within the Los Angeles River ROW would require coordination with, and approval from, the flood control regulatory agencies, which are the Corps and Los Angeles County. River terracing could impact access for flood control inspection and maintenance.
Open Space Development Measures

Linear Parks
The lands required for the proposed upper linear park along the east side of the river are approved for Industrial Use. Implementing the park would require that the land be approved for Open Space use. Any proposed changes to existing approved land use would require that the impacts of the proposed change be studied and that mitigation actions, where applicable, be identified. The proposed switch in land use from an Industrial rail yard to a public park would need to be further studied before the change to evaluate the compatibility with plans of Union Pacific Railroad.

If the proposed bank top linear parks require converting approved land uses to new land use categories, then the compatibility of the new land uses with surrounding land uses and policies would have to be assessed. Implementing the proposed bank top linear parks could impact access for flood control inspection and maintenance. Any identified impacts on flood control conveyance or maintenance access may require mitigation.

Pocket Parks
Developing the proposed pocket parks is not consistent with the approved land uses in the Boyle Heights Community Plan. Current approved land use in the locations of these pocket parks is Industrial. Any proposed changes to approved land use would have to be studied, and mitigation actions, where applicable, would have to be identified.

Green Streets
No land use consistency impacts are expected to occur from implementing the various green streets measures. Before they are implemented, the compatibility of the proposed green streets with transportation improvement plans needs to be assessed.

Paseos and Promenades
If the proposed paseos and paseo promenade were to require a change from the approved Industrial land use for the area, then the impacts of this change in land use would have to be studied, and appropriate mitigation measures, if applicable, would have to be identified. Also, the compatibility of the new land uses with surrounding land uses and policies would have to be evaluated.

The proposed promenade should not impact approved land use as long as the promenades are located within the channel ROW, which is currently approved for Open Space land use. If implementation of the promenade requires lands outside of the river ROW that are not approved for Open Space land use, then the impacts associated with the proposed change would have to be analyzed, and appropriate mitigation actions, if applicable, would have to be identified. Also, the compatibility of the new land uses with surrounding land uses and policies would have to be studied.

Bikeways and Trails
The Nonmotorized Transportation Element of the City of Los Angeles General Plan identifies a planned bikeway network within the Los Angeles River ROW, along the entire River Corridor. No significant land use impacts are expected by implementing trails and bikeways within the river channel ROW that are consistent with the General Plans of the associated communities. Implementing the proposed bikeways and trails could
impact access for flood control inspection and maintenance. Any identified impacts on flood control maintenance access may require mitigation. Before the City of Los Angeles implements the bikeway network along the River Corridor, it should assess the compatibility of proposed bridge underpasses with transportation improvement plans to ensure compatibility.

**Pedestrian River Crossings**
No land use consistency impacts are expected to occur with implementation of the proposed pedestrian river crossing measures. Before they were implemented, their compatibility with transportation improvement plans would have to be assessed.

**Water Quality Enhancements**
The lands required for the proposed linear park along the east side of the river are zoned for Industrial Use. Implementing the park would require that the land be approved for Open Space use. Any proposed changes to existing approved land use would require that impacts of the proposed change be studied and that mitigation actions, where applicable, be identified. The proposed switch in land use from an industrial rail yard to a public park would need to be further studied to evaluate the compatibility with plans of Union Pacific Railroad.

**Reinvestment Measures**
Proposed changes to land use mix from those specified in the applicable community plans would require that the impacts of proposed changes be studied and that mitigation actions, if appropriate, be identified. The proposed mixed-use developments would require that the approved land uses in the community plans be modified. The impacts of proposed land use changes would have to be studied, and mitigation actions would have to be identified. The proposed switch in land use from an industrial rail yard to a public park would need to be further studied to evaluate the compatibility with plans of Union Pacific Railroad.

**4.8.7.3 Potential Impacts and Mitigation Actions—Alternative DI-B**
Potential land use impacts associated with Alternative DI-B would be greater than for Alternative DI-A because the level and intensity of reinvestment measures would increase. The potential land use impacts of the revitalization measures included in Alternative DI-B are expected to be the same as those for Alternative DI-A, except where noted below.

**River Channel Modification Measures**
These are similar to the land use impacts for Alternative DI-A, with the main difference being that instead of terracing at three relatively small areas, the terracing is implemented from the Santa Ana Freeway to 7th Street, a much larger potential impact area.

**Open Space Development Measures**

**Parks**
The types of land use impacts from the proposed expanded east bank linear park are similar to those of Alternative DI-A (conversion of Industrial rail yard to public park Open Space) but to a larger area of land and affecting all the Union Pacific Railroad lines on the east bank and also the industrial development between Meyers Street and Mission Road. The proposed switch in land use from an industrial rail yard to a
public park would need to be further studied before it is implemented to evaluate the compatibility with plans of Union Pacific Railroad and those of the proposed relocation site (BNSF Railroad and Metrolink).

**Paseo and Promenades**

Alternative DI-B includes two proposed paseo promenades, as opposed to just one with Alternative DI-A.

**Reinvestment Measures**

The type of land use impacts are similar to those of Alternative DI-A (conversion of industrial rail yard to public park Open Space and changes in land use mix) but would involve a larger land area and would include all the Union Pacific Railroad lines on the east bank and the industrial development between Meyers Street and Mission Road. In addition, changes to current density are also proposed for some Industrial lands.

**4.8.7.4 Evaluation of Impact Levels—Alternatives DI-A and DI-B**

Future implementation of Alternative DI-A would result in high and potentially significant land use impacts if proposed land use is not consistent with existing land uses as approved in the area’s Community Plan. The greater land use impacts would be associated with the proposed Reinvestment measures and the proposed upper east linear park which would require reconfiguration of Union Pacific Rail Yard and conversion of lands currently approved for Industrial use to Open Space. Other Open Space development measures that impact current land use include the proposed paseos and paseo promenades, which are proposed on lands currently approved for Industrial use. Site-specific impact analyses would be required to assess the significance of land use impacts as projects are considered for implementation during the subsequent community planning process to reduce potential impacts to less than significant levels.

Future implementation of Alternative DI-B would generally have high and potentially significant land use impacts (and at a higher level of impacts than associated with Alternative DI-A). The increase in expected land use impact results from the proposed expansion of the east bank linear park that would require total relocation of the Union Pacific rail lines for consolidation with BNSF and Metrolink rail lines on the west bank. The larger east bank linear park would also require more lands currently approved for Industrial use to be converted for use as Open Space. Site-specific impact analyses would be required to assess the significance of land use impacts as projects are considered for implementation during the subsequent community planning process to reduce potential impacts to less than significant levels.

While conversion of the land uses associated with the Open Space Development and Reinvestment measures is not consistent with current land use mapping for most of the implementation sites, the proposed uses do address identified needs in the applicable Community Plans, as follows:

- Acquisition, expansion, and improvement of needed local parks;
- Acquisition of vacant land for publicly owned open space;
- Residential and mixed-use development along commercial corridors;
- Appropriate transitions between commercial (mixed-use) and adjoining uses, especially residential;
- Pedestrian-friendly shopping areas, with street trees, benches, convenient parking/access, and retail frontage at ground level;
- An adequate system of bikeways for commuter, school, and recreational use;
• Cleaning up and activating land that could be used for public recreation;
• Economic revitalization and reuse of older industrial properties for industrial uses with assistance from city, state, and federal programs; and
• Aggregation of smaller, older industrial sites to facilitate revitalization or reuse, where appropriate.

Both alternatives would have a net beneficial impact on land use, based on these identified needs in the Community Plan if mitigation measures appropriate for reducing or offsetting adverse impacts were implemented.

4.8.8 No Project Alternative
Under the No Project Alternative, LARRMP revitalization measures within the 32-mile River Corridor and the five opportunity areas would not occur. Related river revitalization initiatives would provide some of the desired benefits. Land use would remain consistent with the Land Use Element of the General Plan and other applicable planning documents serving the River Corridor and vicinity.
4.9 Recreation

4.9.1 Introduction
This section is an evaluation of the potential direct and indirect recreation impacts of the revitalization measures and the particular configuration of measures selected for the five opportunity areas. Mitigation measures that could be applied to reduce adverse recreation impacts and the No Project Alternative are discussed.

4.9.1.1 Regulatory Framework
Public recreation resources in the River Corridor are provided by federal, state, and local government agencies, whose guidelines and regulations are discussed below.

Federal

Federal Lands (the Corps, Sepulveda Basin Recreation Area)
The 2,097-acre Sepulveda Basin Recreation Area is a federally owned flood control area that includes the largest recreation area in the San Fernando Valley. The federal government leases 1,527 acres to the City of Los Angeles for recreational facilities. Recreation development policies are provided in the Corps of Engineers’ Sepulveda Basin Recreation Area Master Plan.

State

California State Parks
Two state parks are under development within the River Corridor, the Rio De Los Angeles State Park in the Taylor Yard Opportunity Area and the Los Angeles State Historic Park in the Chinatown-Cornfields Opportunity Area. General plans are in development for these two parks that will provide guidelines for land use and recreational development.

Quimby Act
The Quimby Act allows California municipalities to require that new residential subdivisions set aside parklands or to charge fees to developers in lieu of setting aside parklands. The City of Los Angeles has enacted ordinances that implement the Quimby Act, requiring that land be set aside for parks and establish fees for other types of permits and approvals.

Local

City of Los Angeles Department of Recreation and Parks
Within the City of Los Angeles, the Department of Recreation and Parks operates over 16,000 acres of parkland, made up of some 150 recreation centers and over 350 park sites citywide.

City of Glendale Department of Parks, Recreation and Community Services
Parks in Glendale are operated and maintained by the City of Glendale Department of Parks, Recreation & Community Services.
City of Burbank, Recreation & Community Services Department

Parks in Burbank are operated and maintained by the City of Burbank Park, Recreation & Community Services Department.

Griffith Park Master Plan

In 1978, the City of Los Angeles prepared the Griffith Park Master Plan, which is currently under revision.

4.9.1.2 Significance Criteria

The Draft Los Angeles CEQA Thresholds Guide (City of Los Angeles 1998c) identifies measures that would have a significant impact on recreation as those that:

- Would result in a demand for recreation and park services that exceeds the available resources;
- Would reduce access to a recreational facility; and
- Would otherwise limit or prevent the use of a recreational facility.

4.9.2 Potential Impacts Associated with LARRMP River Channel Modification and Open Space Development Measures in the River Corridor

4.9.2.1 River Channel Modification Measures

The proposed river channel modification measures presented in Chapter 2 include some mix of modifications to both channel geometry and to the level of vegetation within the channel. In some cases, modification measures require expanding the river ROW, diverting channels, and reconfiguring tributary confluences.

Future implementation of river channel modifications would provide indirect recreational benefits by improving aesthetic and environmental conditions in the river channel near proposed park developments, thereby enhancing the recreation experience. In some locations, channel reconfiguration would also provide the underlying real estate required to develop trails, paths, promenades, and river access.

If considered for implementation without any associated park development proposals, the channel modification measures could result in additional recreational demand at existing recreational parks and facilities within the River Corridor and vicinity. Further study of the effects of the measure on demand for recreation and park services in the River Corridor, including the assessment of capacity of available resources, is recommended prior to implementation to determine potential levels of impact on existing recreation resources and appropriate mitigation. This assessment should also consider any potential impacts on access or use of existing recreational facilities in the River Corridor.

4.9.2.2 Open Space Development Measures

Chapter 2 describes the Open Space Development Measures evaluated in this PEIR/PEIS. The categories of Open Space Development Measures include the following:

- Parks: LARRMP revitalization measures in this category include riverfront parks, linear parks, pocket parks, and recreation fields. The various park development measures would have direct beneficial recreational impacts by providing new recreation resources and capacity. Future implementation of
these measures is not expected to reduce access to or limit the use of recreational resources in the River Corridor and vicinity.

- **Green Streets:** Future implementation of the green streets measures is not expected to result in new recreational demand for existing parks and recreation services. The measures would also not result in reduced access to, or limitations to the use of, existing recreational resources in the River Corridor and vicinity.

- **Paseos and Promenades:** Future implementation of paseos, paseo promenades, or promenades in the River Corridor could result in additional recreational demand at existing recreational parks and facilities within the River Corridor and vicinity. Further study of the effects of the measures on demand for recreation and park services in the River Corridor, including an assessment of the capacity of available resources, is recommended prior to implementation. These measures are not expected to result in any adverse recreational impacts by limiting access to, or use of, existing recreational facilities in the River Corridor.

- **Trails and Bikeways:** Future implementation of trails and bikeway measures in the River Corridor would result in direct beneficial recreational impacts by providing new recreation resources and capacity. Future implementation of these measures is not expected to result in reduced access to or limitations to the use of recreational resources in the River Corridor.

- **Pedestrian River Crossings:** Future implementation of pedestrian river crossing measures in the River Corridor could increase demand for existing recreational resources by providing additional access to parks and facilities. Further study of the effects of the measures on demand for recreation and park services in the River Corridor, including assessing the capacity of available resources, is recommended prior to implementation. These measures are not expected to result in any adverse recreational impacts by limiting access to, or use of, existing recreational facilities in the River Corridor.

- **River Loops:** Future implementation of river loop measures in the River Corridor could result in beneficial recreational impacts by providing riverfront corridors available for recreational uses, like walking and biking. These measures are not expected to result in any adverse recreational impacts by limiting access to, or use of, recreational facilities in the River Corridor.

- **Gateways:** Future implementation of gateway measures in the River Corridor would not impact existing recreational resources.

- **Water Quality and Habitat:** Future implementation of gateway measures in the River Corridor would not impact existing recreational resources.

### 4.9.2.3 Potential Impact Levels

Implementation of future LARRMP river channel and open space modification projects in the River Corridor could result in moderate to high impacts on recreation demand at existing parks and recreation facilities in their vicinity. Site-specific analyses will be required to assess the significance of any impacts on demand for recreation and park services, evaluate the capacity of available resources, identify appropriate mitigation to reduce impacts to less than significant levels, and identify any other effects related to access to or use of recreational facilities in the River Corridor. The revitalization measures would also result in moderate to high beneficial recreation impacts as a result of providing additional recreational resources, capacity, and
opportunities throughout the River Corridor as generally identified as a need in Community Plans throughout the corridor.

4.9.2.4 Mitigation Actions

Site-specific studies are required to assess the types and levels of any adverse recreational impacts that could result from LARRMP revitalization projects prior to their future implementation. These studies should address potential direct, indirect, and cumulative impacts. The findings of these studies are required prior to identifying appropriate mitigation actions for these future projects. Appropriate mitigation actions would vary, depending on the type of resource impacted and the extent of the impact. Generally mitigation measures will be identified to accomplish the following:

- Avoid recreation resource impacts altogether by not taking a certain action or parts of an action;
- Minimize recreation resource impacts by limiting the degree or magnitude of the action and its implementation;
- Rectify the recreation resource impact by repairing, rehabilitating, or restoring the impacted land use (for example, providing on-site recreational amenities where impacts occur);
- Reduce or eliminate the land use impact over time by preservation and maintenance operations;
- Compensate for the land use impact by replacing or providing substitute resources;
- Provide direct support to the Department of Recreation and Parks, such as land, equipment, and funding;
- Review all future bikeway proposals for the River Corridor for consistency with guidelines specified for the development of Class I Bikeways;
- Review all future landscaping proposals for the River Corridor for consistency with the Los Angeles River Master Plan Landscaping Guidelines and Plant Palettes;
- Review all future signage proposals for the River Corridor for consistency with the Los Angeles River Master Plan Sign guidelines; and
- Review all future proposals for the River Corridor that involve enhancing access for disabled persons for consistency with guidelines developed through the Americans with Disabilities Act.

4.9.3 Canoga Park Opportunity Area

4.9.3.1 Introduction

The two alternative configurations of LARRMP revitalization measures considered for the Canoga Park Opportunity Area are Alternative CP-A and Alternative CP-B. Each alternative includes a configuration of River Channel Modification Measures, Open Space Development Measures, and Reinvestment Measures. The two alternatives are summarized below and described in detail in Chapter 2.
Alternative CP-A

**River Channel Modification Measures**
Alternative CP-A involves proposed river channel terracing on the north bank, including a 15-foot-wide walkway and water quality treatment terraces within the river ROW. On the south side of the river, additional river ROW acquisition is proposed to create treatment terraces and a riverfront park. The channel bottom would be modified to develop intermittent habitat areas throughout the opportunity area.

**Open Space Development Measures**
Alternative CP-A includes a proposed riverfront park on the south side of the river, a linear park on the north side of the river, and a pocket park near the Los Angeles River confluence. Regional greenway connections, arterial green streets, and local green streets are proposed in locations throughout the opportunity area. One paseo on the north side or the river and promenades running along the river on both banks are proposed. The alternative also includes proposed bikeways and trails, pedestrian river crossings, regional and neighborhood gateways, and water quality enhancement measures.

**Reinvestment Measures**
Land acquisition for public use would be encouraged for parcels that have near-term potential to be developed as open space measures. Reinvestment would rely on responses of private property owners to revitalization improvements and opportunities.

Alternative CP-B

**River Channel Modification Measures**
Same as for Alternative CP-A, except the terrace on north and south sides between Canoga and Variel is extended by 800 feet, and Arroyo Calabasas is daylighted to provide an urban water feature within the new riverfront park.

**Open Space Development Measures**
Same as for Alternative CP-A except the riverfront park is extended to the southwest, three additional paseos are included, a paseo promenade is included, and an additional neighborhood gateway is added.

**Reinvestment Measures**
The level and intensity of reinvestment measures would be substantially increased over Alternative CP-A, including the following:

- Rebuilding the river within this opportunity area from the confluence of Bell Creek and Arroyo Calabasas to demonstrate the potential of collaborative measures;
- Spurring collaborative private investment by encouraging civic investment in river revitalization;
- Increasing density and influencing land use mix based on LARRMP revitalization goals and objectives;
- Developing a mixed-use village within the Canoga Park Opportunity Area, with a major retail and entertainment center that is connected to the Orange Line and Westfield Center;
4.9 Recreation

- Developing open space greenway connections and internal greenways to support the mixed-use village concept; and
- Protecting single-family homes in the area.

4.9.3.2 Potential Impacts and Mitigation Actions—Alternative CP-A
LARRMP revitalization measures that could result in recreational impacts in this opportunity area include river channel modification measures, several open space development measures (parks, paseos and promenades, and trails and bikeways), and reinvestment measures. Potential impacts and mitigation actions are summarized in the following paragraphs.

River Channel Modification Measures
Future implementation of the proposed river channel modifications within this opportunity area would provide indirect recreational benefits by improving aesthetic and environmental conditions in the river channel. This would enhance the recreation experience at the adjoining proposed LARRMP parks in the opportunity area. The proposed channel reconfiguration would also provide the underlying real estate required to develop the proposed 15-foot walkway on the north bank of the reconfigured channel (within existing Los Angeles River ROW). Implementation of the river channel measures could result in potential adverse impacts associated with increased recreation demand at existing parks and facilities in the area (John Quimby Park). Further study of the effects of the measures on demand for recreation and park services at John Quimby Park, including assessment of capacity of available resources and identification of mitigation measures is recommended before they are implemented.

Open Space Development Measures

Parks
The proposed riverfront park, two linear parks, and one pocket park in this opportunity area would provide direct beneficial recreational impacts by providing new recreation resources and capacity in the Community Area. Future implementation of these measures is not expected to reduce access to or limit the use of recreational resources in the River Corridor and vicinity. Site-specific study of the significance of these potential beneficial recreational impacts is recommended before they are implemented to help in comparing them to any adverse impacts associated with land use conversion for park development (for example, housing and employment displacement or loss of industrial or public facilities lands). Implementation of the parks could result in potential adverse impacts associated with increased recreation demand at existing parks and facilities in the area (John Quimby Park). Further study of the effects of the measures on demand for recreation and park services at John Quimby Park, including assessment of capacity of available resources and identification of appropriate mitigation measures is recommended before they are implemented.

Paseos and Promenades
Future implementation of the proposed paseo on the north side of the river and the two promenades running along each bank could result in additional recreational demand at existing recreational parks and facilities within the measure’s ROI as a result of attracting more recreational visitors to the area. Sites within the River Corridor and vicinity include the Canoga Park Senior Citizens Center and John Quimby Park. No impacts are expected for the Senior Citizen Center. It is possible that implementing the measures could result in increased recreational demand at John Quimby Park. Further study of the effects of the measures on demand for recreation and park services at John Quimby Park, including assessment of capacity of available resources, is
recommended before they are implemented. These measures are not expected to result in any adverse recreational impacts by limiting access to, or use of, existing recreational facilities in the River Corridor. Site-specific study of the significance of the potential beneficial recreational impacts of these measures is recommended before they are implemented.

**Bikeways and Trails**
Future implementation of trails and bikeway measures in the River Corridor would result in direct beneficial recreational impacts by providing new recreation resources and capacity. Future implementation of these measures is not expected to reduce access to or limit the use of recreational resources in the River Corridor and vicinity. Site-specific study of the significance of the potential beneficial recreational impacts of these measures is recommended before they are implemented to assist with comparison to any adverse impacts, as described under Paseos and Promenades above. Implementation of the proposed bikeways and trails could result in potential adverse impacts associated with increased recreation demand at existing parks and facilities in the area (for example, John Quimby Park). Further study of the effects of the measures on demand for recreation and park services at John Quimby Park, including assessment of available resource capacity and identification of appropriate mitigation measures is recommended before they are implemented.

**Reinvestment Measures**
For this alternative, reinvestment measures are associated only with acquiring the lands necessary for implementing the proposed open space development measures. The recreation impacts of proposed open space development measures are addressed in the preceding paragraphs.

4.9.3.3 Potential Impacts and Mitigation Actions—Alternative CP-B
The potential recreation impacts of the revitalization measures included in Alternative CP-B are expected to generally be of the same magnitude as for Alternative CP-A, except where noted below.

**River Channel Modification Measures**
Greater beneficial recreation impacts are expected than with Alternative CP-A because of the added feature of daylighting Arroyo Calabasas, which runs under the north parking lot of Topanga Plaza Shopping Center, and converting the area into the proposed riverfront park.

**Open Space Development Measures**
Potential beneficial recreation impacts of the proposed riverfront park would be the same as those for Alternative CP-A, except that expanding the park westward to Arroyo Calabasas would expand the proposed recreational resource and its capacity to support additional recreational use.

**Reinvestment Measures**
Proposed changes to density and land use mix and development of the proposed mixed use village would require further study to assess the potential for increased demand on recreational resources in the area, including identifying any mitigation actions. Development of the proposed internal greenways could result in beneficial recreation impacts by increasing recreational resources and capacity in the area.

4.9.3.4 Evaluation of Impact Levels—Alternatives CP-A and CP-B
Implementation of CP-A could result in moderate to high impacts on recreation demand at existing parks and recreation facilities in their vicinity. Site-specific analyses will be required to assess the significance of any
impacts on demand for recreation and park services, evaluate the capacity of available resources, identify appropriate mitigation to reduce impacts to less than significant levels, and identify any other effects related to access to or use of recreational facilities in the opportunity area. The alternative would also result in high beneficial recreational impacts for the surrounding community by providing increased recreational resources and opportunities.

Implementation of Alternative CP-B would result in a higher level of recreational impacts than with Alternative CP-A as a result of the larger riverfront park footprint and the additional paseos and paseo promenade. Future study would be required to assess the potential for additional adverse impacts associated with increased recreational demand as a result of the intensified reinvestment measures of Alternative CP-B.

Potential adverse impacts from increased demand at existing parks and facilities could be offset to some degree by the proposed increases in recreational resources and capacity within the opportunity area through implementing LARRMP Open Space Development measures. Both alternatives are expected to result in a net beneficial impact on recreation resources and would address recreation and open space needs identified in the area’s community plan. Site-specific studies are required to assess the significance of any adverse recreational impacts that could result from LARRMP revitalization measures prior to their future implementation. These studies should address potential direct, indirect, and cumulative impacts.

4.9.4 River Glen Opportunity Area

4.9.4.1 Introduction
The two alternative configurations of measures considered for the River Glen Opportunity Area are Alternative RG-A and Alternative RG-B. Each alternative includes measures for river channel modification, open space development, and reinvestment. The two alternatives are summarized below and are described in detail in Chapter 2.

**Alternative RG-A**

*River Channel Modification Measures*
Alternative RG-A involves modifying the Verdugo Wash confluence to provide a water quality treatment wetland, terracing the river channel east bank, and modifying the channel bottom to develop intermittent habitat areas.

*Open Space Development Measures*
Alternative RG-A includes developing a continuous linear terraced park on the east bank of the river, green streets at locations throughout the opportunity area, two paseos on the east side of the river, and a promenade along the east bank of the river throughout the opportunity area. Additional open space measures include developing bikeways and trails, pedestrian river crossings, regional and neighborhood gateways, and water quality/habitat features.

*Reinvestment Measures*
Currently underserved by its roadway network, this light industrial area would be the focus of an extensive roadway improvement plan, with the intent to create a contiguous roadway network with expanded ROW to improve functionality and create a continuous north-south connection within the area that does not currently
exist. This revitalization alternative also includes reconfiguring the Colorado Street freeway exit to remove the jug-handle at Edenhurst Avenue and create an at-grade intersection providing north and south movement, where only southern access currently exists.

**Alternative RG-B**

**River Channel Modification Measures**
Same as for Alternative RG-A, except Verdugo Wash is realigned to enter the Los Angeles River farther downstream, creating a small island of habitat, and additional ROW is acquired along the east bank and the river channel is terraced to provide a series of street end parks and water quality treatment terraces.

**Open Space Development Measures**
These are the same as those for Alternative RG-A, except for the following:

- The continuous linear terraced park is developed with greater emphasis on water quality enhancement measures;
- The proposed paseos are longer;
- There is an additional regional gateway and neighborhood gateway; and
- The water quality/habitat features are expanded by creating an island at the Verdugo Wash confluence and by developing a riverine habitat area east of the Golden State Freeway to bring the river into Griffith Park to the south of the Griffith Park Zoo.

**Reinvestment Measures**
These are the same as those for Alternative RG-A, except that grade separated crossings are developed at W. Milford and W. Broadway at San Fernando Road to provide safer vehicular and pedestrian access to the industrial area and the river, and existing land uses are redeveloped to capture economic development opportunities created by ongoing river revitalization.

**4.9.4.2 Potential Impacts and Mitigation Actions—Alternative RG-A**
LARRMP revitalization measures that could result in recreational impacts in this opportunity area include river channel modification measures and open space development measures (parks, paseo and promenades, and trails and bikeways). Potential impacts and mitigation actions are summarized in the following paragraphs. No recreation impacts associated with the proposed reinvestment measures are expected with either alternative.

**River Channel Modification Measures**
Future expansion of the confluence function would provide indirect recreational benefits by improving aesthetic and environmental conditions in the river channel, which would enhance the recreation experience at the adjoining proposed LARRMP parks in the opportunity area. This would provide the proposed regional water quality treatment wetland, terracing of the east bank of the Los Angeles River, and modification of the channel bottom to provide intermittent habitat areas. Implementation of the river channel measures could result in potential adverse impacts associated with increased recreation demand at existing parks and facilities in the area (Griffith Park and Recreation Center, Pacific Park, Glendale Central Park, Milford Mini Park, and Fremont Park). Further study of the effects of the measures on demand for recreation and park services at
existing parks, including assessment of available resource capacity and identification of mitigation measures, is recommended before they are implemented.

**Open Space Development Measures**

**Linear Park**

Development of the linear park would provide direct beneficial recreational impacts by providing new recreation resources and capacity in the opportunity area. Future implementation of the park is not expected to result in reduced access to, or limitations to the use of, existing recreational resources in the River Corridor and vicinity. The significance of these potential beneficial recreational impacts should be studied before they are implemented to assist with comparison to any adverse impacts from land use conversion for park development (for example, housing and employment displacement or loss of industrial or public facilities lands). Implementation of the parks could result in potential adverse impacts associated with increased recreation demand at existing parks and facilities in the area (Griffith Park and Recreation Center, Pacific Park, Glendale Central Park, Milford Mini Park, and Fremont Park). Further study of the effects of the measures on demand for recreation and park services at existing parks, including assessment of capacity of available resources and identification of appropriate mitigation measures is recommended before they are implemented.

**Paseos and Promenades**

Future implementation of the proposed paseo and promenade on the east side of the river could result in additional recreational demand at existing recreational parks and facilities within the River Corridor and vicinity as a result of attracting more recreational visitors to the area. Sites within the demand area include Griffith Park and Recreation Center in the City of Los Angeles (including Wilson and Harding Golf Courses) and Pacific Park, Glendale Central Park, Milford Mini Park, and Fremont Park in the City of Glendale. The effects of the paseo and promenade measures on the demand for recreation and park services at the existing area parks, including an assessment of the capacity of available resources, should be studied before the measures are implemented. These measures are not expected to result in any adverse recreational impacts by limiting access to, or use of, existing recreational facilities in the River Corridor.

**Bikeways and Trails**

Future implementation of trails and bikeway measures in the River Corridor would result in direct beneficial recreational impacts by providing new recreation resources and capacity. Future implementation of these measures would not result in reduced access to, or limitations to the use of, recreational resources in the River Corridor and vicinity. The significance of the potential beneficial recreational impacts of these measures should be studied before they are implemented to assist with comparison to any adverse impacts, as described above for paseos and promenades. Implementation of the proposed bikeways and trails could result in potential adverse impacts associated with increased recreation demand at existing parks and facilities in the area (Griffith Park and Recreation Center, Pacific Park, Glendale Central Park, Milford Mini Park, and Fremont Park). Further study of the effects of the measures on demand for recreation and park services at existing parks, including assessment of available resource capacity and identification of appropriate mitigation measures is recommended before they are implemented.
4.9.4.3 Potential Impacts and Mitigation Actions—Alternative RG-B
The potential recreation impacts of the revitalization measures included in Alternative RG-B are the same as those for Alternative RG-A, except where noted below.

River Channel Modification Measures
The land acquisition for additional river terracing and water quality treatment terraces would result in a higher level of indirect recreational benefits than with Alternative RG-A by providing additional improvements to aesthetic and environmental conditions in the river channel, which would enhance the recreation experience at the adjoining proposed LARRMP parks in the opportunity area.

Open Space Development Measures
The proposed street-end parks would provide direct beneficial recreational impacts by providing further new recreation resources and capacity in the community area.

4.9.4.4 Evaluation of Impact Levels—Alternatives RG-A and RG-B
Implementation of Alternative RG-A could result in moderate to high impacts on recreation demand at existing parks and recreation facilities in their vicinity. Site-specific analyses will be required to assess the significance of any impacts on demand for recreation and park services, evaluate the capacity of available resources, identify appropriate mitigation to reduce impacts to less than significant levels, and identify any other effects related to access to or use of recreational facilities in the opportunity area. Future implementation of Alternative RG-A is also expected to result in moderate to high beneficial recreation impacts. Future implementation of Alternative RG-B would have higher levels of recreation impacts than Alternative RG-A because of added land acquisition for converting to open space and the addition of the street-end parks.

Potential adverse impacts associated with increased demand at existing parks and facilities could be offset to some degree by the proposed increases in recreational resources and capacity within the opportunity area through implementation of LARRMP open space development measures. Both alternatives for this opportunity area are expected to result in net beneficial impacts on recreation resources and address recreation and open space needs identified in the area’s general and community plan elements. Site-specific studies are required to assess the significance of any adverse recreational impacts that could result from LARRMP revitalization measures prior to their future implementation.

4.9.5 Taylor Yard Opportunity Area

4.9.5.1 Introduction
There is one configuration of measures proposed in the LARRMP for the Taylor Yard Opportunity Area. The proposed configuration includes measures for river channel modification, open space development, and reinvestment. The alternative is summarized below and is described in detail in Chapter 2.

River Channel Modification Measures
The project involves terracing the east bank of the river channel for approximately one mile within the opportunity area to provide for water quality treatment terraces. Additionally, the channel bottom is modified to develop intermittent habitat areas.
Open Space Development Measures
The project includes development of a regional park on the parcel between the river and the Metrolink/Rail Corridor to the southwest of the new state park, a continuous linear park along the western edge of the river between Fletcher Drive and the Pasadena Freeway, seven pocket parks on the west side of the river, green street improvements at locations throughout the opportunity area, ten paseos (four on the east side of the river and six on the west side), and a promenade along the east bank, from Glendale Highway to Granada Street. Additional open space development measures in this alternative include bikeways and trails, pedestrian river crossings, a series of regional and neighborhood gateways, and water quality/habitat enhancement measures.

Reinvestment Measures
Other Taylor Yard planning efforts are expected to establish land use on the east bank of the river. Emphasis is placed on green connections between the east and west banks of the river and to parks and neighborhoods. Further, market pressure is expected to gradually cause replacement of west bank small industry with mixed-use development, in keeping with the river revitalization theme.

4.9.5.2 Potential Impacts and Mitigation Actions
LARRMP revitalization measures that could result in recreational impacts in this opportunity area include river channel modification measures and open space development measures (parks, paseos, promenades, and trails and bikeways). Potential impacts and mitigation actions are summarized in the following paragraphs.

River Channel Modification Measures
Terracing the east bank of the Los Angeles River and modifying the channel bottom to provide intermittent habitat areas would provide indirect recreational benefits by improving aesthetic and environmental conditions in the river channel that would enhance the recreation experience at the adjoining proposed LARRMP parks in the opportunity area. Implementation of the river channel measures could result in potential adverse impacts associated with increased recreation demand at existing parks and facilities in the area (Rio De Los Angeles State Park, Cypress Park and Recreation Center, Elyria Canyon Park, Elysian Park, Elysian Valley Recreation Center, Glassell Park and Recreation Center, Glenhurst Park, and the Los Angeles Youth Athletic Club). Further study of the effects of the measures on demand for recreation and park services at existing parks, including assessment of available resource capacity and identification of mitigation measures, is recommended before they are implemented.

Open Space Development Measures

Parks
The proposed riverfront, linear, and pocket parks would provide direct beneficial recreational impacts by providing new recreation resources and capacity in the opportunity area. Future implementation of the park is not expected to result in reduced access to, or limitations to the use of, existing recreational resources in the River Corridor and vicinity. The significance of these potential beneficial recreational impacts should be studied before they are implemented to assist with comparison to any adverse impacts from land use conversion for park development (for example, housing and employment displacement or loss of industrial or public facilities lands). Implementation of the parks could result in potential adverse impacts associated with increased recreation demand at existing parks and facilities in the area (Rio De Los Angeles State Park, Cypress Park and Recreation Center, Elyria Canyon Park, Elysian Park, Elysian Valley Recreation Center,
Glassell Park and Recreation Center, Glenhurst Park, and the Los Angeles Youth Athletic Club). Further study of the effects of the measures on demand for recreation and park services at existing parks, including assessment of available resource capacity and identification of appropriate mitigation measures is recommended before they are implemented.

**Paseos and Promenades**

Future implementation of the proposed paseos and promenade could increase recreational demand at existing recreational parks and facilities within the River Corridor and vicinity as a result of more recreational visitors being attracted to the area. Sites within the demand area include the Rio De Los Angeles State Park, Cypress Park and Recreation Center, Elyria Canyon Park, Elysian Park, Elysian Valley Recreation Center, Glassell Park and Recreation Center, Glenhurst Park, and the Los Angeles Youth Athletic Club. The effects of the paseo and promenade measures on demand for recreation and park services at the area parks, including assessment of capacity of available resources, should be studied further. These measures are not expected to result in any adverse recreational impacts by limiting access to, or use of, existing recreational facilities in the River Corridor and vicinity.

**Bikeways and Trails**

Future implementation of trails and bikeway measures in the River Corridor would result in direct beneficial recreational impacts by providing new recreation resources and capacity. Future implementation of these measures is not expected to reduce access to or limit the use of existing recreational resources in the River Corridor and vicinity. The significance of the potential beneficial recreational impacts of these measures should be studied further before the measures are implemented to assist with comparison to any adverse impacts as described above for paseos and promenades. Implementation of the proposed bikeways and trails could result in potential adverse impacts associated with increased recreation demand at existing parks and facilities in the area (Rio De Los Angeles State Park, Cypress Park and Recreation Center, Elyria Canyon Park, Elysian Park, Elysian Valley Recreation Center, Glassell Park and Recreation Center, Glenhurst Park, and the Los Angeles Youth Athletic Club). Further study of the effects of the measures on demand for recreation and park services at existing parks, including assessment of available resource capacity and identification of appropriate mitigation measures is recommended before they are implemented.

### 4.9.5.3 Evaluation of Impact Level

Implementation of future LARRMP river channel and open space modification projects in the Taylor Yard Opportunity Area could result in moderate to high impacts on recreation demand at existing parks and recreation facilities in their vicinity. Site-specific analyses will be required to assess the significance of any impacts on demand for recreation and park services, evaluate the capacity of available resources, identify appropriate mitigation to reduce impacts to less than significant levels, and identify any other effects related to access to or use of recreational facilities in the opportunity area. Future implementation of the proposed configuration of revitalization measures would also result in moderate to high beneficial recreation impacts.

The paseos and promenades measures could result in moderate to high adverse recreation impacts on existing recreation resources by increasing recreation demand in the area. This potential impact could be offset to some degree by the proposed increases in recreational resources and capacity within the opportunity area from implementing LARRMP open space development measures. Future implementation of the proposed revitalization measures at the Taylor Yard Opportunity Area is expected to result in a net beneficial impact on recreation resources and would address recreation and open space needs identified in the area’s community.
plans. Site-specific studies are required to assess the significance of any adverse recreational impacts that could result from LARRMP revitalization measures prior to their future implementation.

4.9.6 Chinatown-Cornfields Opportunity Area

4.9.6.1 Introduction
The two alternative configurations of measures considered in the LARRMP for the Chinatown-Cornfields Opportunity Area are Alternative CC-A and Alternative CC-B. Each alternative includes measures for river channel modification, open space development, and reinvestment. The two alternatives are summarized below and are described in detail in Chapter 2.

Alternative CC-A

River Channel Modification Measures
Alternative CC-A involves terracing the west bank up to the railroad tracks to provide a linear park and terracing of the east bank within the ROW to provide public access to the river’s edge, including an urban promenade along the bank top. Additional public access would be provided on the west bank by developing a walkway at the bank top with steps leading to the river’s edge.

Open Space Development Measures
Alternative CC-A includes development of a riverfront park to connect the Los Angeles State Historic Park eastward to the river channel. A linear park would be provided to connect the western edge of the state park to the terraced riverbank area. Three paseos, a paseo promenade, and a riverfront promenade along the east river bank are also proposed. Other open space measures include development of bikeways and trails, pedestrian river crossings, regional and neighborhood gateways, and water quality/habitat enhancement measures.

Reinvestment Measures
All properties within the opportunity area would be looked at as potential reinvestment areas, with the exception of the William Mead Housing Project and its associated school and the DWP transfer station. The reinvestment focus would be on creating residential/mixed-use frontage along Spring Street, mixed-use traditional on Main Street, and residential frontage along the linear open space between the state park and the river. Existing lot and block structure would continue to allow incremental redevelopment to use existing infrastructure, where possible.

Alternative CC-B

River Channel Modification Measures
These are the same as those for Alternative CC-A, except a channel diversion would be created, allowing the creation of a small island that supports habitat and passive recreation, such as hiking and bird watching. The west edge of the diversion would transition from riparian to upland habitat and the park.
Open Space Development Measures
These are the same as those for Alternative CC-A, except one of the proposed paseos is in a different location, there is one additional paseo promenade proposed, and the locations of some of the proposed regional and neighborhood gateways are different.

Reinvestment Measures
Alternative CC-B differs from Alternative CC-A in that all properties within the opportunity area would be looked at as potential reinvestment areas. With the DWP transfer station potentially relocated or incorporated into the proposed island, the DWP property would be available for redevelopment. Redevelopment would be focused on revised parcelization based on river revitalization opportunities. There would be redevelopment of existing school and public housing (with relocation required).

4.9.6.2 Potential Impacts and Mitigation Actions—Alternative CC-A
LARRMP revitalization measures that could result in recreational impacts in this opportunity area include those for river channel modification, open space development (parks, paseo and promenade measures, and trails and bikeways), and reinvestment. Potential impacts and mitigation actions are summarized in the following paragraphs.

River Channel Modification Measures
The proposed river bank terracing on both banks would provide indirect recreational benefits by improving aesthetic and environmental conditions in the river channel that would enhance the recreation experience at the adjoining proposed LARRMP parks in the opportunity area. Implementation of the river channel measures could result in potential adverse impacts associated with increased recreation demand at existing parks and facilities in the area (Alpine Park and Recreation Center, City Hall Park Center, Downey Recreation Center and Playground, Elysian Park, the Los Angeles Youth Athletic Club, and the Lincoln Heights Recreation Center). Further study of the effects of the measures on demand for recreation and park services at existing parks, including assessment of available resource capacity and identification of mitigation measures, is recommended before they are implemented.

Open Space Development Measures

Parks
Development of a riverfront park to provide an eastward extension of the Los Angeles State Historic Park to the Los Angeles River and develop the proposed linear parks would provide direct beneficial recreational impacts by providing new recreation resources and capacity in the opportunity area. Future implementation of the park would not reduce access to or limit the use of recreational resources in the River Corridor and vicinity. The significance of these potential beneficial recreational impacts should be studied to assist with comparison to any adverse impacts associated with land use conversion for park development (for example, housing and employment displacement or loss of industrial or public facilities lands). Implementation of the park could result in potential adverse impacts associated with increased recreation demand at existing parks and facilities in the area (Alpine Park and Recreation Center, City Hall Park Center, Downey Recreation Center and Playground, Elysian Park, the Los Angeles Youth Athletic Club, and the Lincoln Heights Recreation Center). Further study of the effects of the measures on demand for recreation and park services at existing parks, including assessment of available resource capacity and identification of appropriate mitigation measures is recommended before they are implemented.
Paseos and Promenades
Development of the proposed paseos, the paseo promenade, and the river front promenade could result in additional recreational demand at existing recreational parks and facilities within the River Corridor and vicinity by attracting more recreational visitors to the area. Sites within the demand area include Alpine Park and Recreation Center, City Hall Park Center, Downey Recreation Center and Playground, Elysian Park, the Los Angeles Youth Athletic Club, and the Lincoln Heights Recreation Center. Before the paseo and promenade measures are implemented, their effects should be studied further and the capacity of available resources should be assessed. These measures are not expected to result in any adverse recreational impacts by limiting access to, or use of, existing recreational facilities in the River Corridor.

Bikeways and Trails
Future implementation of trails and bikeway measures in the River Corridor would result in direct beneficial recreational impacts by providing new recreation resources and capacity. Future implementation of these measures is not expected to result in reduced access to, or limitations to the use of, existing recreational resources in the River Corridor and vicinity. The potential beneficial recreational impacts of these measures should be studied site by site beforehand and compared against any adverse impacts, as with paseos and promenades, above. Implementation of the proposed bikeways and trails could result in potential adverse impacts associated with increased recreation demand at existing parks and facilities in the area (Alpine Park and Recreation Center, City Hall Park Center, Downey Recreation Center and Playground, Elysian Park, the Los Angeles Youth Athletic Club, and the Lincoln Heights Recreation Center). Further study of the effects of the measures on demand for recreation and park services at existing parks, including assessment of available resource capacity and identification of appropriate mitigation measures is recommended before they are implemented.

Reinvestment Measures
Proposed changes to density and land use mix, including residential development and the proposed mixed use village, will require further study to assess recreation impacts from increased demand on existing recreational resources in the area; mitigation actions, if appropriate, should be identified.

4.9.6.3 Potential Impacts and Mitigation Actions—Alternative CC-B
The potential recreation resource impacts of the revitalization measures included in Alternative CC-B are the same as for Alternative CC-A, except where noted below.

Open Space Development Measures
Potential recreation impacts of proposed paseo promenades are similar to those with Alternative CC-A, except there are two (as opposed to one) paseo promenades proposed.

Reinvestment Measures
These impacts are similar to those of Alternative CC-A, but more intense land use changes are proposed, including the potential relocation of the DWP Transfer Station, William Mead Housing Project, and School at East Ann Street.

4.9.6.4 Evaluation of Impact Levels—Alternatives CC-A and CC-B
Implementation of future LARRMP river channel and open space modification projects in the Chinatown-Cornfields Opportunity Area could result in moderate to high impacts on recreation demand at existing parks
and recreation facilities in their vicinity. Site-specific analyses will be required to assess the significance of any impacts on demand for recreation and park services, evaluate the available resource capacity, identify appropriate mitigation to reduce impacts to less than significant levels, and identify any other effects related to access to or use of recreational facilities in the opportunity area.

Future implementation of Alternatives CC-A and CC-B would result in similar levels (moderate to high) of beneficial recreation impacts. Potential adverse impacts associated with increased demand at existing parks and facilities could be offset to some degree by the proposed increases in recreational resources and capacity within the opportunity area by implementing LARRMP open space development measures. Both alternatives are expected to result in a net beneficial impact on recreation resources and would address recreation and open space needs identified in the area’s general and community plan elements. Site-specific studies should be done to assess the significance of any adverse recreational impacts from LARRMP revitalization measures before they are implemented. These studies should address potential direct, indirect, and cumulative impacts.

4.9.7 Downtown Industrial Opportunity Area

4.9.7.1 Introduction
The two alternative configurations of measures considered in the LARRMP for the Downtown Industrial Opportunity Area are Alternative DI-A and Alternative DI-B. Each alternative includes river channel modification measures, open space development measures, and reinvestment measures. The two alternatives are summarized below and are described in detail in Chapter 2.

Alternative DI-A

**River Channel Modification Measures**
With Alternative DI-A, the river channel is opened up and terraced back in three locations on the east side to provide for small pocket parks and green street connections back into the community. On the west side, an urban promenade is created at the top of the bank, and the trapezoidal channel wall is reconfigured as a vertical wall.

**Open Space Development Measures**
Alternative DI-A includes development of a linear park by realigning the two rail lines on the east side of the river to the two innermost storage tracks along the eastern edge of the river. Grade-separated crossings below the rail lines would also be developed at selected locations to provide access into the park. Additional linear parks would be developed along bank tops on the west and east sides of the river. Three pocket parks are proposed on the east side of the river to provide access across rail lines. Green street improvements are proposed at locations throughout the opportunity area. Two paseos and a paseo promenade are proposed on the east side of the river. Other open space development measures proposed for the opportunity area include bikeways and trails, pedestrian river crossings, a series of regional and neighborhood gateways, and water quality/habitat enhancement features.

**Reinvestment Measures**
Underused properties within the opportunity area would be identified where new live-work units could be developed that reflect the existing character and land use mix of the neighborhood. Existing industrial land uses would be protected. The rail line would be shifted to the easternmost rail lines to provide additional
4.9 Recreation

parkland adjacent to the river. The rail would be placed on trestles at select locations to improve access to parks.

**Alternative DI-B**

**River Channel Modification Measures**
These are the same as those for Alternative DI-A, except the east side of the channel would be terraced to provide water quality treatment and open space between the Santa Ana Freeway and 7th Street.

**Open Space Development Measures**
These are the same as those for Alternative DI-A, except a larger linear park would be developed between the eastern banks of the river and Mission Road by realigning and consolidating the two rail lines on the east side with the two through-tracks on the west side of the river. The three pocket parks with Alternative DI-A are not provided because the east side of the channel would be terraced to provide water quality treatment and open space. Two paseo promenades are proposed, as opposed to one with Alternative DI-A, and additional pedestrian underpasses are proposed. Water quality and habitat measures are the same as those under Alternative DI-A, except a larger park/open space/habitat would be developed in the space provided by realigning and consolidating the two rail lines on the east side with the two through-tracks on the west side of the river.

**Reinvestment Measures**
These are the same as those for Alternative DI-A, except new mixed-use live-work residential properties would be located within the new open space with street frontage along Mission Road, the rail lines along the western edge of the river would be consolidated, and the existing inefficient industrial uses (in terms of jobs-per-square-foot) between 7th Street, the Santa Monica Freeway, and the river would be transformed into a greater density industrial jobs.

**4.9.7.2 Potential Impacts and Mitigation Actions—Alternative DI-A**
LARRMP revitalization measures that could result in recreational impacts in this opportunity area include river channel modification measures, several open space development measures (parks, paseo and promenade measures, and trails and bikeways), and reinvestment measures. Potential impacts and mitigation actions are summarized in the following paragraphs.

**River Channel Modification Measures**
The proposed measures to open up and terrace back the channel on the east side would provide indirect recreational benefits by improving aesthetic and environmental conditions in the river channel, which would enhance the recreation experience at the adjoining proposed LARRMP parks in the opportunity area. The proposed measure to reconfigure the west bank as a vertical wall supports development of an urban riverfront promenade at the top of the west bank. Implementation of the river channel measures could result in potential adverse impacts associated with increased recreation demand at existing parks and facilities in the area (6th and Gladys Park, Aliso Pico Recreation Center, Boyle Heights Sports Center Park, Hollenbeck Park and Recreation Center, Pecan Park and Recreation Center and Playground, Prospect Park, Roosevelt Pool, and the State Street Recreation Center). Further study of the effects of the measures on demand for recreation and park services at existing parks, including assessment of available resource capacity and identification of mitigation measures, is recommended before they are implemented.
Open Space Development Measures

Parks
The proposed upper and bank top linear parks and proposed pocket parks would provide direct beneficial recreational impacts by providing new recreation resources and capacity in the opportunity area. Future implementation of the park is not expected to result in reduced access to, or limitations to the use of, existing recreational resources in the River Corridor and vicinity. Site-specific study of the significance of these potential beneficial recreational impacts is recommended before the measures are implemented to assist with comparison to any adverse impacts from land use conversion for park development (for example, housing and employment displacement or loss of industrial or public facilities lands). Implementation of the parks could result in potential adverse impacts associated with increased recreation demand at existing parks and facilities in the area (6th and Gladys Park, Aliso Pico Recreation Center, Boyle Heights Sports Center Park, Hollenbeck Park and Recreation Center, Pecan Park and Recreation Center and Playground, Prospect Park, Roosevelt Pool, and the State Street Recreation Center). Further study of the effects of the measures on demand for recreation and park services at existing parks, including assessment of available resource capacity and identification of appropriate mitigation measures is recommended before they are implemented.

Paseos and Promenades
The proposed paseo, paseo promenade, and urban riverfront promenade could result in additional recreational demand at recreational parks and facilities within the River Corridor and vicinity by attracting more recreational visitors. Sites within the demand area include 6th and Gladys Park, Aliso Pico Recreation Center, Boyle Heights Sports Center Park, Hollenbeck Park and Recreation Center, Pecan Park and Recreation Center and Playground, Prospect Park, Roosevelt Pool, and the State Street Recreation Center. The effects of the paseo and promenade measures on the demand for recreation and park services should be studied further before the measures are implemented, along with an assessment of the capacity of available resources. These measures are not expected to result in any adverse recreational impacts by limiting access to, or use of, existing recreational facilities in the River Corridor.

Bikeways and Trails
Future implementation of trails and bikeway measures in the River Corridor would result in direct beneficial recreational impacts by providing new recreation resources and capacity. Future implementation of these measures is not expected to result in reduced access to, or limitations to the use of, existing recreational resources in the River Corridor and vicinity. Before these measures are implemented, their potential beneficial recreational impacts should be studied site by site to compare any adverse impacts, as described above under Paseos and Promenades. Implementation of the proposed bikeways and trails could result in potential adverse impacts associated with increased recreation demand at existing parks and facilities in the area (6th and Gladys Park, Aliso Pico Recreation Center, Boyle Heights Sports Center Park, Hollenbeck Park and Recreation Center, Pecan Park and Recreation Center and Playground, Prospect Park, Roosevelt Pool, and the State Street Recreation Center). Further study of the effects of the measures on demand for recreation and park services at existing parks, including assessment of available resource capacity and identification of appropriate mitigation measures is recommended before they are implemented.
Reinvestment Measures
Proposed changes to land use mix, including mixed-use developments, will require further study to assess any resulting impacts from increased demand on existing recreational resources in the area (see Paseos and Promenades, above), including identification of mitigation actions, if appropriate.

4.9.7.3 Potential Impacts and Mitigation Actions—Alternative DI-B
The potential recreation impacts of the LARRMP revitalization measures included in Alternative DI-B are generally the same as those for Alternative DI-A, except where noted below.

River Channel Modification Measures
These are similar to the land use impacts for Alternative DI-A, with the main difference being that instead of terracing at three relatively small areas, the terracing is implemented from the Santa Ana Freeway to 7th Street, a much larger potential impact area. The result is an expected increase in the level of secondary beneficial recreation impacts from the level provided by Alternative DI-A.

Open Space Development Measures
The expanded east bank linear park would be result in a higher level of beneficial recreation impacts by providing additional recreational and open space resources than that provided by Alternative DI-A.

4.9.7.4 Evaluation of Impact Levels—Alternatives DI-A and DI-B
Implementation of future LARRMP river channel and open space modification projects in the Downtown Industrial Opportunity Area could result in moderate to high impacts on recreation demand at existing parks and recreation facilities in their vicinity. Site-specific analyses will be required to assess the significance of any impacts on demand for recreation and park services, evaluate the capacity of available resources, identify appropriate mitigation to reduce impacts to less than significant levels, and identify any other effects related to access to or use of recreational facilities in the opportunity area.

Implementation of Alternative DI-A is expected to result in high beneficial recreation impacts. Implementation of Alternative DI-B would also have beneficial recreation impacts, higher than those impacts from Alternative DI-A. The increase in expected recreation impacts results from the proposed expansion of the east bank linear park.

Potential adverse impacts associated with increased demand at existing facilities could be offset to some degree by the proposed increases in recreational resources and capacity within the opportunity area by implementing the LARRMP open space development measures. Both alternatives are expected to result in a net beneficial impact on recreation resources and address recreation and open space needs identified in the area’s general and community plan elements. Before the LARRMP revitalization measures are implemented, site-specific studies are required to assess the significance of any adverse recreational impacts. These studies should address potential direct, indirect, and cumulative impacts.

4.9.8 No Project Alternative
Under the No Project Alternative, LARRMP revitalization measures within the 32-mile River Corridor and the five opportunity areas would not occur. Related river revitalization initiatives would provide some of the desired benefits, but there would not be a cohesive focused revitalization framework and focus for project evaluation and implementation. Projected population increases in the region would increase demand for
recreational resources. Communities in the River Corridor would continue to face a shortage of recreation and open space resources.
4.10 NOISE

4.10.1 Introduction
This section is an evaluation of the potential direct and indirect noise impacts associated with the proposed revitalization measures and the configuration of measures selected for each of the five opportunity areas. Mitigation actions that could be applied to reduce potential adverse noise impacts are identified, along with potential impacts from the No Project Alternative.

4.10.1.1 Regulatory Framework
Noise impacts are analyzed based on the standards and guidelines defined in the Noise Element of the City of Los Angeles General Plan. Noise management and regulations of the City of Los Angeles are based on the federal and state regulations, including the Noise Control Act, and on CEQA requirements. The city’s comprehensive noise ordinance establishes sound measurements and criteria and hours of operation for demolition and construction activities.

4.10.1.2 Significance Criteria
The primary criteria used in evaluating noise impact levels associated with implementing the LARRMP are based on the City of Los Angeles noise standards being exceeded during construction. When the revitalization projects are undertaken within residential areas or at 500 feet from residential zones, the following noise threshold must not be exceeded (City of Los Angeles 2006b):

- 75dB(A) for construction machinery;
- 75dB(A) for powered equipment; and
- 65dB(A) for powered equipment intended for repetitive use.

4.10.2 Potential Noise Impacts Associated with LARRMP River Channel Modification and Open Space Development Measures in the River Corridor

4.10.2.1 Types of Impacts
Short-term adverse impacts from construction are expected. Demolition and construction could affect sensitive receptors in the River Corridor. Although the specific type and quantity of demolition and construction vehicles and equipment would not be identified until specific projects are implemented, typical construction site equipment and their sound levels on the construction sites are listed in Table 4.10-1. As a point of reference, conversation generates approximately 70 dB, and 73 dB is twice as loud as 70 dB. Generally, demolition and construction would be limited to the daytime, when people are likely to be away from home. Additionally, noise levels would decrease with increasing distance from the project site and would be temporary and intermittent.

In the long term, the increased bike and pedestrian opportunities and open spaces to be implemented in the LARRMP could have the indirect beneficial impact of decreasing vehicle use, which may help in reducing noise sources in the River Corridor.
4.10 Noise

### Table 4.10-1
Typical Demolition and Construction Site Equipment Sound Levels

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Sound Level in Decibels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumatic chip hammer</td>
<td>103-113</td>
</tr>
<tr>
<td>Jack hammer</td>
<td>102-111</td>
</tr>
<tr>
<td>Circular saw</td>
<td>88-102</td>
</tr>
<tr>
<td>Bulldozer</td>
<td>93-96</td>
</tr>
<tr>
<td>Crane</td>
<td>90-96</td>
</tr>
<tr>
<td>Hammer</td>
<td>87-95</td>
</tr>
<tr>
<td>Front-end loader</td>
<td>86-94</td>
</tr>
<tr>
<td>Backhoe</td>
<td>84-93</td>
</tr>
</tbody>
</table>

Source: Center to Protect Workers’ Rights 2003

#### 4.10.2.2 Potential Impact Levels
As future LARRMP implementation projects are identified in the River Corridor, it is anticipated that noise sources and potential levels would be identified and procedures would be followed to ensure that each project conforms to applicable noise regulations. While the levels of noise impacts accompanying future construction projects depend on the topography and landscape, it is expected that construction activities in the vicinity of sensitive receptors would result in short term high and potentially significant noise impacts on sensitive receptors. However, it is likely that the LARRMP revitalization measures would be implemented through a series of local projects over an extended period, would occur at various locations along the 32-mile long River Corridor, and would have relatively short construction periods. Also, the types of mitigation actions and best management practices listed below would be available to reduce impact to less than significant levels.

#### 4.10.2.3 Mitigation Actions and Best Management Practices
General mitigation actions and best management practices to reduce noise levels associated with demolition and construction for LARRMP revitalization projects are as follows:

- Using enclosures or walls to surround noisy equipment;
- Installing mufflers on engines;
- Substituting quieter equipment or construction methods;
- Minimizing time of operation and locating equipment farther from sensitive receptors;
- Suspending construction activities between 7:00 PM and 7:00 AM and on weekends or holidays in residential areas; and
- Requiring contractors to comply with all local sound control and noise level rules, regulations, and ordinances.

Additional project-specific abatement actions should be identified, as needed.

### 4.10.3 Canoga Park Opportunity Area
This potential noise impacts associated with the two alternative configurations of revitalization measures presented in the LARRMP are discussed below.
4.10.3.1 Potential Impacts and Mitigation Actions—Alternative CP-A
Revitalization measures that make up Alternative CP-A include 1,200-foot-long terraces along the north and south side. The south side would include access to the water via a 15-foot-wide walkway and water treatment terraces; on the north side, a 15-foot-wide walkway and linear park would be provided. The channel would be modified to create intermittent habitat areas. Open space developments include a riverfront park, two linear parks, and a pocket park. Green streets would include three regional greenway connections and several arterial and local green streets. Open space developments would also include paseos every 300 feet in new developments, and one paseo promenade on each side of the river. Additionally, the proposed measures would include bikeways and trails, two pedestrian bridges, two regional gateways, and four neighborhood gateways. Reinvestment measures would include land acquisition for open space use.

The proposed measures might have potential short-term high and potentially significant adverse noise impacts on sensitive receptors at the Canoga Park Opportunity Area during demolition and construction. In the long term, no new noise sources would be introduced by implementing the proposed measures. Potential minor indirect noise reduction benefits are anticipated from pedestrian and bike opportunities reducing vehicle traffic within the opportunity area.

More detailed analysis is required at the project-level review to define site-specific mitigation actions that would reduce construction noise impacts. Noise generated from construction is expected to be short-term and the level of impact reduced to less than significant levels because construction of revitalization projects would likely be spaced out over a considerable period, and mitigation actions described in Section 4.10.2.3 would be available to future projects.

4.10.3.2 Potential Impacts and Mitigation Actions—Alternative CP-B
Potential noise impacts under Alternative CP-B are estimated to be similar to those described under Alternative CP-A, except for the relative increase in demolition and construction activities from the additional 1,800 feet of terraces and the expanded riverfront park. Long-term indirect beneficial noise impacts might be greater than those described under Alternative CP-A, because the more intensive reinvestment measures would promote mixed-use and greater pedestrian access (fewer vehicles). Similarly to Alternative CP-A, potential noise impacts under Alternative CP-B are expected to be reduced to less than significant levels with the implementation of mitigation actions described in Section 4.10.2.3.

4.10.4 River Glen Opportunity Area
The potential noise impacts from the two alternative configurations on River Glen Opportunity Area are discussed below.

4.10.4.1 Potential Impacts and Mitigation Actions—Alternative RG-A
The proposed measures at the River Glen Opportunity Area include the expansion of the Verdugo Wash confluence to serve as a regional water quality treatment wetland. Channel modification measures also include terraces above the 50-year storm elevation and intermittent habitat areas and a river parkway on the east bank. Open space developments include a continuous linear terraced park extending from Verdugo Wash to North Atwater Park, two regional greenway connections, arterial streets, and local green streets. Paseos are proposed at every 300 feet in new developments, and a paseo promenade is proposed along Brazil Street. Revitalization measures also include bikeways and trails, two pedestrian bridges, one pedestrian/equestrian
bridge, three regional gateways, and three neighborhood gateways. Reinvestment measures include extensive roadway improvements.

The proposed measures are expected to have potential short-term high and potentially significant noise impacts on sensitive receptors at the River Glen Opportunity Area, as they relate to demolition and construction. In the long term, proposed extensive roadway improvements might create additional traffic noise.

Potential traffic noise impacts could be substantially reduced by installing sound barriers constructed to shield sensitive receivers (such as residences) from traffic noise. Specific treatments should be determined based on site-specific conditions at the project level. Noise sources and levels should be identified, quantified and evaluated at the project-level review to ensure that future revitalization projects in this opportunity area conform to the applicable noise regulations. Potential noise generated from construction can be reduced by implementing appropriate mitigation actions described in Section 4.10.2.3.

4.10.4.2 Potential Impacts and Mitigation Actions—Alternative RG-B
Potential noise impacts under Alternative RG-B would be similar to those described under Alternative RG-A, except for the relative increase in construction noise from the planned realignment of Verdugo Wash, the street-end parks, and the water quality treatment terraces. Additional construction noise impacts would accompany redevelopment. Noise impacts under Alternative RG-B would be reduced to less than significant levels with the phased construction activities and implementation of feasible mitigation actions.

4.10.5 Taylor Yard Opportunity Area
The proposed revitalization measures at Taylor Yard Opportunity Area include one mile of terraces along the east bank and intermittent habitat areas along the channel bottom. Open space developments include a riverfront park between the river and the Metrolink Rail Corridor and a linear park along the western edge of the river. The selected configuration of measures include three regional greenway connections, two arterial green streets, and three local green streets. Paseos would be developed along Benedict and Birksdale Streets and Doris Place. Paseos and promenades would be located along Worthen and Eads Streets and Denby and Meadowvale Avenues. The proposed measures also include bikeways and trails, five pedestrian bridges, two regional gateways, and three neighborhood gateways. In the long term, the small industry along the west bank might be replaced with mixed land use as a result of the market pressure.

Demolition and construction would likely have potential short-term high and potentially significant impacts on sensitive receptors within the opportunity area. In the long term, potential noise impacts associated with vehicle traffic could be reduced from planned developments of pedestrian and bikeway opportunities and the potential replacement of the west bank industrial area with mixed-use development.

Noise generated from construction can likely be reduced to less than significant levels by implementing appropriate mitigation actions as described previously in Section 4.10.2.3.

4.10.6 Chinatown-Cornfields Opportunity Area
The potential noise impacts from the two alternative configurations of revitalization measures on the Chinatown-Cornfields Opportunity Area are discussed below.
4.10.6.1 Potential Impacts and Mitigation Actions—Alternative CC-A
The proposed channel modification measures within the Chinatown-Cornfields Opportunity Area include terraces along the west bank under the existing rail line to provide a linear park. Measures also include terraces along the east bank to provide access to the river edge and an urban promenade. Access to the river would be provided via a 15-foot-wide walkway at the top of the west bank, with steps leading down to the water’s edge. Open space development measures include extending the Los Angeles State Historic Park to the river edge and three linear parks. Regional greenway connections include the east/west streets between Downtown and Boyle Heights along Spring and Main Streets. Green streets development also include arterial green streets and local green streets. Paseos would be developed along all east/west roadways except Wilhardt Street where paseos and promenades would be developed. This alternative configuration of measures also includes bikeways and trails, one pedestrian bridge, two pedestrian underpasses, three regional gateways, and several neighborhood gateways. The proposed reinvestment measures include residential/mixed-use developments without increasing the existing infrastructure.

Demolition and construction that would accompany implementing the proposed configuration of measures would likely generate short-term high and potentially significant noise impacts on sensitive receptors. Expected reinvestment projects could reduce vehicle traffic noise impacts with development of mixed land use with more pedestrian and bike opportunities.

Once the proposed configuration of revitalization measures become more defined as specific projects, potential project-specific noise sources and levels should be identified, quantified, and evaluated to ensure that projects conform to the applicable noise regulations. Potential noise generated from construction could be reduced to less than significant levels by implementing appropriate mitigation actions, as described in Section 4.10.2.3.

4.10.6.2 Potential Impacts and Mitigation Actions—Alternative CC-B
Potential noise impacts from Alternative CC-B are similar to those described under Alternative CC-A, except for the relative increase in construction noise associated with constructing the channel diversion and the open space island. Relative increase in noise impacts can be reduced by implementing feasible mitigation actions, as described under Section 4.10.2.3. As with Alternative CC-A, potential noise impacts under Alternative CC-B could be reduced to less than significant levels.

4.10.7 Downtown Industrial Opportunity Area
This section presents a discussion of the potential noise impacts of the two proposed configurations of measures for the Downtown Industrial Opportunity Area.

4.10.7.1 Potential Impacts and Mitigation Actions—Alternative DI-A
With Alternative DI-A, the river channel is opened up and terraced back at three locations on the east side to provide for three small pocket parks and green street connections. Also along the east side, the two rail lines would be realigned to develop a linear park. An urban promenade and a vertical wall would be developed along the west side. The proposed configuration of measures would also include regional greenway connections at 1st, 4th, 6th, and 7th Streets, arterial green streets along 1st, 4th, 6th, and 7th Streets, and local green streets along all north/south and east/west local roadways. Paseos would be located in new developments every 400 feet and paseos promenades along 3rd and Willow Streets. Five pedestrian bridges would be located at 1st, 4th, 6th, and 7th Streets and the Santa Monica Freeway. Two regional gateways would be located at 1st
and 6th Streets and two neighborhood gateways at 3rd and Willow Streets. Proposed measures would also include mixed-use developments for underused properties. Existing industrial land uses would be protected, and rail lines would be relocated to create additional parkland adjacent to the river.

As future projects are identified and undertaken to implement the proposed configuration of measures comprising this alternative, demolition and construction would have potential short-term high and potentially significant noise impacts on sensitive receptors within the Downtown Industrial Opportunity Area. In the long term, with the development of the live-work units and the relocation of the rail line, potential reductions in vehicle traffic and greater distance between railroad activity and sensitive receptors are expected to provide indirect beneficial noise impacts.

Once the proposed configuration of revitalization measures become more defined as specific projects, potential project-specific noise sources and levels should be identified, quantified, and evaluated to ensure that projects conform to the applicable noise regulations. Because individual projects to implement the proposed configuration of measures would likely be constructed over an extended period (not all at once) and noise-reducing measures like those described in Section 4.10.2.3 would be available from each project, potential short-term and long-term noise impacts are expected to be reduced to less than significant levels.

4.10.7.2 Potential Impacts and Mitigation Actions—Alternative DI-B
Potential noise impacts with Alternative DI-B are similar to those described for Alternative DI-A, except for potential additional construction noise from the planned additional terraces and park space and the relocation of the two rail lines. In the long term, the increase in density of jobs in the industrial area might also create new noise sources. Overall, as is the case with Alternative DI-A, the potential levels of noise impacts with Alternative DI-B are expected to be reduced to less than significant levels due to construction likely taking place at intervals over an extended period, and with the implementation of the mitigation actions described in Section 4.10.2.3.

4.10.8 No Project Alternative
With the No Project Alternative, future developments involving demolition and construction activities might be undertaken in the River Corridor in the short term and long term. These developments would result in short-term construction noise impacts. In the foreseeable future it is also likely that road improvement projects would be undertaken that could result in long-term noise impacts from traffic. Proponents of any future development or road projects would be responsible for addressing potential project-specific and cumulative noise impacts and for implementing needed mitigation measures that are consistent with state and local guidelines and regulations.
4.11  PUBLIC HEALTH AND SAFETY

4.11.1  Introduction
This section is an evaluation of the potential direct and indirect impacts on public health and safety for each of the five opportunity areas, along with potential impacts associated with the No Project Alternative.

4.11.1.1  Regulatory Framework
Numerous environmental laws, regulations, and agencies govern the management and monitoring of public health and safety in the study area. An overview of some of the more pertinent regulations and the responsible agencies is presented below.

Federal
The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) established prohibitions and requirements concerning closed and abandoned hazardous waste sites (USEPA 2006a). The law authorizes two kinds of response actions: short-term removal to address releases or threatened releases requiring prompt response, and long-term remedial responses that permanently and significantly reduce the dangers from releases or threats of releases of hazardous substances that are serious but not immediately life threatening. These actions can be conducted only at sites listed on the USEPA’s NPL. Appearing on the list are national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants (USEPA 2006c). CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA).

The Resource Conservation and Recovery Act (RCRA) governs the disposal of solid and hazardous waste (USEPA 2006d). RCRA goals are to protect human health and the environment from the potential hazards of waste disposal, to conserve energy and natural resources, to reduce the amount of waste generated, and to ensure that wastes are managed in an environmentally sound manner. The solid waste program, under RCRA Subtitle D, encourages states to develop comprehensive plans to manage nonhazardous industrial solid waste and municipal solid waste. It also sets criteria for municipal solid waste landfills and other solid waste disposal facilities and prohibits the open dumping of solid waste. The hazardous waste program, under RCRA Subtitle C, establishes a system for controlling hazardous waste from the time it is generated until its ultimate disposal—in effect, from “cradle to grave.” The underground storage tank program, under RCRA Subtitle I, regulates underground storage tanks containing hazardous substances and petroleum products.

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Numerous EPA programs and regulations (such as RCRA and Superfund) are involved with the cleanup of brownfields. Also, the Small Business Liability Relief and Brownfields Revitalization Act (Pub. L. No. 107-118, 115 stat. 2356) amended the CERCLA (or Superfund) to clarify CERCLA liability protections (USEPA 2006b).

The Occupational Safety and Health (OSH) Act was enacted to ensure safe and healthful conditions for working men and women. The OSH Act created the Occupational Safety and Health Administration (OSHA) at the federal level and provided that states could run their own safety and health programs as long as those programs were at least as effective as the federal program.
State

RCRA allows individual states to develop their own programs for regulating hazardous waste, provided that the state program is at least as stringent as RCRA (City of Los Angeles 2005). California has developed the California Hazardous Waste Control Law (Health and Safety Code sec. 25100 et seq; 22 CCR sec. 66260.1 et seq.), which is modeled closely on RCRA. These regulations identify standards for the classification, management, transportation, and disposal of hazardous waste.

California operates a complete state plan covering both the private sector and state and local government employees. California Code of Regulations, Title 8, contains California OSHA regulations. The California OSHA program is administered and enforced by the Division of Occupational Safety and Health, a unit of the California Department of Industrial Relations.

Section 2002(j) of the State Health and Safety Code, for the purposes of vector control and prevention, defines a public nuisance (City of Los Angeles 2005). Section 2060 enables the Greater Los Angeles County Vector Control District to abate a public nuisance pursuant to “the person … who controls the diversion, delivery, conveyance, or flow of water shall be responsible for the abatement of a public nuisance that is caused by, or as a result of, that property or the diversion, delivery, conveyance, or control of that water.”

Local

Additional requirements pertaining to hazardous materials management are set forth in the City of Los Angeles Fire Code (City of Los Angeles 2005). The LAFC regulates the types, configuration, and quantities of hazardous materials that can be managed at a facility. Also, LAFC specifies design standards for the storage and management of hazardous materials. Citywide emergency response planning and emergency evacuation plans are coordinated by the Emergency Preparedness Department and the Emergency Operations Board of the City of Los Angeles. These plans are documented in the Emergency Operations Master Plan and Master Plan Procedures and Annexes of the City of Los Angeles. Operational units of the City of Los Angeles (e.g., departments) maintain emergency plans for their operations and facilities within the framework of the citywide plan. These plans are updated annually or when appropriate due to changed conditions.

In 2004, the City of Los Angeles approved Ordinance No. 175,790 amending Section 91.106.4.1 and Division 71 of Article 1, Chapter IX of the Los Angeles Municipal Code to establish citywide methane mitigation requirements and to include more current construction standards to control methane intrusion into buildings (City of Los Angeles 2005).

The City of Los Angeles Safety Element and Conservation Element address public health and safety with respect to hazardous materials, fires, methane, and brownfields (City of Los Angeles 1996b and 2001). The safety element goals, objectives, policies, and programs (which are also applicable to conservation element issues) are broadly stated to reflect the comprehensive scope of the Emergency Operations Organization (EOO). The EOO is the only program that implements the safety element. The safety element’s policies outline administrative considerations, which are addressed by EOO procedures, including its master plan, or which are observed in the carrying out of the plan. All City of Los Angeles agencies are part of the EOO, and all emergency preparedness, response, and recovery programs are integrated into EOO operations and are reviewed and revised continuously.
4.11.1.2 Significance Criteria
Potential public health and safety impacts associated with LARRMP projects are based on changes to public health and safety from the array of revitalization measures described in Chapter 2. Potential changes to public health and safety that may result from future construction and operation of these measures will need to be characterized at the time that projects are brought forward, in order to determine the project-specific types and levels of impacts (if any).

The programmatic evaluation of potential impacts in this PEIR/PEIS has included a general review of potential beneficial, adverse, short-term, long-term, direct, and indirect impacts. Also, potential impacts have been generally characterized as to level, using minor, moderate, or high, with the potential significance determined for high impacts. General criteria established in this programmatic evaluation to determine if a specific revitalization measure could have a significant adverse impact on public health and safety included the following:

- Creates a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Creates a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emits hazardous emissions or handles hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Is located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, creates a significant hazard to the public or the environment;
- Results in a safety hazard for people due to increased interaction with the Los Angeles River;
- Results in a safety hazard for people residing or working within the vicinity of a public airport, public use airport, or private airstrip;
- Impairs implementation of or physically interferes with an adopted emergency response plan or emergency evacuation plan;
- Exposes people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands; or
- Exposes people to infectious diseases.

Based on the above criteria, the following sections are a discussion of the types of potential impacts on public health and safety from the LARRMP revitalization measures within the River Corridor and the five opportunity areas.

4.11.2 Potential Impacts Associated with LARRMP River Channel Modification and Open Space Development Measures in the River Corridor
This section is a discussion of potential adverse and beneficial impacts on public health and safety within the River Corridor under the following six categories, which were previously described in Section 3.11:
- Hazardous, toxic, radioactive waste (HTRW);
- Los Angeles river water safety;
- School safety;
- Airport operations safety;
- Wildfire;
- Methane zones; and
- Infectious diseases.

### 4.11.2.1 General Types of Impacts and Mitigation

River channel modifications would add vegetation to ROW areas and develop habitat areas along the channel bottom. There are eight categories of open space development measures considered: parks, green streets, paseos and promenades, trails and bikeways, pedestrian river crossings, river loops, gateways, and water quality and habitat. These measures would create a more natural landscape along the banks, and also create paths and connections that are pedestrian- and bicycle-friendly, as well as areas for the public to gather. In some places, this would replace derelict or neglected land or structures.

**HTRW**

Construction and maintenance of the array of river channel modification and open space development measures within the River Corridor would involve the use of hazardous materials, such as fuel, oil, solvents, and lubricants. During these activities, the public could come into contact with or be exposed to hazardous materials during the routine transport, use, or disposal of hazardous materials, or as a result of an accidental release. However, standard operating procedures and best management practices would be implemented to minimize potential impacts. For example, standard construction site maintenance procedures, such as immediately cleaning up all spills and affixing lids to every container, should be employed during all construction phases to prevent exposure to hazardous materials. The city requires all users of hazardous materials to comply with state and federal occupational safety and health codes and regulations and to review and keep a record of material safety data sheets for site materials. Nonhazardous and hazardous waste should be disposed of at a certified landfill. Any recyclable material should be taken to a recycling facility. The city requires contractors to show proof that any nonhazardous and hazardous waste and any recyclable material were received by an authorized facility. No hazardous materials should remain permanently at a site. Also, construction sites should be fenced to prevent unauthorized access.

With the use of the above procedures, low adverse HTRW impacts on public health and safety are expected during construction.

Once specific designs of individual revitalization projects are prepared with additional site details, boundaries, and building or structure locations, subsequent environmental reviews should be conducted to further characterize potential impacts from hazardous materials and wastes. Subsequent environmental reviews should include reviewing the approximately 1,550 incidences/sites identified in Table 3.11-1 to determine the proximity of proposed project sites to the incidences/sites and to determine how specific hazardous materials at the incidences/sites could affect public health and safety. If subsequent environmental reviews identify potentially significant adverse impacts, mitigation would be required. Examples of mitigation could include removing any hazardous materials or wastes from contaminated land before construction begins or modifying...
project designs so as to not endanger the public. Soils and water quality in the river should be tested at locations where possible contamination is suspected. The DTSC, DHS, and EPA should be contacted to help identify the best sampling locations.

**Los Angeles River Water Safety**
Future LARRMP projects within the River Corridor involving proposed river channel modifications and open space measures should be designed so as to not expose the general public to unexpected dangers associated with proximity to the Los Angeles River that could result in accidental drowning or water-related injuries. However, because implementation of the LARRMP revitalization measures would increase the opportunities for the public to interact with the river, the risk of accidental drowning or water-related injury would also increase. This risk would be greatest during and following flooding. The potential for the public to enter the river channel during flooding would be greater. On this basis, high and potentially significant adverse impacts would be associated with Los Angeles River water safety. Development of channel configuration designs should include criteria that ensure that swift water rescues can be performed with maximum possible safety. Examples of mitigation for increased risk of accidental drowning and water-related injury include providing electronic signs, audible warnings, and gates to restrict access during flooding; and increasing police patrol units along the river (to a minimum of three additional units) to help ensure safety of citizens.

**School Safety**
Construction and maintenance of proposed LARRMP river channel and open space revitalization measures within the River Corridor would involve the use of hazardous materials, such as fuel, oil, solvents, and lubricants. During these activities, the public could come into contact with or be exposed to hazardous materials during the routine transport, use, or disposal of hazardous materials or as a result of an accidental release. Hazardous emissions, such as PM$_{10}$, could occur within one-quarter mile of a school, and construction equipment or activities could accidentally start a fire in a high fire hazard zone. However, standard operating procedures would be implemented to minimize potential impacts. For example, for PM$_{10}$ emissions, standard construction site maintenance procedures include maintaining equipment in proper working condition and watering project sites to minimize fugitive dust. Also, construction sites would be fenced to prevent unauthorized access. If these types of procedures were followed, there would be minimal adverse impacts from exposing students or school staff to hazardous emissions or hazardous materials.

**Airport Operations Safety**
The southern portion of the Van Nuys Airport is within one mile of the Los Angeles River. The proposed LARRMP river channel modification and open space measures within the River Corridor do not include structures that would interfere with airport operations or safety, so there would be no adverse impacts on airport operations safety.

**Wildfire**
Construction and maintenance of future LARRMP river channel modification and open space measures within the River Corridor would involve construction equipment or activities that could accidentally start a fire in a high fire hazard zone. However, standard operating procedures should be implemented to minimize potential impacts. For example, construction and maintenance equipment should be required to be maintained in proper working condition, and only certified or trained operators should be allowed to use equipment. Also, no smoking should be allowed at project sites, and fire extinguishers should be required at
project sites. With these standard precautions and procedures, low adverse wildfire impacts during construction are expected.

**Methane Zones**
As discussed previously in Section 3.11, portions of the River Corridor are within mapped methane zones and buffer zones (see Figure 3.11-2). Construction and maintenance of future LARRMP river channel modification and open space measures within the River Corridor should be done in accordance with regulations pertaining to development within methane zones and buffer zones. On this basis, minimal adverse impacts from methane are expected.

**Vector-Borne Diseases**
During scoping, the City of Burbank expressed concern about the spread or increase in infectious diseases because breeding grounds, such as standing water, for mosquitoes would increase under the proposed measures. Although the aerial extent of surface water is expected to increase under the proposed measures, the suitability of habitat for vectors cannot be determined. Once specific designs of individual river revitalization projects are prepared with additional details, subsequent environmental reviews should be conducted to further characterize potential impacts from vector-borne diseases.

### 4.11.2.2 Potential Impact Levels
There would be minimal to low potential impacts involving HTRW, school safety, airport operations safety, wildfire, and methane zones. However, because implementation of the LARRMP revitalization measures would increase the opportunities for the public to interact with the river, the risk of accidental drowning or water-related injury would also increase. This risk would be greatest during and following flooding. The potential for the public to enter the river channel during flooding would be greater. On this basis, high and potentially significant adverse impacts would be associated with Los Angeles River water safety. Once specific designs are prepared with additional site details, boundaries, and building or structure locations, subsequent environmental reviews should be conducted to further characterize potential impacts from hazardous materials and wastes. Subsequent environmental reviews should include reviewing the approximately 1,550 incidences/sites identified in Table 3.11-1 to determine the proximity of proposed measures to the incidences/sites and to determine how specific hazardous materials at the incidences/sites could affect public health and safety. If subsequent environmental reviews identify potentially significant adverse impacts, mitigation would be required. Examples of mitigation could include removing hazardous materials or wastes from contaminated land before construction begins or modifying project designs so as to not endanger the public.

### 4.11.3 Canoga Park Opportunity Area
This section is a description of the potential adverse and beneficial impacts on public health and safety associated with the Alternative CP-A and Alternative CP-B for the Canoga Park Opportunity Area.

#### 4.11.3.1 Potential Public Health and Safety Impacts—Alternative CP-A
River channel modifications would add natural areas in and adjacent to the river, increasing the presence of natural areas visible from the banks of the river. Also, as described in Chapter 2, there are eight categories of open space development measures that may be implemented, namely parks, green streets, paseos and promenades, trails and bikeways, pedestrian river crossings, river loops, gateways, and water quality and habitat areas. These measures would create a more natural landscape along the banks of the river by
establishing a variety of parks, greening a variety of streets by, for example, planting trees, and establishing vegetated areas to filter river water. These measures would also create paths and connections that are pedestrian- and bicycle-friendly, as well as create areas for the public to gather. In some places, this would replace derelict or neglected land or structures.

**HTRW**

Construction and maintenance of the configuration of river channel modification, open space development, and revitalization measures for Alternative CP-A would involve the use of hazardous materials, such as fuel, oil, solvents, and lubricants. During these activities, the public could come into contact or be exposed to hazardous materials during the routine transport, use, or disposal of hazardous materials, or as a result of an accidental release. However, standard operating procedures and best management practices would be implemented to minimize potential impacts. For example, standard construction site maintenance procedures, such as immediately cleaning up all spills and affixing lids to every container, should be employed during all construction phases to prevent exposure to hazardous materials. The city requires all users of hazardous materials to comply with state and federal occupational safety and health codes and regulations and to review and keep a record of material safety data sheets for site materials. Nonhazardous and hazardous waste should be disposed of at a certified landfill, and recyclable material should be taken to a recycling facility. The city requires contractors to show proof that any nonhazardous and hazardous waste and any recyclable material were taken to an authorized facility. No hazardous materials should remain permanently at a site. Also, construction sites should be fenced to prevent unauthorized access. With the use of the above procedures, minimal adverse HTRW impacts on public health and safety are expected during construction.

Once specific designs of individual revitalization projects for this alternative are prepared with additional site details, boundaries, and building or structure locations within the Canoga Park Opportunity Area, subsequent environmental reviews should be conducted to further characterize potential impacts from hazardous materials and wastes. Subsequent environmental reviews should include reviewing the approximately 1,550 incidences/sites identified in Table 3.11-1 to determine the proximity of proposed project sites to the incidences/sites and to determine how specific hazardous materials at the incidences/sites could affect public health and safety. If subsequent environmental reviews identify potentially significant adverse impacts, mitigation would be required. Examples of mitigation could include removing any hazardous materials or wastes from contaminated land before construction commences or modifying project designs so as to not endanger the public.

**Los Angeles River Water Safety**

LARRMP projects should be designed so as to not expose the general public to accidental drowning or water-related injuries. However, because implementation of the LARRMP revitalization measures would increase the opportunities for the public to interact with the river, the risk of accidental drowning or water-related injury would also increase. This risk would be greatest during and following flooding. The potential for the public to enter the river channel during flooding would be greater. On this basis, high and potentially significant adverse impacts would be associated with Los Angeles River water safety.

**School Safety**

Construction and maintenance of proposed LARRMP river channel, open space, and reinvestment measures within the Canoga Park Opportunity Area for Alternative CP-A would involve the use of hazardous materials, such as fuel, oil, solvents, and lubricants. During these activities, the public could come into contact
with or be exposed to hazardous materials during the routine transport, use, or disposal of hazardous materials or as a result of an accidental release. Hazardous emissions of such pollutants as PM$_{10}$ could occur within one-quarter mile of a school, and construction equipment or activities could accidentally start a fire in a high fire hazard zone. However, standard operating procedures would be implemented to minimize potential impacts. For example, for PM$_{10}$ emissions, standard construction site maintenance procedures include maintaining equipment in proper working order and watering project sites to minimize fugitive dust. Also, construction sites would be fenced to prevent unauthorized access. If these types of procedures are followed, there would be minimal adverse impacts from exposing students or school staff to hazardous emissions or hazardous materials.

**Airport Operations Safety**

There are no airports in the vicinity of the opportunity area, so no adverse impacts on airport safety are expected.

**Wildfire**

There are no high fire hazard zones in the opportunity area, so minimal adverse wildfire impacts are expected during construction.

**Methane Zones**

There are no methane zones or methane buffer zones in the opportunity area. Minimal adverse impacts from methane are expected.

**Vector-Borne Diseases**

During scoping, the City of Burbank expressed concern about the spread or increase in infectious diseases because breeding grounds, such as standing water, for mosquitoes would increase under the proposed measures. Although the aerial extent of surface water is expected to increase under the proposed measures, the suitability of habitat for vectors cannot be determined. Once specific designs of individual river revitalization projects are prepared with additional details, subsequent environmental reviews should be conducted to further characterize potential impacts from vector-borne diseases.

**4.11.3.2 Potential Public Health and Safety Impacts—Alternative CP-B**

Impacts on public health and safety would be similar to those described above for Alternative CP-A.

**4.11.4 River Glen Opportunity Area**

This section is a description of the potential adverse and beneficial impacts on public health and safety from Alternative RG-A and Alternative RG-B for the River Glen Opportunity Area.

**4.11.4.1 Potential Public Health and Safety Impacts—Alternative RG-A**

River channel modifications would add natural areas in and adjacent to the river, increasing the presence of natural areas visible from the banks of the river. Also, as described in Chapter 2, there are eight categories of open space development measures that may be implemented, namely parks, green streets, paseos and promenades, trails and bikeways, pedestrian river crossings, river loops, gateways, and water quality and habitat areas. These measures would create a more natural landscape along the banks of the river by establishing a variety of parks, greening a variety of streets by, for example, planting trees, and establishing vegetated areas to filter river water. These measures would also create paths and connections that are
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pedestrian- and bicycle-friendly, as well as create areas for the public to gather. In some places, this would replace derelict or neglected land or structures.

**HTRW**

Construction and maintenance of the configuration of river channel modification, open space development, and revitalization measures for Alternative RG-A would involve the use of hazardous materials, such as fuel, oil, solvents, and lubricants. During these activities, the public could come into contact or be exposed to hazardous materials during the routine transport, use, or disposal of hazardous materials, or as a result of an accidental release. However, standard operating procedures and best management practices would be implemented to minimize potential impacts. For example, standard construction site maintenance procedures, such as immediately cleaning up all spills and affixing lids to every container, should be employed during all construction phases to prevent exposure to hazardous materials. The city requires all users of hazardous materials to comply with state and federal occupational safety and health codes and regulations and to review and keep a record of material safety data sheets for site materials. Nonhazardous and hazardous waste should be disposed of at a certified landfill, and recyclable material should be taken to a recycling facility. The city requires contractors to show proof that any nonhazardous and hazardous waste and any recyclable material were taken to an authorized facility. No hazardous materials should remain permanently at a site. Also, construction sites should be fenced to prevent unauthorized access. With the use of the above procedures, minimal adverse HTRW impacts on public health and safety are expected during construction.

Once specific designs of individual revitalization projects for this alternative are prepared with additional site details, boundaries, and building or structure locations within the River Glen Opportunity Area, subsequent environmental reviews should be conducted to further characterize potential impacts from hazardous materials and wastes. Subsequent environmental reviews should include reviewing the approximately 1,550 incidences/sites identified in Table 3.11-1 to determine the proximity of proposed project sites to the incidences/sites and to determine how specific hazardous materials at the incidences/sites could affect public health and safety. If subsequent environmental reviews identify potentially significant adverse impacts, mitigation would be required. Examples of mitigation could include removing any hazardous materials or wastes from contaminated land before construction commences or modifying project designs so as to not endanger the public.

**Los Angeles River Water Safety**

LARRMP projects should be designed so as to not expose the general public to accidental drowning or water-related injuries. However, because implementation of the LARRMP revitalization measures would increase the opportunities for the public to interact with the river, the risk of accidental drowning or water-related injury would also increase. This risk would be greatest during and following flooding. The potential for the public to enter the river channel during flooding would be greater. On this basis, high and potentially significant adverse impacts would be associated with Los Angeles River water safety.

**School Safety**

Construction and maintenance of proposed LARRMP river channel, open space and reinvestment measures within the River Glen Opportunity Area for Alternative CP-A would involve the use of hazardous materials, such as fuel, oil, solvents, and lubricants. During these activities, the public could come into contact with or be exposed to hazardous materials during the routine transport, use, or disposal of hazardous materials or as a result of an accidental release. Hazardous emissions of such pollutants as PM$_{10}$ could occur within one-
quarter mile of a school, and construction equipment or activities could accidentally start a fire in a high fire hazard zone. However, standard operating procedures would be implemented to minimize potential impacts. For example, for PM$_{10}$ emissions, standard construction site maintenance procedures include maintaining equipment in proper working order and watering project sites to minimize fugitive dust. Also, construction sites would be fenced to prevent unauthorized access. If these types of procedures are followed, there would be minimal adverse impacts from exposing students or school staff to hazardous emissions or hazardous materials.

**Airport Operations Safety**
There are no airports in the vicinity of the opportunity area, so no adverse impacts on airport safety are expected.

**Wildfire**
Construction and maintenance of proposed river channel modification, open space development, and reinvestment measures within the River Glen Opportunity Area for Alternative RG-A would involve construction equipment or activities that could accidentally ignite a fire in a high fire hazard zone. However, standard operating procedures would be implemented to minimize potential impacts. For example, construction and maintenance equipment would be maintained in proper working condition and only certified or trained operators would be allowed to use the equipment. Also, no smoking would be allowed at project sites, and fire extinguishers would be required at project sites. With these standard precautions and procedures, minimal adverse wildfire impacts during construction are expected.

**Methane Zones**
Proposed Alternative RG-A revitalization measures would be implemented in methane buffer zones. Regulations pertaining to construction in methane zones would be followed, resulting in minimal adverse impacts from methane.

**Vector-Borne Diseases**
During scoping, the City of Burbank expressed concern about the spread or increase in infectious diseases because breeding grounds, such as standing water, for mosquitoes would increase under the proposed measures. Although the aerial extent of surface water is expected to increase under the proposed measures, the suitability of habitat for vectors cannot be determined. Once specific designs of individual river revitalization projects are prepared with additional details, subsequent environmental reviews should be conducted to further characterize potential impacts from vector-borne diseases.

**4.11.4.2 Potential Public Health and Safety Impacts—Alternative RG-B**
Impacts on public health and safety would result in impacts similar to those described above for Alternative RG-A.

**4.11.5 Taylor Yard Opportunity Area**
This section is a description of the potential adverse and beneficial impacts on public health and safety associated with the configuration of river channel modification, open space development, and revitalization measures proposed for the Taylor Yard Opportunity Area.
4.11 Public Health and Safety

4.11.5.1 Potential Public Health and Safety Impacts

River channel modifications would add natural areas in and adjacent to the river, increasing the presence of natural areas visible from the banks of the river. Also, as described in Chapter 2, there are eight categories of open space development measures that may be implemented, namely parks, green streets, paseos and promenades, trails and bikeways, pedestrian river crossings, river loops, gateways, and water quality and habitat areas. These measures would create a more natural landscape along the banks of the river by establishing a variety of parks, greening a variety of streets by, for example, planting trees, and establishing vegetated areas to filter river water. These measures would also create paths and connections that are pedestrian- and bicycle-friendly, as well as create areas for the public to gather. In some places, this would replace derelict or neglected land or structures.

**HTRW**

Construction and maintenance of the proposed configuration of river channel modification, open space development, and revitalization measures within Taylor Yard Opportunity Area would involve the use of hazardous materials, such as fuel, oil, solvents, and lubricants. During these activities, the public could come into contact or be exposed to hazardous materials during the routine transport, use, or disposal of hazardous materials, or as a result of an accidental release. However, standard operating procedures and best management practices would be implemented to minimize potential impacts. For example, standard construction site maintenance procedures, such as immediately cleaning up all spills and affixing lids to every container, should be employed during all construction phases to prevent exposure to hazardous materials. The city requires all users of hazardous materials to comply with state and federal occupational safety and health codes and regulations and to review and keep a record of material safety data sheets for site materials. Nonhazardous and hazardous waste should be disposed of at a certified landfill, and recyclable material should be taken to a recycling facility. The city requires contractors to show proof that any nonhazardous and hazardous waste and any recyclable material were taken to an authorized facility. No hazardous materials should remain permanently at a site. Also, construction sites should be fenced to prevent unauthorized access. With the use of the above procedures, minimal adverse HTRW impacts on public health and safety are expected during construction.

Once specific designs of individual revitalization projects for the proposed configuration of measures are prepared with additional site details, boundaries, and building or structure locations within the Taylor Yard Opportunity Area, subsequent environmental reviews should be conducted to further characterize potential impacts from hazardous materials and wastes. Subsequent environmental reviews should include reviewing the approximately 1,550 incidences/sites identified in Table 3.11-1 to determine the proximity of proposed project sites to the incidences/sites and to determine how specific hazardous materials at the incidences/sites could affect public health and safety. If subsequent environmental reviews identify potentially significant adverse impacts, mitigation would be required. Examples of mitigation could include removing any hazardous materials or wastes from contaminated land before construction begins or modifying project designs so as to not endanger the public.

**Los Angeles River Water Safety**

LARRMP projects should be designed so as to not expose the general public to accidental drowning or water-related injuries. However, because implementation of the LARRMP revitalization measures would increase the opportunities for the public to interact with the river, the risk of accidental drowning or water-related injury would also increase. This risk would be greatest during and following flooding. The potential for the
public to enter the river channel during flooding would be greater. On this basis, high and potentially significant adverse impacts would be associated with Los Angeles River water safety.

**School Safety**
Construction and maintenance of proposed LARRMP river channel, open space and reinvestment measures within the Taylor Yard Opportunity Area would involve the use of hazardous materials, such as fuel, oil, solvents, and lubricants. During these activities, the public could come into contact with or be exposed to hazardous materials during the routine transport, use, or disposal of hazardous materials or as a result of an accidental release. Hazardous emissions of such pollutants as PM$_{10}$ could occur within one-quarter mile of a school, and construction equipment or activities could accidentally start a fire in a high fire hazard zone. However, standard operating procedures would be implemented to minimize potential impacts. For example, for PM$_{10}$ emissions, standard construction site maintenance procedures include maintaining equipment in proper working condition and only certified or trained operators would be allowed to use the equipment. Also, no smoking would be allowed at project sites, and fire extinguishers would be required at project sites. With these standard precautions and procedures, minimal adverse wildfire impacts during construction are expected.

**Airport Operations Safety**
There are no airports in the vicinity of the opportunity area, so no adverse impacts on airport safety are expected.

**Wildfire**
Construction and maintenance of proposed river channel modification, open space development, and reinvestment measures within the Taylor Yard Opportunity Area would involve construction equipment or activities that could accidentally ignite a fire in a high fire hazard zone. However, standard operating procedures would be implemented to minimize potential impacts. For example, construction and maintenance equipment would be maintained in proper working condition and only certified or trained operators would be allowed to use the equipment. Also, no smoking would be allowed at project sites, and fire extinguishers would be required at project sites. With these standard precautions and procedures, minimal adverse wildfire impacts during construction are expected.

**Methane Zones**
The proposed configuration of revitalization measures would be implemented in methane buffer zones. Regulations pertaining to construction in methane zones would be followed, resulting in minimal adverse impacts from methane.

**Vector-Borne Diseases**
During scoping, the City of Burbank expressed concern about the spread or increase in infectious diseases because breeding grounds, such as standing water, for mosquitoes would increase under the proposed measures. Although the aerial extent of surface water is expected to increase under the proposed measures, the suitability of habitat for vectors cannot be determined. Once specific designs of individual river revitalization projects are prepared with additional details, subsequent environmental reviews should be conducted to further characterize potential impacts from vector-borne diseases.
4.11.6 Chinatown-Cornfields Opportunity Area
This section is a description of the potential adverse and beneficial impacts on public health and safety from Alternative CC-A and Alternative CC-B in the Chinatown-Cornfields Opportunity Area.

4.11.6.1 Potential Public Health and Safety Impacts—Alternative CC-A
River channel modifications would add natural areas in and adjacent to the river, increasing the presence of natural areas visible from the banks of the river. Also, as described in Chapter 2, there are eight categories of open space development measures that may be implemented, namely parks, green streets, paseos and promenades, trails and bikeways, pedestrian river crossings, river loops, gateways, and water quality and habitat areas. These measures would create a more natural landscape along the banks of the river by establishing a variety of parks, greening a variety of streets by, for example, planting trees, and establishing vegetated areas to filter river water. These measures would also create paths and connections that are pedestrian- and bicycle-friendly, as well as create areas for the public to gather. In some places, this would replace derelict or neglected land or structures.

HTRW
Construction and maintenance of the configuration of river channel modification, open space development, and revitalization measures for Alternative CC-A would involve the use of hazardous materials, such as fuel, oil, solvents, and lubricants. During these activities, the public could come into contact or be exposed to hazardous materials during the routine transport, use, or disposal of hazardous materials, or as a result of an accidental release. However, standard operating procedures and best management practices would be implemented to minimize potential impacts. For example, standard construction site maintenance procedures, such as immediately cleaning up all spills and affixing lids to every container, should be employed during all construction phases to prevent exposure to hazardous materials. The city requires all users of hazardous materials to comply with state and federal occupational safety and health codes and regulations and to review and keep a record of material safety data sheets for site materials. Nonhazardous and hazardous waste should be disposed of at a certified landfill, and recyclable material should be taken to a recycling facility. The city requires contractors to show proof that any nonhazardous and hazardous waste and any recyclable material were taken to an authorized facility. No hazardous materials should remain permanently at a site. Also, construction sites should be fenced to prevent unauthorized access. With the use of the above procedures, minimal adverse HTRW impacts on public health and safety are expected during construction.

Once specific designs of individual revitalization projects for this alternative are prepared with additional site details, boundaries, and building or structure locations within the Chinatown-Cornfields Opportunity Area, subsequent environmental reviews should be conducted to further characterize potential impacts from hazardous materials and wastes. Subsequent environmental reviews should include reviewing the approximately 1,550 incidences/sites identified in Table 3.11-1 to determine the proximity of proposed project sites to the incidences/sites and to determine how specific hazardous materials at the incidences/sites could affect public health and safety. If subsequent environmental reviews identify potentially significant adverse impacts, mitigation would be required. Examples of mitigation could include removing any hazardous materials or wastes from contaminated land before construction begins or modifying project designs so as to not endanger the public.
Los Angeles River Water Safety

LARRMP projects should be designed so as to not expose the general public to accidental drowning or water-related injuries. However, because implementation of the LARRMP revitalization measures would increase the opportunities for the public to interact with the river, the risk of accidental drowning or water-related injury would also increase. This risk would be greatest during and following flooding. The potential for the public to enter the river channel during flooding would be greater. On this basis, high and potentially significant adverse impacts would be associated with Los Angeles River water safety.

School Safety

Construction and maintenance of proposed LARRMP river channel, open space, and reinvestment measures within the Chinatown-Cornfields Opportunity Area for Alternative CC-A would involve the use of hazardous materials, such as fuel, oil, solvents, and lubricants. During these activities, the public could come into contact with or be exposed to hazardous materials during the routine transport, use, or disposal of hazardous materials or as a result of an accidental release. Hazardous emissions, such as PM$_{10}$, could occur within one-quarter mile of a school, and construction equipment or activities could start a fire in a high fire hazard zone. However, standard operating procedures would be implemented to minimize potential impacts. For example, for PM$_{10}$ emissions, standard construction site maintenance procedures include maintaining equipment in proper working order and watering project sites to minimize fugitive dust. Also, construction sites would be fenced to prevent unauthorized access. If these types of procedures are followed, there would be minimal adverse impacts from exposing students or school staff to hazardous emissions or hazardous materials.

Airport Operations Safety

There are no airports in the vicinity of the opportunity area, so no adverse impacts on airport safety are expected.

Wildfire

Construction and maintenance of proposed river channel modification, open space development, and reinvestment measures within the Cornfield-Chinatown Opportunity Area for Alternative CC-A would involve construction equipment or activities that could start a fire in a high fire hazard zone. However, standard operating procedures would be implemented to minimize potential impacts. For example, construction and maintenance equipment would be required to be maintained in proper working condition, and only certified or trained operators would be allowed to use this equipment. Also, no smoking would be allowed at project sites, and fire extinguishers would be required at project sites. With these standard precautions and procedures, minimal adverse wildfire impacts during construction are expected.

Methane Zones

The proposed Alternative CC-A revitalization measures would be implemented in methane buffer zones. Regulations pertaining to construction in methane zones would be followed, resulting in minimal adverse impacts from methane.

Vector-Borne Diseases

During scoping, the City of Burbank expressed concern about the spread or increase in infectious diseases because breeding grounds, such as standing water, for mosquitoes would increase under the proposed measures. Although the aerial extent of surface water is expected to increase under the proposed measures, the suitability of habitat for vectors cannot be determined. Once specific designs of individual river
4.11 Public Health and Safety

4.11.6.2 Potential Public Health and Safety Impacts—Alternative CC-B
Impacts on public health and safety would result in impacts similar to those described above for Alternative CC-A.

4.11.7 Downtown Industrial Opportunity Area
This section describes the potential adverse and beneficial impacts on public health and safety associated with Alternative DI-A and Alternative DI-B in the Downtown Industrial Opportunity Area.

4.11.7.1 Potential Public Health and Safety Impacts—Alternative DI-A
River channel modifications would add natural areas in and adjacent to the river, increasing the presence of natural areas visible from the banks of the river. Also, as described in Chapter 2, there are eight categories of open space development measures that may be implemented, namely parks, green streets, paseos and promenades, trails and bikeways, pedestrian river crossings, river loops, gateways, and water quality and habitat areas. These measures would create a more natural landscape along the banks of the river by establishing a variety of parks, greening a variety of streets by, for example, planting trees, and establishing vegetated areas to filter river water. These measures would also create paths and connections that are pedestrian- and bicycle-friendly, as well as create areas for the public to gather. In some places, this would replace derelict or neglected land or structures.

HTRW
Construction and maintenance of the configuration of river channel modification, open space development, and revitalization measures for Alternative DI-A would involve the use of hazardous materials, such as fuel, oil, solvents, and lubricants. During these activities, the public could come into contact or be exposed to hazardous materials during the routine transport, use, or disposal of hazardous materials, or as a result of an accidental release. However, standard operating procedures and best management practices would be implemented to minimize potential impacts. For example, standard construction site maintenance procedures, such as immediately cleaning up all spills and affixing lids to every container, should be employed during all construction phases to prevent exposure to hazardous materials. The city requires all users of hazardous materials to comply with state and federal occupational safety and health codes and regulations and to review and keep a record of material safety data sheets for site materials. Nonhazardous and hazardous waste should be disposed of at a certified landfill, and recyclable material should be taken to a recycling facility. The city requires contractors to show proof that any nonhazardous and hazardous waste and any recyclable material were taken to an authorized facility. No hazardous materials should remain permanently at a site. Also, construction sites should be fenced to prevent unauthorized access. With the use of the above procedures, minimal adverse HTRW impacts on public health and safety are expected during construction.

Once specific designs of individual revitalization projects for this alternative are prepared with additional site details, boundaries, and building or structure locations within the Downtown Industrial Opportunity Area, subsequent environmental reviews should be conducted to further characterize potential impacts from hazardous materials and wastes. Subsequent environmental reviews should include reviewing the approximately 1,550 incidences/sites identified in Table 3.11-1 to determine the proximity of proposed project sites to the incidences/sites and to determine how specific hazardous materials at the incidences/sites
could affect public health and safety. If subsequent environmental reviews identify potentially significant adverse impacts, mitigation would be required. Examples of mitigation could include removing any hazardous materials or wastes from contaminated land before construction begins or modifying project designs so as to not endanger the public.

**Los Angeles River Water Safety**

LARRMP projects should be designed so as to not expose the general public to accidental drowning or water-related injuries. However, because implementation of the LARRMP revitalization measures would increase the opportunities for the public to interact with the river, the risk of accidental drowning or water-related injury would also increase. This risk would be greatest during and following flooding. The potential for the public to enter the river channel during flooding would be greater. On this basis, high and potentially significant adverse impacts would be associated with Los Angeles River water safety.

**School Safety**

Construction and maintenance of proposed LARRMP river channel, open space, and reinvestment measures within the Downtown Industrial Opportunity Area for Alternative DI-A would involve the use of hazardous materials, such as fuel, oil, solvents, and lubricants. During these activities, the public could come into contact with or be exposed to hazardous materials during the routine transport, use, or disposal of hazardous materials or as a result of an accidental release. Hazardous emissions, such as PM_{10}, could occur within one-quarter mile of a school, and construction equipment or activities could start a fire in a high fire hazard zone. However, standard operating procedures would be implemented to minimize potential impacts. For example, for PM_{10} emissions, standard construction site maintenance procedures include maintaining equipment in proper working order and watering project sites to minimize fugitive dust. Also, construction sites would be fenced to prevent unauthorized access. If these types of procedures are followed, there would be minimal adverse impacts from exposing students or school staff to hazardous emissions or hazardous materials.

**Airport Operations Safety**

There are no airports in the vicinity of the opportunity area, so no adverse impacts on airport safety are expected.

**Wildfire**

There are no high fire hazard zones in the opportunity area, so minimal adverse wildfire impacts are expected during construction.

**Methane Zones**

The proposed Alternative DI-A revitalization measures would be implemented in methane buffer zones; however, Regulations pertaining to construction in methane zones would be followed, resulting in minimal adverse impacts from methane.

**Vector-Borne Diseases**

During scoping, the City of Burbank expressed concern about the spread or increase in infectious diseases because breeding grounds, such as standing water, for mosquitoes would increase under the proposed measures. Although the aerial extent of surface water is expected to increase under the proposed measures, the suitability of habitat for vectors cannot be determined. Once specific designs of individual river
revitalization projects are prepared with additional details, subsequent environmental reviews should be conducted to further characterize potential impacts from vector-borne diseases.

4.11.7.2 Potential Public Health and Safety Impacts—Alternative DI-B
Impacts on public health and safety are similar to those described above for Alternative DI-A.

4.11.8 No Project Alternative
Under the No Project Alternative, there would be no changes to public health and safety, so there would be no beneficial or adverse impacts on public health and safety.
4.12 TRANSPORTATION

4.12.1 Introduction
This section is an evaluation of the potential transportation impacts and effects of the revitalization measures and the particular configuration of measures selected for the five opportunity areas. The methods used to assess these impacts and a discussion of the regulatory framework are also provided, along with mitigation to reduce associated impacts, where applicable. Potential transportation impacts associated with the No Project Alternative are also discussed.

4.12.1.1 Regulatory Framework

Federal Regulations
Federally funded transportation facilities may be constructed as part of future LARRMP implementation projects. Possible future federal financial support for the LARRMP might be provided through the Federal Highway Administration (FHWA) and the Federal Transit Authority (FTA). The FHWA and FTA administer financial assistance according to the Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFETEA-LU), which was signed into law in August 2005. SAFETEA-LU authorizes specific dollar amounts for each program. Each year Congress provides an appropriation that funds the programs specified in SAFETEA-LU.

Funds are apportioned and allocated according to formulas and earmarks. Generally, funds are available to designated recipients that must be public bodies, such as states, cities, towns, regional governments, and transit authorities, with the legal authority to receive and dispense federal funds. Through its Local Assistance Program, Caltrans oversees funding from various federal programs and assists local and regional agencies by ensuring that specific program requirements are met, project applications are processed, and projects are delivered in accordance with federal requirements. The FHWA and FTA may conduct oversight reviews to ensure that these requirements are met.

Federal programs related to roads and highways, mass transit, and pedestrian and bicycle facilities include Metropolitan and Statewide Planning (5303, 5304, 5305), Large Urban Cities (5307), Rail and Fixed Guideway Modernization (5309), Bus and Bus Facilities (5309, 5318), the Surface Transportation Program, and Congestion Mitigation and Air Quality Improvement Program.

State Regulations
Coordination with Caltrans would be necessary where construction of future proposed LARRMP revitalization projects would involve highways, regulations, and standards under Caltrans jurisdiction. Where proposed projects would affect state highways and freeways, coordination with Caltrans would require developing traffic management plans and obtaining encroachment permits for work within state ROWs and permits to transport equipment or materials in oversized vehicles.

Local Regulations
Local jurisdictions, including the City of Los Angeles, other cities, and Los Angeles County, have primary responsibility for managing the various roadways that make up the area street network. The Los Angeles County Metropolitan Transportation Authority is responsible for preparing the Congestion Management Program for Los Angeles County. This program, most recently updated in July 2004, addresses the impact of
local growth on the regional transportation system and monitors the operations of the designated Congestion Management Plan roadway network.

City of Los Angeles regulations that would be relevant to future projects proposed to implement the LARRMP include significance levels of construction-related activities, designated truck routes and hours of operation, noise restrictions from construction and excavation activities, and construction clearance requirements. These regulations are discussed below.

LADOT considers construction-related traffic to be an adverse impact, but not significant. This is because such impacts, while they are often inconvenient to local roadway users, are short-term. However, LADOT requires implementation of worksite traffic control plans for construction projects in order to ensure that construction-related impacts are minimized to the extent possible.

The City of Los Angeles allows major and secondary arterials to be used as truck routes. However, some local streets have weight limitations or other restrictions that would limit truck traffic. Typically, trucks would not travel on those streets except to obtain access to a specific project site. The City of Los Angeles policy is to allow trucks to travel in a “reasonable fashion” to and from a project site. The City of Los Angeles reviews each haul route permit application on a project basis and may adjust its general guidelines as appropriate for particular situations.

The City of Los Angeles also restricts the speed limit to 25 mph in construction areas. The city has the following construction clearance requirements:

- Five-foot clearance between a traffic lane and the nearest vertical obstruction, which can be reduced to three feet in certain circumstances with the approval of LADOT;
- Two-foot clearance to a raised curb, which can be reduced to zero in certain situations with the approval of LADOT;
- A minimum of 10-foot-wide traffic lanes must be maintained through construction zones; and
- The minimum taper requirement for channeling traffic flow lanes ranges from 25:1 to 30:1 (length to horizontal distance).

Factors such as speed, type of facility, location, and other geometric characteristics of the specific roadway under construction could affect the actual tapering ratio that would be used for a particular project.

**4.12.1.2 Significance Criteria**

**LADOT Traffic Evaluation Criteria**

LADOT has established “operational” traffic impact criteria for assessing potential impacts of a project on the local street system. These criteria pertain to conditions after the project is completed and is operating. Based on these criteria, a project would have a significant traffic impact if the increase in volume to capacity (V/C) ratio attributed to the project exceeded a specific threshold of increase for the level of service (LOS) of the roadways in the project area. LOS is defined in Table 4.12-1, below.
As depicted in Table 4.12-2, LADOT has established a sliding criteria scale under which the maximum allowable increase in the V/C ratio decreases as the V/C ratio increases.

Using the below criteria, a future project would have a significant impact on traffic at an analyzed location if the location were operating at LOS E or F after the addition of project-operational traffic, and the incremental change in the V/C ratio were greater than or equal to 0.01. Conversely, a project would have a less than significant impact on traffic if it were operating at LOS A or B after the addition of project-operational traffic. Also, a project would not have a significant traffic impact if it were operating at LOS C and the incremental change in the V/C ratio were less than 0.04, or if it were operating at LOS D and the incremental change in the V/C ratio were less than 0.02.

Although the method to calculate V/C ratios and the criteria to identify potential traffic impacts is intended to be used for operation, it can also be applied to construction. However, during construction, LADOT considers such impacts adverse but not significant because the inconvenience for vehicular traffic is temporary. Note that, where determinations of adverse impacts are made, motorists would experience inconveniences that range in intensity from slight to substantial.

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Definition</th>
<th>Description</th>
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<tbody>
<tr>
<td>A</td>
<td>V/C ≤ 0.6</td>
<td>Describes primarily free-flow operations at average travel speeds, usually about 90 percent of the free flow speed for the arterial class. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delay at signalized intersections is minimal.</td>
</tr>
<tr>
<td>B</td>
<td>0.6 ≤ V/C ≤ 0.7</td>
<td>Represents reasonably unimpeded operations at average travel speeds, usually about 70 percent of the free flow speed for the arterial class. The ability to maneuver within the traffic stream is only slightly restricted, and stopped delays are not bothersome.</td>
</tr>
<tr>
<td>C</td>
<td>0.7 ≤ V/C ≤ 0.8</td>
<td>Represents stable operations. However, ability to maneuver and change lanes in mid block locations could be more restricted than in LOS B, and longer queues and/or adverse signal coordination could contribute to lower average travel speeds of about 50 percent of the free flow speed for the arterial class.</td>
</tr>
<tr>
<td>D</td>
<td>0.8 ≤ V/C ≤ 0.9</td>
<td>Borders on a range on which small increases in flow may cause substantial increases in approach delay, and hence, decreases in arterial speed. This could be a result of adverse signal progression, inappropriate signal timing, high volumes, or some combination of these. Average travel speeds are about 40 percent of the free flow speed.</td>
</tr>
<tr>
<td>E</td>
<td>0.9 ≤ V/C ≤ 1.0</td>
<td>Is characterized by significant approach delays and average travel speeds of one-third the free flow speed or lower. Such operations are caused by some combination of adverse progression, high signal density, extensive queuing at critical intersections, and inappropriate signal timing.</td>
</tr>
<tr>
<td>F</td>
<td>V/C ≥ 1.0</td>
<td>Characterizes arterial flow at extremely low speeds below one-third to one-quarter of the free flow speed. Intersection congestion is likely at critical signalized intersections, with high approach delays resulting. Adverse progression is frequently a contributor to this condition.</td>
</tr>
</tbody>
</table>

Source: Transportation Research Board 1985
Table 4.12-2
Maximum Allowable Increase in V/C Ratio per Roadway LOS

<table>
<thead>
<tr>
<th>LOS</th>
<th>V/C Ratio with Addition of Project Traffic</th>
<th>Maximum Allowable Increase in V/C Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOS C</td>
<td>0.701 to 0.800</td>
<td>&lt;0.040</td>
</tr>
<tr>
<td>LOS D</td>
<td>0.801 to 0.900</td>
<td>&lt;0.020</td>
</tr>
<tr>
<td>LOS E or F</td>
<td>0.901 or greater</td>
<td>&lt;0.010</td>
</tr>
</tbody>
</table>

**Los Angeles CEQA Thresholds Guide**

The Draft Los Angeles CEQA Thresholds Guide (City of Los Angeles 1998) presents traffic impact significance thresholds applicable to projects within the jurisdiction of the City of Los Angeles. The thresholds relevant to the LARRMP are discussed below.

**Vehicle Traffic**

A proposed project would normally have a significant street segment capacity impact if project traffic increases the V/C ratio on the street segment operating condition after the addition of project traffic equal to or greater than the following:

\[
\begin{align*}
\text{V/C ratio increase} & \geq 0.080 \text{ if final LOS* is C;} \\
\text{V/C ratio increase} & \geq 0.040 \text{ if final LOS* is D;} \\
\text{V/C ratio increase} & \geq 0.020 \text{ if final LOS* is E or F.}
\end{align*}
\]

*“Final LOS” is defined as projected future conditions, including project conditions, ambient conditions, and related project growth conditions but without project traffic mitigation.*

**Freeway Capacity**

A future project would normally have a significant freeway capacity impact if project traffic were to increase the V/C ratio on a freeway segment or freeway on- or off-ramp of two percent or more capacity (V/C increase \( \geq 0.02 \)), which causes or worsens LOS F conditions (V/C > 1.00).

**Transit System Capacity**

The determination of significance would be made on a case-by-case basis for future projects, considering the projected number of additional transit passengers expected with implementation of the proposed project and available transit capacity.

**Parking**

A future LARRMP project would have a significant impact on parking if the project were to provide less parking than was needed, as determined through a project-specific analysis of parking demand.
4.12 Transportation

4.12.2 Potential Transportation Impacts Associated with LARRMP River Channel Modification and Open Space Development Measures in the River Corridor

4.12.2.1 Types of Potential Impacts
Both adverse and beneficial transportation impacts could result from implementing the two main types of river channel modification measures (nonvelocity-reducing and velocity-reducing) and the suite of open space measures described in Chapter 2. Potential adverse impacts include short-term impacts from construction activities, such as truck traffic and lane closures. Long-term adverse impacts include increased traffic and parking demand due to more visitors to the areas. Green streets can also restrict visibility if the plants are not kept pruned, which in turn could cause an increase in traffic accidents. Acquiring ROW to develop park spaces or terracing along the river could impact arterial streets and railroads. On the beneficial side, green streets that add landscaping and employ traffic calming measures, such as medians, pedestrian bridges, speed humps, raised crosswalks, and textured paving, would generally provide positive impacts. Implementing safe alternative transportation opportunities, such as those for pedestrians and cyclists, would also create positive impacts.

4.12.2.2 Potential Impact Levels
Employing the mitigation actions described in Section 4.12.8, any temporary adverse impacts from future LARRMP projects would be reduced to a less than significant level. Implementing the measures would likely result in additional public service needs related to maintenance of the trails and bikeways. Mitigation to potential long-term impacts could include widening of impacted arterials, signal timing modifications, and addition of designated parking spaces/lots or parking meters.

4.12.3 Canoga Park Opportunity Area
The potential transportation impacts associated with the two alternative configurations of revitalization measures presented in the LARRMP are discussed below.

4.12.3.1 Potential Transportation Impacts—Alternative CP-A

Vehicle Traffic
If ROW acquisition for channel modifications or park development includes local streets, vehicle traffic could be adversely affected. Developing regional greenway connections (north/south streets between Victory and Sherman Way, including Topanga Canyon Boulevard, Owensmouth Avenue, Canoga Avenue, Varie1 Avenue, and De Soto Avenue, and east/west streets between Topanga Canyon and De Soto, including Vanowen Street), arterial green streets (all north/south and east/west roadways that are not considered regional greenway connections) and local green streets (Jordan, Remmet, Milwood, Independence, Vasser, Alabama Avenues, and Variel and Eton Streets) would generally have positive impacts on street safety. This is because traffic calming measures would be used, and neither the number of lanes nor the lane size would decrease. Increased traffic to the area is expected. A traffic study should be conducted at the project level to determine if the project traffic volume creates a significant impact that would require mitigation, as described in Section 4.12.10.

Transit System Capacity
Paseos would provide links to public transportation in the vicinity, such as Metro bus lines, LADOT's Commuter Express and DASH lines, and the Metro Orange Line. Ridership could increase due to the
increased access. Bikeways and trails would also provide additional connections to public transit, potentially increasing demand. Bikeways may also be used as substitutes for public transportation, potentially decreasing demand.

**Parking**
Some street parking may be lost due to the development of parks, paseos, and promenades, but paseos could provide additional parking. Parking demand will likely increase due to increased visitors to the area.

### 4.12.3.2 Potential Transportation Impacts—Alternative CP-B

**Vehicle Traffic**
Impacts are the same as those under Alternative CP-A, except that the terraces on the north and south sides between Canoga and Variel extend an additional 800 feet, and the Riverfront Park would extend from Arroyo Calabasas to Variel. Traffic to the area is expected to increase, especially if a mixed-use village with a major retail and entertainment center is developed. A traffic study should be conducted at the project level to determine if the project traffic volume creates a significant traffic impact, which would require mitigation (see Section 4.12.8).

**Transit System Capacity**
Paseos every 300 feet could provide links to public transportation in the vicinity, such as Metro Bus lines, LADOT's Commuter Express and DASH lines, and the Metro Orange Line. Ridership could increase due to the increased access. Bikeways and trails would provide additional connections to public transit, potentially increasing demand. Bikeways may also be used as substitutes for public transportation, potentially decreasing demand.

**Parking**
Some street parking may be lost due to the development of parks, paseos, and promenades. Parking demand would likely increase due to increased visitors to the area. Parking capacity would need to increase if a mixed-use village is developed with major retail and entertainment centers connected to the Orange Line and Westfield Center.

### 4.12.4 River Glen Opportunity Area
The potential transportation impacts associated with the two alternative configurations of revitalization measures presented in the LARRMP are discussed below.

#### 4.12.4.1 Potential Transportation Impacts—Alternative RG-A

**Vehicle Traffic**
This area would be the focus of an extensive roadway improvement plan, with the intent to create a contiguous roadway network, with expanded ROW to improve functionality and create a continuous north-south connection within the area that does not exist. This alternative also includes reconfiguring the Colorado Street freeway exit to remove the bottleneck at Edenhurst Avenue and creating an at-grade intersection providing north and south movement, where only southern access exists. These improvements would generally provide beneficial impacts, such as increased access and safety.
If ROW acquisition for channel modifications or park development includes local streets, vehicle traffic could be adversely affected. Regional greenway connections (east/west streets between the river and N. Pacific Avenue), Arterial Green Streets (all north/south and east/west roadways not considered regional greenway connections), and local green streets (W. Milford Street extension west, Brazil Street, and Colorado Street) would generally have positive impacts on street safety. This is because traffic calming measures would be used, and neither the number of lanes nor the lane size would decrease. Traffic to the area is expected to increase. A traffic study should be conducted at the project level to determine the level of traffic volume impacts and the appropriate mitigation measures.

**Freeway Capacity**
The river parkway on the river channel terrace of the east bank of the Los Angeles River would be visible from the I-5 freeway, possibly affecting traffic. A traffic study should be conducted at the project level to determine if freeway capacity would be adversely affected by increased visitors to the area.

**Transit System Capacity**
Paseos located every 300 feet could provide access to the Metro bus lines, LADOT’s Commuter Express and DASH lines, and Metrolink, possibly increasing ridership. Metrolink and Union Pacific rail lines along San Fernando Road could be impacted by ROW acquisition.

**Parking**
Some street parking may be lost due to the development of parks, paseos, and promenades. Parking demand would likely increase due to increased visitors to the area.

### 4.12.4.2 Potential Transportation Impacts—Alternative RG-B

**Vehicle Traffic**
Impacts would be the same as those in Alternative RG-A, except that the grade separated crossings to be developed at W. Milford and W. Broadway at San Fernando Road would improve vehicular and pedestrian safety and access to the industrial area and the river.

Also, additional ROW could be acquired for terracing and parks, and the specific traffic impacts should be determined at the project level.

**Freeway Capacity**
The river parkway on the river channel terrace of the east bank of the Los Angeles River would be visible from the I-5 freeway, possibly affecting traffic. A traffic study should be conducted at the project level to determine if freeway capacity would be adversely affected by increased visitors to the area.

**Transit System Capacity**
Paseos could provide access to the Metro bus lines, and LADOT’s Commuter Express and DASH lines, and Metrolink, possibly increasing ridership. Metrolink and Union Pacific rail lines along San Fernando Road could be adversely impacted by ROW acquisition.
Parking
Some street parking may be lost due to the development of parks, paseos, and promenades. Parking demand would likely increase due to increased visitors to the area. A project-specific study should be conducted to determine potential impacts.

4.12.5 Taylor Yard Opportunity Area
The potential transportation impacts associated with the revitalization measures presented in the LARRMP are discussed below.

4.12.5.1 Vehicle Traffic
If ROW acquisition for channel modifications or park development includes local streets, vehicle traffic could be adversely affected. Regional greenway connections (east/west streets between the river and upland residential properties to the east on Fletcher Drive, Eagle Rock Boulevard, Division Street, Pepper Avenue, and Granada Street; east/west streets between the river and western residential properties, including Marsh, Newell, Blimp, and Birkdale Streets; and San Fernando Road, between Fletcher Drive and the Pasadena Freeway), arterial green streets (San Fernando Road, Fletcher Drive, and Riverside Drive), and local green streets (Gilroy, Newell, and Riverside Drive) would generally have positive impacts on street safety. This is because traffic calming measures would be used, and neither the number of lanes nor the lane size would decrease. Increased traffic to the area is expected, so a traffic study should be conducted at the project level to determine project impacts on traffic volume and to identify suitable mitigation.

4.12.5.2 Freeway Capacity
Freeway capacity is not expected to be affected, but, since the opportunity area is adjacent to the I-5 freeway, a traffic study should be conducted at the project level to determine potential traffic impacts and mitigation.

4.12.5.3 Transit System Capacity
A new regional park/open space/habitat area developed between the river and the Metrolink rail corridor would provide increased access to Metrolink, possible increasing ridership. Paseos could also provide increased access to the Metro bus lines and LADOT's Commuter Express and DASH lines. Metrolink and Union Pacific rail lines along San Fernando Road could be adversely impacted by ROW acquisition.

4.12.5.4 Parking
Some street parking may be lost due to the development of parks, paseos, and promenades. Parking demand would likely increase due to increased visitors to the area.

4.12.6 Chinatown-Cornfields Opportunity Area
The potential transportation impacts associated with the revitalization measures presented in the LARRMP are discussed below.

4.12.6.1 Potential Transportation Impacts—Alternative CC-A
Vehicle Traffic
If ROW acquisition for channel modifications or park development includes local streets, vehicle traffic could be adversely affected. Regional greenway connections (east/west streets between Downtown and Lincoln Heights along Spring and Main Streets), arterial green streets (Broadway, Spring, and Main Streets), and local...
green streets (all north/south and east/west primary local roadways within the opportunity area boundaries) would generally have positive impacts on street safety. This is because traffic calming measures would be used, and neither the number of lanes nor the lane size would decrease. Increased traffic to the area is expected, so a traffic study should be conducted at the project level to determine project impacts on traffic volume and to identify suitable mitigation.

**Freeway Capacity**
Freeway capacity is not expected to be affected.

**Transit System Capacity**
Under Alternative CC-A, the west bank of the river channel would be terraced back along the river under the existing rail line to provide for a linear park. Metrolink and Union Pacific rail lines along the river could be adversely impacted by ROW acquisition. Paseos could provide access to the Metro bus lines, the Metro Gold Line, LADOT’s Commuter Express and DASH lines, and Metrolink, possibly increasing ridership.

**Parking**
Some street parking may be lost due to the development of parks, paseos, and promenades. Parking demand would likely increase due to increased visitors to the area.

4.12.6.2 Potential Transportation Impacts—Alternative CC-B

**Vehicle Traffic**
Impacts are the same as those under Alternative CC-A, except that additional ROW could be acquired for terracing and parks, resulting in additional impacts on traffic.

**Freeway Capacity**
Freeway capacity is not expected to be affected.

**Transit System Capacity**
With Alternative CC-B, the rail line would remain as it is, and the channel would be diverted, allowing the creation of a small island that supports habitat and passive recreation. Paseos could provide access to the Metro bus lines, the Metro Gold Line, LADOT’s Commuter Express and DASH lines, and Metrolink, possibly increasing ridership.

**Parking**
Some street parking may be lost due to the development of parks, paseos, and promenades. Parking demand would likely increase due to increased visitors to the area.

4.12.7 Downtown Industrial Opportunity Area
The potential transportation impacts associated with the revitalization measures presented in the LARRMP are discussed below.
4.12.7.1 Potential Transportation Impacts—Alternative DI-A

**Vehicle Traffic**

If ROW acquisition for channel modifications or park development includes local streets, vehicle traffic could be adversely affected. Regional greenway connections (east/west streets between Downtown and Boyle Heights along 1st, 4th, 6th, and 7th Streets), arterial green streets (1st, 4th, 6th, and 7th Streets), and local green streets (all north/south and east/west primary local roadways within the opportunity area boundaries) would generally have positive impacts on street safety since traffic calming measures would be employed and neither the number of lanes nor the lane size would decrease. Grade separated crossings below the rail lines would be developed at selected locations to provide access into the park. Traffic to the area is expected to increase. A traffic study should be conducted at the project level to determine project impacts on traffic volume and to identify suitable mitigation.

**Freeway Capacity**

Freeway capacity is not expected to be affected.

**Transit System Capacity**

Public access would be enhanced by elevating rail on trestles at selected locations. Two rail lines on the east side of the river would be realigned to two innermost storage tracks for the development of a linear park open space along the eastern edge of the river. Paseos could provide access to the Metro bus lines, LADOT’s Commuter Express and DASH lines, and Metrolink, possibly increasing ridership.

**Parking**

Some street parking may be lost due to the development of parks, paseos, and promenades. Parking demand would likely increase due to increased visitors to the area.

4.12.7.2 Potential Transportation Impacts—Alternative DI-B

**Vehicle Traffic**

Impacts are the same as those under Alternative DI-A, except that additional ROW on the east side of the river could be acquired for terracing and parks.

**Freeway Capacity**

Freeway capacity is not expected to be affected.

**Transit System Capacity**

Impacts are the same as those under Alternative DI-A, except that the two rail lines on the east side would be realigned and consolidated with the two through tracks on the west side of the river.

**Parking**

Some street parking may be lost due to the development of parks, paseos, and promenades. Parking demand would likely increase due to increased visitors to the area.
4.12.8 Mitigation Actions
Traffic analyses should be prepared at the project level to evaluate the potential impacts associated with future LARRMP projects within the River Corridor and each of the five opportunity areas. Each traffic analysis should address the short-term effects within public street ROW, including temporary lane closures, driveway blockages, detours, and disruptions to the normal movement of traffic, transit patrons, and pedestrians, as well as the temporary loss of parking. The long-term impacts of operating the facilities should also be assessed by evaluating the amounts of traffic that would be generated by each implementation project under normal operation and, where relevant, the permanent loss of parking.

Depending on the levels of potential impacts identified in the above project-specific studies, mitigation actions may be needed to reduce to a less than significant level the temporary adverse impacts from construction in the vicinity of each construction site and the long-term impacts of operation of the facilities. Mitigation to potential long-term impacts could include widening of impacted arterials, signal timing modifications, and addition of designated parking spaces/ lots or parking meters.

Mitigation actions that can be applied during the construction phase future projects to reduce potential short-term transportation impacts include the following:

- For each construction site, a construction traffic management plan should be prepared and submitted to LADOT for review and approval before any construction work began. This plan should include:
  - the designation of haul routes for construction-related trucks,
  - the location of access to the construction site,
  - any driveway turning movement restrictions,
  - temporary traffic control devices or flagmen,
  - travel time restrictions for construction-related traffic to avoid peak travel periods on selected roadways, and
  - designated staging and parking areas for workers and equipment;

- Where construction would occur within a public street ROW, the following mitigation measures should also be applied:
  - A traffic control plan should be prepared for each construction site and submitted to LADOT for review and approval prior to the start of any construction work. This plan should include the location of any lane closures, restricted hours during which lane closures would not be allowed, local traffic detours (where reasonable alternate routes exist), protective devices and traffic controls (such as barricades, cones, flagmen, lights, warning beacons, temporary left-turn restrictions, temporary traffic signals, warning signs), access to abutting properties, and provisions to maintain emergency access through construction work areas,
  - Available street space should be fully used to minimize lane reductions on affected streets, including eliminating on-street parking where necessary,
  - Left-turn restrictions should be implemented as appropriate on restriped street segments to facilitate the movement of through traffic,
4.12 Transportation

- Travel lanes should be eliminated only when absolutely necessary,
- Alternative pedestrian and bicycle access routes should be provided where sidewalks, crosswalks, or bike lanes would be affected,
- Advance notice should be provided to any affected residents and businesses and property owners in the vicinity of each construction site, and, where existing property access would be reduced, alternative means of access should be identified,
- Emergency service providers (police, fire, ambulance, and paramedic services) should be notified of any lane closures, construction hours, or changes to local access and to identify alternative routes where appropriate, and
- Public transit providers (MTA, LADOT Commuter Express, and Glendale Bee Line) should be notified of any lane closures and construction hours, and temporary bus stops should be established within a reasonable walking distance of any displaced bus stops;

Where future LARRMP projects involve rail crossings and proximity to railroad lines, the following mitigation measures should be applied:

- Construct where practicable, grade separation of major thoroughfares,
- Make safety improvements to existing at-grade highway-rail crossings where there are expected traffic increases, and
- Include appropriate fencing to limit access to railroad right-of-way.

Employing the mitigation actions described above would reduce any temporary adverse impacts from future LARRMP projects to a less than significant level.

4.12.9 No Project Alternative

In general, the Los Angeles region’s transportation system has not kept pace with population and transportation demand. While the population more than doubled from 1960 to 2000, freeway capacity increased by less than 30 percent. Consequently, the region’s congestion has increased dramatically, affecting both personal travel and goods movement. For 2000, the aggregate daily delay due to congestion is estimated to be 2.2 million person hours. If current trends continue, this delay is expected to more than double to 5.2 million person hours of daily delay by 2030. Additionally, highway and main arterial infrastructure is aging and will continue to require more investment in maintenance and preservation in the foreseeable future.

Los Angeles County has invested heavily in transit in the past thirty years. Many of these projects, such as Metro Blue Line, Red Line, and Metrolink, have been completed and now provide meaningful choices to residents. However, even these critical projects did not reduce demand on the arterial and freeway systems. While transit ridership has been increasing significantly since 1995, in large part due to the completion of the aforementioned transit systems, the total transit ridership is only slightly above the ridership in 1985. It is evident that the transit service utilization in the region is not optimal compared to similar regions in the nation.

The Los Angeles region is also facing a potential crisis in goods movement transportation, characterized by dramatic growth in rail and truck traffic, limited transportation funding, and high infrastructure improvement costs. Forecasts of greater regional population and employment, and projections of increasing international
and domestic trade volumes, all lead to worsening congestion and the potential of gridlock on the region’s surface transportation system.

The foregoing transportation trends and challenges in the Los Angeles region are expected to continue into the foreseeable future with or without implementation of the LARRMP.
4.13 Utilities and Infrastructure

4.13.1 Introduction
This section is an evaluation of potential direct and indirect impacts on utilities and infrastructure from the revitalization measures and the particular configuration of measures for the five opportunity areas. In the following sections, utility and infrastructure topics covered include power lines and facilities, natural gas and oil pipelines, telecommunication systems, wastewater, and solid waste systems. Potential mitigation measures to reduce adverse impacts are discussed, along with the No Project Alternative.

4.13.1.1 Regulatory Framework
No federal agencies or regulations are applicable to utilities and service systems associated with the array of LARRMP revitalization measures described in Chapter 2. Applicable California regulations include the Solid Waste Reuse and Recycling Access Act and the Integrated Waste Management Act. The Board of Public Works is the Bureau of Sanitation’s oversight agency. Oversight for energy-related utilities at the state level is under the California Public Utilities Commission and the California Energy Commission. The California Public Utilities Commission and the Federal Energy Regulatory Commission both regulate Southern California Gas operations.

4.13.1.2 Significance Criteria and Evaluation Parameters
Determining the significance of potential impacts on utilities and infrastructure is based on the extent to which the proposed LARRMP revitalization measures would adversely affect utility capacities or system layouts. Implementing a revitalization measure would have significant impact if it resulted in the need for new systems or supplies, or if it substantially altered power, natural gas, communications, local or regional water treatment or distribution facilities, sewer or septic tanks, stormwater drainage, solid waste disposal, or local or regional water supplies. Also, if implementation of a proposed revitalization would use or take up the remaining capacity or capability of systems or eliminate the ability for facilities to accommodate new capacities, these types of impacts would be significant.

Impacts on utility infrastructure would also be significant if facilities were rendered inoperable or if large-scale relocations to new easements or utility corridors were required. Changes in easements or corridors that may accompany future LARRMP revitalization projects or the relocation of relatively short segments of easements or corridors (up to ten miles) would not be significant. Also, short-term impacts would not be significant.

In this programmatic evaluation, direct impacts on utilities and infrastructure are those that typically occurred during construction of any of the LARRMP revitalization measures affecting any utility facility’s capacity and capabilities. Indirect impacts are those causing long-term changes in easements and future utility alignments as a result of implementing a revitalization measure. Short-term or temporary impacts are those associated with construction that would be relevant only during the period of construction, such as temporarily rerouting a pipeline or power line. Long-term impacts are those associated with permanent changes to utility routes or changes in utility capacity.

Levels of potential impacts anticipated from future LARRMP revitalization projects within the River Corridor and the five opportunity areas are forecast as low, moderate, or high. Short-term direct impacts are considered low. Long-term indirect impacts within or immediately adjacent the existing rights-of-way and easements for distances of less than five miles are also considered low. Long-term indirect impacts within or
4.13 Utilities and Infrastructure

immediately adjacent the existing rights-of-way and easements for distances between five and ten miles are considered moderate. Long-term indirect impacts within or immediately adjacent the existing rights-of-way and easements for distances greater than ten miles requiring new easements, or involving relocation of substations, pumping stations, or supply wells are considered high.

4.13.2 Potential Impacts Associated with LARRMP River Channel Modification and Open Space Development Measures in the River Corridor

4.13.2.1 Introduction
This section is a discussion of potential impacts on utilities and infrastructure from the LARRMP measures, as described in Sections 2.2 and 2.3 (river channel modifications and open space development). The LADWP holds power line easements and ROWs along the river within and outside of the city limits of Los Angeles. Easements sometimes coincide with county and Corps flood control easements (RiverProject 2006). The River Corridor serves as a utility corridor for various distances for power transmission lines and as part of the stormwater control system. Since the DWP has responsibility for the City’s water and power facilities, the water facilities (treatment plants, reservoirs, dams, water pipelines, and pump plants) and power facilities (power generation plants, transfer stations, and transmission lines) along the corridor are mostly on DWP property. The river is used for collecting and transporting stormwater. Other utilities either use the River Corridor as an easement or cross the corridor.

4.13.2.2 Types and Levels of Potential Impacts
Both the near-term and long-term changes proposed for the River Corridor involve widening the current concrete channel to varying degrees and modifying the areas immediately adjacent to the banks along both sides. The construction activities would impact the utilities that are immediately adjacent to the River Corridor and those that cross the corridor. Impacts that may result from the open-space developments would also be mostly short term. These impacts are expected to be related to clearing and construction. Some segments of utility and infrastructure elements would have to be permanently relocated.

The two types of river channel modifications and the open space development measures would not result in long-term impact on availability of utilities but would result in short-term construction impacts and movement of segments of existing utility and infrastructure elements. For the river channel modification, the impacts are expected to be higher for those measures where the river-flow velocity would be reduced due to the greater widths of the channel. The greater width of the channel modifications would require more of the utilities along the sides of the channel to be moved. In addition, the bridges across the river that often carry utility lines are more likely to have to be lengthened or replaced.

Discussed below are types and levels of potential impacts on power lines and facilities, natural gas and oil pipelines, telecommunication systems, and wastewater solid waste systems.

Power
Electricity infrastructure within the River Corridor includes a complex extensive system of buried and aboveground power lines, substations, and service buildings. Aboveground power lines exist along either or both banks of the river throughout much of the project area, especially south of the intersection of I-5 and SR-134. Segments of the electric transmission lines that are adjacent to the river banks would have to be moved farther away from the centerline of the river. These segments may end up closer to residential and
commercial buildings along the River Corridor. Segments of the electric transmission lines that are in the immediate area of parks and recreation areas may have to moved to allow for specific design elements, such as playing fields. These segments also may end up closer to residential and commercial building near the parks and recreation facilities. A beneficial impact is the opportunity to plan for the location of the transmission lines as a system in the context of overall land use of the area instead of segment by segment. This system-wide long-term planning for utility line relocation could better ensure that appropriate distances from sensitive areas, (i.e., playgrounds, schools) are maintained.

**Natural Gas/Oil Pipelines**

There are several natural gas and oil pipelines that cross the Los Angeles River either on bridges or in tunnels. The widening of the river channel and changes to the banks would require modifying bridges, requiring pipeline segments that use the bridges to be temporarily relocated. The pipeline segments that cross underneath the river would likely not be affected by the river channel modifications or the open-space development measures.

**Telecommunications**

Telephone lines in urban areas are typically within street ROWs, aboveground on utility poles, and underground in newer areas and would not be affected by the river channel modifications. Segments of any fiber optic cables along either bank of the river might have to be moved farther away from the centerline of the river. Where cables cross the Los Angeles River at bridges, modifying those bridges would require temporarily relocating segments of these cables. Telephone lines and other telecommunication lines in the urban areas are typically within the street ROWs and are not likely to be affected by the open-space development measures unless existing streets are rerouted.

**Wastewater and Solid Waste Systems**

Some of the smaller wastewater collection lines would have to be removed or relocated as facilities are moved. The larger interceptor or collection lines and the associated shafts are outside the immediate area of the river. The lines would be deep and would not be impacted. Care would be taken during construction where the Northeast Interceptor Sewer II will cross beneath the river bed just north of the Glendale Freeway. Stormwater is collected at numerous points in the streets and areas adjacent to the river channel. Potential changes to the transportation of stormwater along the river and along the tributaries near the river are discussed as part of the description of the river channel modifications in Chapter 2. Some of the stormwater collection paths, drains, and underground pipelines in the river channel area would be permanently changed. Most would be temporarily impacted by construction. There would be some permanent changes to stormwater collection points, pipelines, and pathways where the open space development measures involve changes in slope and grading. Most construction impacts would be temporary. Overall, the handling of stormwater would be improved by the proposed measures.

The Solid Resources Citywide Recycling Division promotes the recycling of construction and demolition materials such as concrete and asphalt. While specific amounts of solid waste resulting from future revitalization projects cannot be estimated at this point, the largest portion of solid waste generated from constructing these projects would be concrete and asphalt, and thus would be expected to be recycled, and therefore not adversely impact landfill capacity in the project vicinity.
4.13 Utilities and Infrastructure

4.13.3 Canoga Park Opportunity Area
This section is a discussion of the potential impacts on utilities and infrastructure that might result from the two alternative configurations of revitalization measures considered in the LARRMP for the Canoga Park Opportunity Area. Both configurations of revitalization measures include terraces along the north and south side and riverfront, linear, and pocket parks. The two alternative configurations of measures differ mainly in the widths of the river channel modifications and size of proposed parks.

4.13.3.1 Types and Levels of Potential Impacts—Alternative CP-A
Types and levels of potential impacts on power lines and facilities, natural gas and oil pipelines, telecommunication systems, and wastewater solid waste systems are discussed below. Overall, the utility and infrastructure impacts associated with Alternative CP-A are expected to be low.

Power
There are no high-voltage power lines along the river in the Canoga Park Opportunity Area.

Natural Gas/Oil Pipelines
There are no natural gas or oil supply pipelines along the river in the Canoga Park Opportunity Area.

Telecommunications
Telephone lines and other telecommunication lines in the urban areas are typically within the street ROWs and are not likely to be affected by the activities at the Canoga Park Opportunity Area, unless streets are rerouted.

Wastewater and Solid Waste Systems
Stormwater is collected at numerous points in the streets and areas adjacent to the Canoga Park Opportunity Area. There could be some permanent changes to stormwater collection points, pipelines, and pathways where changes in slope and grading are required. Most impacts would be due to construction and would be temporary.

4.13.3.2 Types and Levels of Potential Impacts—Alternative CP-B
As discussed above for river-channel modification measures (Section 4.13.2.2), impacts typically would be higher for those measures where the width of the channel is greater due to the greater distances that the utility segments would have to be moved. However, since there are no major utility segments along the banks of the river channel within the Canoga Park Opportunity Area, the impacts for Alternative CP-B would be the same as those described above for Alternative CP-A.

4.13.4 River Glen Opportunity Area
This section is a discussion of the potential impacts on utilities and infrastructure from the two alternative configurations of revitalization measures considered in the LARRMP for the River Glen Opportunity Area. The proposed revitalization measures generally include a terraced wetland habitat and extensive roadway improvement, as well as park, green streets, paseos and promenades, pedestrian river crossings, and gateways. The two alternative configurations of measures differ in the actions to be taken with Verdugo Wash and the confluence of the wash with the river. With Alternative RG-A, the Verdugo Wash is expanded to a braided stream and serves as a water quality treatment wetland. With Alternative RG-B, the Verdugo Wash is not
braided into a wetland but is instead realigned to enter the river farther downstream. In addition, with Alternative RG-B, more area is terraced on the east side of the river just south of the confluence.

**4.13.4.1 Types and Levels of Potential Impacts—Alternative RG-A**

Types and levels of potential impacts on power lines and facilities, natural gas and oil pipelines, telecommunication systems, and wastewater solid waste systems are discussed below. Overall, the utility and infrastructure impacts associated with Alternative RG-A are expected to be low.

**Power**

There are aboveground power lines along either or both banks of the river throughout the opportunity area. At the confluence of Verdugo Wash and the river, the power lines are on the opposite side of the river and would not be affected by the proposed measures.

**Natural Gas/Oil Pipelines**

There are no natural gas or oil supply pipelines along the river in the River Glen Opportunity Area.

**Telecommunications**

Telephone lines and other telecommunication lines in the urban areas are typically within the street ROWs and are not likely to be affected by the activities at the River Glen Opportunity Area, unless existing streets are rerouted.

**Wastewater and Solid Waste Systems**

Stormwater is collected at numerous points in the streets and areas adjacent to the River Glen Opportunity Area. Permanent changes to stormwater collection points, pipelines, and pathways would be in the vicinity of the confluence of Verdugo Wash and the river and where changes in slope and grading are required. Most impacts would be from construction and would be temporary.

**4.13.4.2 Types and Levels of Potential Impacts—Alternative RG-B**

As discussed above for river-channel modification measures (Section 4.13.2.2), impacts would typically be higher for those measures where the width of the channel is greater due to the greater distances that the utility segments would have to be moved. However, since there are no major utility segments along the banks of the river channel within the River Glen Opportunity Area, the impacts for Alternative RG-B are the same as those described above for Alternative RG-A.

**4.13.5 Taylor Yard Opportunity Area**

**4.13.5.1 Introduction**

This section is a discussion of the potential impacts on utilities and infrastructure that might result from the configuration of revitalization measures proposed in the LARRMP for the Taylor Yard Opportunity Area. The proposed revitalization measures include terraces along the east bank and intermittent habitat areas along the channel bottom. Open space developments include parks, green streets, paseos and promenades, bikeways and trails, and pedestrians river crossings.
4.13.5.2 Types and Levels of Potential Impacts

Types and levels of potential impacts on power lines and facilities, natural gas and oil pipelines, telecommunication systems, and wastewater solid waste systems are discussed below. Overall, the utility and infrastructure impacts associated with the proposed configuration of measures are expected to be moderate and below significant levels.

**Power**

There are aboveground power lines along the northeast bank of the river, between the bank and the rail lines. These power line segments would have to be moved permanently to allow for the construction of the terraces. These segments may end up closer to residential and commercial buildings near the parks and recreation facilities. The local power lines serving the industrial buildings on the east side of the river would be removed.

**Natural Gas/Oil Pipelines**

A 10-inch natural gas pipeline runs along the railroad alignment in the southern part of the opportunity area. Although it is not being used, a segment might need to be moved, depending on the final design of the terraces.

**Telecommunications**

Five telecommunication lines run along the western rail line (Parks and Recreation 2005). Segments might have to be moved, depending on the design of the revitalization measures on the west side of the river. The local telecommunication lines serving the industrial buildings on the east side of the river would be removed. Other telephone lines and other telecommunication lines in the area are typically within the street ROWs and are not likely to be affected by the activities at the Taylor Yard Opportunity Area unless streets are rerouted.

**Wastewater and Solid Waste**

There are 15-, 21-, and 24-inch-diameter cement pipe sewer lines running across the northern third of the opportunity area and beneath the river, connecting to the sewer line on the west side. These sewer lines would not have to be moved for the implementation of the measures at the Taylor Yard Opportunity Area.

Stormwater is collected at numerous points in the streets and areas adjacent to the Taylor Yard Opportunity Area. Some permanent changes to stormwater collection points, pipelines, and pathways could be expected where changes in slope and grading are required. Most impacts would be due to construction and would be temporary.

4.13.6 Chinatown-Cornfields Opportunity Area

This section is a discussion of the potential impacts on utilities and infrastructure from the two alternative configurations of revitalization measures considered in the LARRMP for the Chinatown-Cornfields Opportunity Area. Under both alternatives, a terraced linear park would be built along the west bank, and public access with an urban promenade would be developed along the east bank. Open space developments include the Los Angeles State Historic Park, several linear parks, green streets, paseos and promenades, bikeways and trails, and pedestrian river crossings. The two alternative configurations of measures differ in the actions to be taken on the west side of the river channel. Under Alternative CC-A, the west bank of the river is terraced back under the rail line to provide for a linear park. Under Alternative CC-B, a channel diversion would be created on the west bank along with a small island.
4.13.6.1 Types and Levels of Potential Impacts—Alternative CC-A

Types and levels of potential impacts on power lines and facilities, natural gas and oil pipelines, telecommunication systems, and wastewater solid waste systems are discussed below. Overall, the utility and infrastructure impacts associated with Alternative CC-A are expected to be low.

**Power**

There are high-voltage power lines along both banks of the river in the opportunity area. It is unlikely that the power lines on the east bank would have to be moved. On the east side, segments might have to be moved, but under this plan the existing LADWP electrical distribution vault would not be relocated, so the power lines might not be moved very far. The exact distance would have to be determined in project engineering and environmental documents.

**Natural Gas/Oil Pipelines**

There is a 20-inch pressurized oil pipeline along the northern edge of the opportunity area (CDPR 2005), but it is not likely that it would have to be moved.

**Telecommunications**

There are underground fiber optic telecommunication easements along the northern perimeter of the opportunity area (CDPR 2005). Depending on the project-specific details of the terracing at this location, the fiber optic cables may have to be moved. Telephone and other telecommunication lines in the urban areas are typically located within the street ROWs and are not likely to be affected by the activities at the opportunity area, unless streets are rerouted.

**Wastewater and Solid Waste**

There is a storm drain sewer line and easement along North Spring Street at the southwestern end of the park. Stormwater is collected at numerous points in the streets and areas adjacent to the opportunity area. There could be some permanent changes to stormwater collection points, pipelines, and pathways, where changes in slope and grading are required. Most impacts would be due to construction and would be temporary.

4.13.6.2 Types and Levels of Potential Impacts—Alternative CC-B

As described above for the west bank modification measures, the impacts are expected to be higher for creating a diversion channel. Overall, the utility and infrastructure impacts associated with Alternative CC-B would be medium to high (but less than significant) due to the relocation of the LADWP electrical distribution vault.

**Power**

The power lines on the west bank would have to be moved a greater distance to the west. The conceptual figures in Chapter 2 show the channel at the location of the existing LADWP electrical distribution vault. The distribution vault would have to be relocated to the west or south. The local power lines that serve the industrial buildings on the west side of the river also would be removed, along with those buildings removed for the diversion channel.
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**Telecommunications**
There are underground fiber optic telecommunication easements along the northern perimeter of the opportunity area (CDPR 2005). Depending on the project specific details of the terracing at this location, the fiber optic cables are more likely to have to be moved. The local telecommunication lines serving the industrial buildings on the west side of the river would be removed, along with those buildings removed for the diversion channel.

4.13.7 Downtown Industrial Opportunity Area
This section is a discussion of the potential impacts on utilities and infrastructure that might result from the two alternative configurations of revitalization measures considered in the LARRMP for the Downtown Industrial Opportunity Area. Both alternative configurations of measures include terraces along the east side riverfront, linear, and small pocket parks, green street connections, and an urban promenade. The rail line would be relocated to create additional parkland adjacent to the river. The river modifications for the two alternative configurations differ mainly in the width of the terracing and where the existing rail line is relocated. With Alternative DI-A, the river channel is terraced in three locations on the east side. With Alternative DI-B the east side would be terraced to a greater degree to allow for water quality treatment.

4.13.7.1 Types and Levels of Potential Impacts—Alternative DI-A
Types and levels of potential impacts on power lines and facilities, natural gas and oil pipelines, telecommunication systems, wastewater solid waste systems are discussed below. Overall, the utility and infrastructure impacts associated with Alternative DI-A are expected to be low.

**Power**
The LADWP has utility easements along both sides of the river (LARMP-26). There are aboveground power lines along both banks of the river throughout the opportunity area, and they would not have to moved on the west side. On the east side segments of the power lines might have to be moved or the distance between towers might need to be adjusted, depending on the location and width of the proposed terracing.

**Natural Gas/Oil Pipelines**
There are no natural gas or oil supply pipelines along the river in the Downtown Industrial Opportunity Area.

**Telecommunications**
Telephone lines and other telecommunication lines in the urban areas are typically within the street ROWs and are not likely to be affected by the activities at the Downtown Industrial Opportunity Area.

**Wastewater and Solid Waste**
Stormwater is collected at numerous points in the streets and areas adjacent to the opportunity area. Some permanent changes to stormwater collection points, pipelines, and pathways could be expected where changes in slope and grading are required. Most impacts would be due to construction and would be temporary.

4.13.7.2 Types and Levels of Potential Impacts—Alternative DI-B
The impacts for this alternative are essentially the same as those for Alternative DI-A above. Overall, the utility and infrastructure impacts associated with Alternative DI-B would be low.
4.13.8 Mitigation Actions/Best Management Practices
The temporary relocation of segments of transmission lines, telecommunications lines, and pipelines should be done in a manner to limit any interruptions in service. The interruptions should be limited to the time needed to disconnect from the current lines and switch to the temporary lines.

4.13.9 No Project Alternative
The utilities in the River Corridor and in the opportunity areas would require ongoing maintenance and upgrading as population grows and demand increases. The utility segments would likely all be temporarily affected by construction during the next fifty years, especially those associated with the bridges. Segments could be moved or relocated as current facilities age and are potentially replaced by newer technologies, such as fiber optics.
4.14 Socioeconomics

4.14.1 Introduction
This section is an evaluation of potential direct and indirect socioeconomic impacts from the revitalization measures and the particular configuration of measures for the five opportunity areas. Mitigation measures that could be applied to reduce adverse socioeconomic impacts are discussed, along with the No Project Alternative.

4.14.1.1 Regulatory Framework
Potential socioeconomic resources of particular interest for this PEIR/PEIS include housing, population, employment, and public services. In the study area, these resources are regulated to varying extent by federal, state, and local government agencies. The relevant agencies and their guidelines and regulations are discussed below.

Federal
Federal Executive Order 12898 (Environmental Justice) is discussed in Section 4.15, Environmental Justice. No other federal laws, regulations, or policies would be relevant to population, housing, employment, or public services resources and the LARRMP revitalization measures.

State
No state laws, regulations, or policies are specifically relevant to population, housing, and employment or to police, fire protection, and public library services and the LARRMP revitalization measures. State school districts are regulated by the California Education Code and the State Board of Education, but services are managed at the local level.

Local
The City of Los Angeles General Plan, Housing Element includes the City’s policies of general relevance to housing issues and the LARRMP (City of Los Angeles 2001), including Policy 2.5.2 (Discourage development, demolition, and conversions that contribute to the loss of affordable housing and encourage one-for-one replacement [based on bedroom count] of demolished affordable units). Policy 2.3.2 states that the City will “…allow for the provision of sufficient public infrastructure and services to support the projected needs of the population and businesses of the City within the patterns of use established in the community plans.” Public services such as libraries, police, and fire protection generally are regulated by local agencies (the policies and agencies of the Cities of Los Angeles, Burbank, and Glendale). Local school districts are responsible for providing public education services within their boundaries.

4.14.1.2 Significance Criteria
The Draft Los Angeles CEQA Thresholds Guide (City of Los Angeles 1998c) identifies measures that have a significant impact on population, housing, employment, and public services as those that would result in the following:

- Cause local populations to exceed official population projections;
- Cause growth (that is, new housing or employment generators) or accelerate development in an undeveloped area that exceeds projected/planned levels for the year of project occupancy/builout;
4.14 Socioeconomics

- Cause a substantial number of residents, businesses, or employees to be displaced as a result of property acquisitions (includes displacement of affordable housing); and
- Create a need for new or altered government services related to police, fire protection, schools, and libraries.

4.14.2 Potential Impacts Associated with LARRMP Channel Modification and Open Space Development Measures in the River Corridor

4.14.2.1 River Channel Modification Measures
The proposed river channel modification measures presented in Chapter 2 include a mix of modifications to both channel geometry and to the level of vegetation within the channel. In some cases, modification measures require expanding the river ROW, diverting channels, and reconfiguring tributary confluences.

Future implementation of river channel modifications would not result in significant impacts from excessive population growth, substantial urban growth, acceleration of development, nor the need for new or altered public services related to police, fire protection, schools, and libraries in the River Corridor and vicinity.

For those channel modification measures that require expanding the river ROW, there is a potential for impacts on housing and employment, depending on the type of land use that would be displaced. Future LARRMP projects involving revitalization measures would require analyzing site-specific housing and employment impacts, including identifying mitigation actions, if applicable.

4.14.2.2 Open Space Development Measures
In Chapter 2 is a description of the potential LARRMP open space development measures in the River Corridor evaluated in this PEIR/PEIS. The categories of open space development measures are as follows:

- **Parks:** LARRMP revitalization measures in this category include riverfront parks, linear parks, pocket parks, and recreation fields. Implementing park development measures could increase future population and employment in the River Corridor by attracting more people to live and work there. Future park development may also displace commercial, industrial, and residential land uses and result in requirements for new public services, such as police protection at new parklands and facilities. Any displacement of existing commercial and industrial businesses could result in high and potentially significant impacts associated with lost jobs. Any potential adverse impacts of park development measures would require analyzing site-specific impacts, including identifying and evaluating mitigation actions, if applicable, to reduce potential impacts to less than significant levels.

- **Green Streets:** Future implementation of the green streets measures is not expected to result in socioeconomic impacts that would exceed the thresholds identified in the screening criteria.

- **Paseos and Promenades:** Future implementation of paseos, paseo promenades, and promenades in the River Corridor could increase future population and employment in the River Corridor by attracting more people to live, work, and visit/recreate/shop there. Developing paseo and promenade measures may also displace commercial, industrial, and residential land uses. Any displacement of existing commercial and industrial businesses could result in high and potentially significant impacts associated with lost jobs. Implementing the measures would likely result in additional public service needs related to police and fire protection. Any potential adverse impacts of future paseo and
promenade measures would require analyzing site-specific socioeconomic impacts, including identifying and evaluating mitigation actions, if applicable, to reduce potential impacts to less than significant levels.

- **Trails and Bikeways:** Future implementation of trails and bikeway measures in the River Corridor could increase future population and employment in the River Corridor by attracting more people to live, work, and recreate in the area. Implementing the measures would likely result in additional public service needs related to police protection and emergency medical treatment. Any potential adverse impacts of future trails and bikeways measures would require analyzing site-specific socioeconomic impacts, including identifying and evaluating mitigation actions, if applicable.

- **Pedestrian River Crossings:** Future implementation of pedestrian river crossing measures in the River Corridor would not result in socioeconomic impacts that would exceed the thresholds identified in the screening criteria.

- **River Loops:** Future implementation of river loop measures in the River Corridor would not impact socioeconomic resources. Associated changes in land use from implementing open space development measures and reinvestment measures within river loops could result in impacts on socioeconomic resources and conditions.

- **Gateways:** Future implementation of gateway measures in the River Corridor would not have socioeconomic impacts that would exceed the thresholds identified in the screening criteria.

- **Water Quality and Habitat:** Future implementation of water quality and habitat measures in the River Corridor would not result in socioeconomic impacts that would exceed the thresholds identified in the screening criteria.

### 4.14.2.3 Potential Impact Levels

As future LARRMP river channel and open space modification projects are identified in the River Corridor, site-specific analyses would be required to assess the significance of any impacts on socioeconomic resources, including population, housing, employment, and public services. Primary factors that drive the level of socioeconomic impact of future projects include the extent of displaced residences and businesses, the level of induced demand for housing, the level of change in need for public services, and changes in employment opportunities that would be expected to result from implementation of LARRMP revitalization measures. Any displacement of existing commercial and industrial businesses could result in high to significant impacts associated with lost jobs.

The general expected level of impact for various revitalization measures are summarized as follows:

- **Potential for High and Potentially Significant Impact:** Riverfront parks, promenades, paseos, and paseo promenades;

- **Potential for Moderate to High Impact:** Linear parks, pocket parks, bikeways; and

- **Potential for Low to Moderate Impact:** Trails, river channel modifications, gateways, and green streets.

### 4.14.2.4 Mitigation Actions

Site-specific studies are required to assess the significance of any adverse socioeconomic impacts that could result from implementing future LARRMP revitalization projects. These studies should address potential
direct, indirect, and cumulative impacts. The findings of these studies are required prior to identifying appropriate mitigation actions for these future projects, to reduce potential impacts to less than significant levels. Appropriate mitigation actions will vary depending on the type of resource impacted and the extent of the impact. Per the Draft Los Angeles CEQA Thresholds Guide, population and housing growth are not considered significant effects on the environment. Secondary or indirect impacts, such as increased traffic or noise, may be significant and may be physical changes caused by population and housing growth. Thus, mitigating these secondary impacts may also reduce potential adverse impacts from population and housing growth. Socioeconomic impacts requiring mitigation would be associated with population and housing displacement and need for new public services. Generally, the types of socioeconomic mitigation measures to be identified include the following:

- Avoiding socioeconomic impacts altogether by not taking a certain action or parts of an action;
- Minimizing socioeconomic impacts by limiting the degree or magnitude of the action and its implementation;
- Rectifying the socioeconomic impact by repairing, rehabilitating, or restoring the impacted land use (for example, providing on-site recreational amenities where impacts occur);
- Reducing or eliminating the socioeconomic impact over time by preservation and maintenance operations;
- Compensating for the socioeconomic impact by replacing or providing substitute resources;
- Exceeding the statutory requirements for relocation assistance; and
- Increasing the number of housing units affordable to lower income households.

4.14.3 Canoga Park Opportunity Area

4.14.3.1 Introduction

The two alternative configurations of measures considered for the Canoga Park Opportunity Area are Alternative CP-A and Alternative CP-B. Each alternative includes River Channel modification measures, open space development measures, and reinvestment measures. The two alternatives are summarized below and are described in detail in Chapter 2.

**Alternative CP-A**

**River Channel Modification Measures**

Alternative CP-A involves proposed river channel terracing on the north bank, including a 15-foot-wide walkway and water quality treatment terraces within the river ROW. On the south side of the river, additional river ROW acquisition is proposed to create treatment terraces and a riverfront park. The channel bottom will be modified to develop intermittent habitat areas throughout the opportunity area.

**Open Space Development Measures**

Alternative CP-A includes a proposed riverfront park on the south side of the river, a linear park on the north side of the river, and a pocket park near the Los Angeles River confluence. Regional Greenway connections, arterial green streets, and local green streets are proposed in locations throughout the opportunity area. One paseo on the north side or the river and promenades running along the river on both banks are proposed.
The alternative also includes proposed bikeways and trails, pedestrian river crossings, regional and neighborhood gateways, and water quality enhancement measures.

**Reinvestment Measures**
Land acquisition for public use would be encouraged for parcels that have near-term potential to be developed as open space measures. Reinvestment would rely on responses of private property owners to revitalization improvements and opportunities.

**Alternative CP-B**

**River Channel Modification Measures**
These are the same as those for Alternative CP-A, except the terrace on north and south sides between Canoga and Variel is extended by 800 feet and Arroyo Calabasas is daylighted to provide an urban water feature within the new riverfront park.

**Open Space Development Measures**
These are the same as those for Alternative CP-A, except the riverfront park is extended to the southwest, three additional paseos are included, a paseo promenade is included, and an additional neighborhood gateway is added.

**Reinvestment Measures**
The level and intensity of reinvestment measures would be substantially increased over Alternative CP-A, including the following:

- Rebuilding the river within this opportunity Area from the confluence of Bell Creek and Arroyo Calabasas to demonstrate the potential of collaborative measures;
- Investing in river revitalization, spurring collaborative private investment;
- Increasing density and influencing land use mix, based on LARRMP revitalization goals and objectives;
- Developing a mixed-use village within the Canoga Park Opportunity Area with a major retail and entertainment center that is connected to the Orange Line and Westfield Center;
- Developing open space greenway connections and internal greenways to support the mixed-use village concept; and
- Protecting single family homes in the area.

**4.14.3.2 Potential Impacts and Mitigation Actions—Alternative CP-A**
LARRMP revitalization measures included in Alternative CP-A that could result in socioeconomic impacts in this opportunity area include river channel modification measures, select open space development measures (parks, paseos, paseo promenades, promenades, and trails and bikeways), and reinvestment measures. Potential impacts and mitigation recommendations are discussed in the following paragraphs.
River Channel Modification Measures
The proposed acquisition of additional Los Angeles River Channel ROW on the south side of the river for channel terracing and creation of the proposed riverfront park could result in adverse socioeconomic impacts by displacing commercial and industrial development and public facilities. Any adverse impacts of revitalization measures on commercial business, industry, and employment would require site-specific analysis, including identifying and evaluating mitigation actions, if applicable.

Open Space Development Measures

Parks
Implementing the proposed riverfront park, the proposed linear park on the MTA ROW, the proposed linear park at Bassett Street, and the proposed pocket park could increase future population and employment in the River Corridor by attracting more people to live and work there. Future park development could also displace commercial/industrial land use and public facilities and result in requirements for new public services, such as police protection at new parklands. Any potential adverse impacts of park development measures would require analyzing site-specific impacts, including identifying and evaluating mitigation actions, if applicable.

Paseos and Promenades
Implementing the proposed paseo and the proposed promenades could increase future population and employment in the River Corridor by attracting more people to live, work, and visit/recreate/shop in the area. Developing paseo and promenade measures could also displace commercial, industrial and residential land uses. Implementing the measures would likely result in additional public service needs related to police and fire protection. Any potential adverse impacts of future paseo and promenade measures would require analyzing site-specific impacts, including identifying and evaluating mitigation actions, if applicable.

Bikeways and Trails
Future implementation of trails and bikeways in the opportunity area could increase future population and employment in the River Corridor by attracting more people to live, work, and recreate in the area. Implementing the measures would likely result in additional needs for police protection and emergency medical treatment. Any potential adverse impacts of future trails and bikeways would require analysis of site-specific impacts, including identifying and evaluating mitigation actions, if applicable.

Reinvestment Measures
Acquisition of lands for public uses, such as converting the land to use as open space, could displace commercial, industrial, and residential land uses in the opportunity area. Implementing the measures could also result in additional needs for emergency medical services, police, and fire protection. If residential development is included in mixed-use design, then there could be additional socioeconomic impacts may from induced demand for schools and library public services. Any potential adverse impacts of future reinvestment measures would require analyzing site-specific impacts, including identifying and evaluating mitigation actions, if applicable.

4.14.3.3 Potential Impacts and Mitigation Actions—Alternative CP-B
The potential socioeconomic impacts of the revitalization measures included in Alternative CP-B are the same as those for Alternative CP-A, except where noted below.
River Channel Modification Measures
Greater socioeconomic impacts are expected than under Alternative CP-A because of the added feature of daylighting Arroyo Calabasas, which runs under the north parking lot of Topanga Plaza Shopping Center. Assuming the loss of parking is mitigated, the primary socioeconomic impact would be from any potential increase in demand for new public services (police, fire protection, emergency medical services).

Open Space Development Measures

Parks
Socioeconomic impacts associated with expanding the riverfront park westward to Arroyo Calabasas are addressed above (see river channel modification measures). Expanding the park eastward to Variel Avenue would require displacing multifamily residential land use. Any impact on or potential displacement of residences will require site-specific socioeconomic impact analysis and identification of mitigation measures, if applicable. This analysis should address any potential impacts and cumulative impacts associated with effects on affordable housing in the River Corridor. There are approximately 12 affordable housing developments in the opportunity area that provide over 585 affordable residences.

Paseos and Promenades
These measures have more potential for land use impact than with the CP-A as there are four proposed paseos and one paseo promenade proposed for Alternative CP-B and only one paseo proposed for Alternative CP-A. The types of impact are the same as those described for CP-A.

Reinvestment Measures
The more proactive focus on reinvestment with Alternative CP-B, including proposed changes to density and land use mix and development of the proposed mixed-use village, could impact local populations, displace existing land uses, and result in the need for new or altered government services. If residential development is included in mixed-use design, then additional impacts may occur associated with induced demand for schools and library public services. The reinvestment measures would result in beneficial socioeconomic impacts related to increased business and employment opportunities. Site-specific analysis of potential socioeconomic impacts should be completed before the measures are implemented, including identifying mitigation actions, if applicable.

4.14.3.4 Evaluation of Impact Levels—Alternatives CP-A and CP-B
Future implementation of Alternative CP-A would result in high and potentially significant adverse socioeconomic impacts. The greatest adverse socioeconomic impacts would be from commercial and industrial displacement for creation of parks and any associated job losses, open space, and an expanded river ROW and induced demand for new or altered government services. The alternative would also result in beneficial socioeconomic impacts associated with economic revitalization and growth in employment opportunities.

Future implementation of Alternative CP-B would have high and potentially significant adverse socioeconomic impacts. The potential displacement associated with open space developments would be greater due to the increased number and footprint of proposed parks, paseos, and paseo promenades, which would require relocating some multifamily residential land use currently provided in the opportunity area. The
increased park area and number of paseos could incrementally add to the need for new or altered government services.

Alternative CP-B would also result in a higher level of beneficial socioeconomic impacts associated with economic revitalization and growth in employment opportunities than under the CP-A. The proposed civic focus on reinvestment in the opportunity area could have high levels of beneficial socioeconomic impacts in the area related to development of new employment and income opportunities. Reinvestment opportunities include increasing density and land use mix, developing a mixed-use village within the Canoga Park Opportunity Area, and developing open space greenway connections and internal greenways to support the mixed-use village concept.

Both alternatives are expected to result in net beneficial impacts on socioeconomics in the opportunity area if mitigation measures appropriate for reducing potential adverse impacts to less than significant levels are implemented.

4.14.4 River Glen Opportunity Area

4.14.4.1 Introduction
The two alternative configurations of measures considered for the River Glen Opportunity Area are Alternative RG-A and Alternative RG-B. Each alternative includes river channel modification measures, open space development measures, and reinvestment measures. The two alternatives are summarized below and are described in detail in Chapter 2.

Alternative RG-A

River Channel Modification Measures
Alternative RG-A involves modifying the Verdugo Wash confluence to provide a water quality treatment wetland, terracing the river channel east bank, and modifying the channel bottom to develop intermittent habitat areas.

Open Space Development Measures
Alternative RG-A includes developing a continuous linear terraced park on the east bank of the river, developing green streets at locations throughout the opportunity area, and developing two paseos on the east side of the river and a promenade along the east bank of the river throughout the opportunity area. Additional open space measures include developing bikeways and trails, pedestrian river crossings, regional and neighborhood gateways, and water quality/habitat features.

Reinvestment Measures
Currently underserved by its roadway network, this light industrial area would be the focus of an extensive roadway improvement plan, with the intent to create a contiguous roadway network with expanded ROW to improve functionality and create a continuous north-south connection within the area. This revitalization alternative also includes reconfiguring the Colorado Street freeway exit to remove the jug-handle at Edenhurst Avenue and creating an at-grade intersection providing north and south movement, where only southern access exists.
Alternative RG-B

**River Channel Modification Measures**
These are the same as those for Alternative RG-A, except Verdugo Wash would be realigned to enter the Los Angeles River farther downstream, creating a small island of habitat, additional right-of-way would be acquired along the east bank, and the river channel would be terraced to provide a series of street end parks and water quality treatment terraces.

**Open Space Development Measures**
These are the same as those for Alternative RG-A, except the continuous linear terraced park would be developed with greater emphasis on water quality enhancement measures, the proposed paseos would be longer, and there would be an additional regional gateway and an additional neighborhood gateway. Also, the water quality/habitat features would be expanded by island creation at the Verdugo Wash confluence and a riverine habitat area east of the Golden State Freeway would be developed to bring the river into Griffith Park south of the Griffith Park Zoo.

**Reinvestment Measures**
These are the same as those for Alternative RG-A, except that grade-separated crossings would be developed at W. Milford and W. Broadway at San Fernando Road to provide safer vehicular and pedestrian access to the industrial area and the river. Also, existing land uses would be redeveloped to capture economic development opportunities created by ongoing river revitalization.

4.14.4.2 Potential Impacts and Mitigation Actions—Alternative RG-A
LARRMP revitalization measures included in Alternative RG-A that could have socioeconomic impacts in this opportunity area include river channel modification measures, some open space development measures (parks, paseos, promenades, and trails and bikeways), and reinvestment measures.

**River Channel Modification Measures**
Expanding the confluence function to provide the proposed regional water quality treatment wetland could result in socioeconomic impacts by displacing industrial land uses in the implementation area. Any potential adverse impacts on industry and employment would require site-specific analysis, including identifying and evaluating mitigation actions, if applicable.

**Open Space Development Measures**

**Parks**
Developing the linear park could increase future population and employment in the River Corridor by attracting more people to live and work in the area. Future park development may also displace industrial and public facilities land use and result in requirements for new public services, such as police protection at new parklands. Any potential adverse impacts of park development measures would require analyzing site-specific impacts, including identifying and evaluating mitigation actions, if applicable.

**Paseos and Promenades**
Implementing the proposed paseo and promenades could increase future population and employment in the River Corridor by attracting more people to live, work, visit, recreate, and shop in the area. Developing paseo
and promenade measures may also displace industrial land uses. Implementing the measures would likely result in additional public service needs for police and fire protection. Any potential adverse impacts of future paseo and promenade measures would require analyzing site-specific impacts, including identifying and evaluating mitigation actions, if applicable.

**Bikeways and Trails**
Future implementation of trails and bikeway measures in the opportunity area could increase future population and employment in the River Corridor by attracting more people to live, work, and recreate in the area. Implementing the measures would likely result in additional public service needs for police protection and emergency medical treatment. Any potential adverse impacts of future trails and bikeways measures would require analyzing site-specific impacts, including identifying and evaluating mitigation actions, if applicable.

**4.14.4.3 Potential Impacts and Mitigation Actions—Alternative RG-B**
The potential socioeconomic impacts of the LARRMP revitalization measures included in Alternative RG-B are the same as those for Alternative RG-A, except where noted below.

**River Channel Modification Measures**
The land acquisition for additional river terracing and street end parks and water quality treatment terraces would require additional displacement of lands in industrial use. Before the measures are implemented, the socioeconomic impact of the displacement should be analyzed, including identifying mitigation measures, if applicable.

**Reinvestment Measures**
The proposed land use redevelopment could result in proposed changes to current industrial and public facilities development in the opportunity area. Before the measures are implemented, the socioeconomic impact of any resulting business and industry displacement should be analyzed, including identifying mitigation measures, if applicable. If residential development is included in the proposed land use redevelopment design, then additional impacts may occur from an induced demand for schools and library public services, which would require additional socioeconomic impact analysis.

**4.14.4.4 Evaluation of Impact Levels—Alternatives RG-A and RG-B**
Future implementation of Alternative RG-A would result in high and potentially significant adverse socioeconomic impacts. These impacts would come mostly by displacing industrial uses with river channel modifications at the Verdugo Wash confluence, open space development measures (primarily the linear park, paseos, and promenades) that are proposed on lands in other industrial and public facilities uses, and induced demand for new or altered public services. Any displacement of existing commercial and industrial businesses could result in high and potentially significant impacts associated with lost jobs. The alternative would also have beneficial socioeconomic impacts from economic revitalization and growth in employment opportunities.

Future implementation of Alternative RG-B would have higher adverse socioeconomic impacts than Alternative RG-A, although the general impact level would still be considered high and potentially significant. The higher impacts with Alternative RG-B relative to Alternative RG-A are a result of additional displacement of industrial uses to accommodate the proposed expanded river terracing. The alternative would
also result in a higher level of beneficial socioeconomic impacts from economic revitalization and growth in employment opportunities, stemming from the focus on reinvestment measures for land use redevelopment.

Both alternatives are expected to result in net beneficial socioeconomic impacts in the opportunity area if mitigation measures appropriate for reducing potential adverse impacts to less than significant levels are implemented.

### 4.14.5 Taylor Yard Opportunity Area

#### 4.14.5.1 Introduction
There is one configuration of measures considered for the Taylor Yard Opportunity Area. The proposed configuration includes River Channel modification measures, open space development measures, and reinvestment measures, which are summarized below and described in detail in Chapter 2.

**River Channel Modification Measures**
The project involves terracing the east bank of the river channel for approximately one mile within the opportunity area to provide for water quality treatment terraces. Additionally, the channel bottom would be modified to develop intermittent habitat areas.

**Open Space Development Measures**
The project would include developing a regional park on the land parcel between the river and the Metrolink/Rail Corridor to the southwest of the new state park, a continuous linear park along the western edge of the river between Fletcher Drive and the Pasadena Freeway, seven pocket parks on the west side of the river, green street improvements at locations throughout the opportunity area, ten paseos (four on the east side of the river and six on the west side), and a promenade along the east bank, from Glendale Highway to Granda Street. Additional open space development measures in this alternative include bikeways and trails, pedestrian river crossings, a series of regional and neighborhood gateways, and water quality/habitat enhancement measures.

Other Taylor Yard planning efforts would establish land use on the east bank of the river. Emphasis is placed on green connections between the east and west banks of the river and on parks and neighborhoods. Furthermore, market pressure would gradually cause replacement of west bank small industry with mixed-use development, in keeping with the river revitalization theme.

#### 4.14.5.2 Potential Impacts and Mitigation Actions
LARRMP revitalization measures included in the proposed configuration that could result in socioeconomic impacts in this opportunity area include certain Open Space Development Measures (parks, paseos, promenades, and trails and bikeways). Potential impacts associated with these measures and mitigation recommendations are discussed in the following paragraphs.

**Parks**
Implementing the proposed riverfront park, linear park, and pocket parks could increase population and employment in the River Corridor by attracting more people to live and work there. Future park development could displace industrial land use and result in requirements for new public services, such as police protection at new parklands and displaced public facilities. Pocket parks are proposed in lands currently approved for
single-family residential use. Although not expected, if the pocket parks were to require any housing displacement, associated socioeconomic impacts would result. Any potential adverse socioeconomic impacts of park development measures would require site-specific analysis, including identifying and evaluating mitigation actions, if applicable.

*Paseos and Promenades*

The proposed paseos and promenade could increase population and employment in the River Corridor by attracting more people to live, work, visit, recreate, and shop in the area. Development of paseo and promenade measures may also displace industrial land uses and require additional public services, namely police and fire protection. Any potential adverse impacts of paseo and promenade measures would require analyzing site-specific impacts, including identifying and evaluating mitigation actions, if applicable.

*Bikeways and Trails*

Implementing trails and bikeway measures in the opportunity area could increase population and employment in the River Corridor by attracting more people to live, work, and recreate in the area. Implementing the measures would likely result in additional public service needs, namely police protection and emergency medical treatment. Any potential adverse impacts of future trails and bikeways measures would require analyzing site-specific impacts, including identifying and evaluating mitigation actions, if applicable.

**4.14.5.3 Evaluation of Impact Level**

Implementing the proposed configuration of revitalization measures would result in high and potentially significant socioeconomic impacts. The greatest potential socioeconomic impacts would be from open space development measures (primarily from the proposed parks, paseos, and promenade) that could require displacement of other industrial, public facilities, and single family residential uses and induced demand for new or altered public services. The configuration of measures would also result in beneficial socioeconomic impacts associated with economic revitalization and growth in employment opportunities in this opportunity area.

Implementing the proposed revitalization measures within the Taylor Yard Opportunity Area would be expected to result in net beneficial socioeconomic impacts if mitigation measures appropriate for reducing potential adverse impacts to less than significant levels are implemented.

**4.14.6 Chinatown-Cornfields Opportunity Area**

**4.14.6.1 Introduction**

The two alternative configurations of measures considered for the Chinatown-Cornfields Opportunity Area are Alternative CC-A and Alternative CC-B. Each alternative includes river channel modification measures, open space development measures, and reinvestment measures. The two alternatives are summarized below and are described in detail in Chapter 2.

**Alternative CC-A**

*River Channel Modification Measures*

Alternative CC-A involves terracing the west bank, up to the railroad tracks, to provide a linear park and terracing the east bank, within the existing ROW, to provide public access to the river’s edge, including an
urban promenade along the bank top. Additional public access would be provided on the west bank by
developing a walkway at the bank top, with steps leading to the river’s edge.

**Open Space Development Measures**
Alternative CC-A includes development of a riverfront park to connect the Los Angeles State Historic Park
eastward to the river channel. A linear park would be provided to connect the western edge of the state park
to the terraced riverbank area. Three paseos, a paseo promenade, and a riverfront promenade along the east
eriver bank are also proposed. Other open space development measures include developing bikeways and
trails, pedestrian river crossings, regional and neighborhood gateways, and water quality/habitat
enhancements.

**Reinvestment Measures**
All properties within the opportunity area would be looked at as potential reinvestment areas, with the
exception of the William Mead Housing Project and its associated school and the DWP transfer station. The
reinvestment focus would be on creating residential/mixed-use frontage along Spring Street, mixed-use
frontage along Main Street, and residential frontage along the linear open space between the state park and
the river. Existing lot and block structure would be continued to allow incremental redevelopment to use
existing infrastructure where possible. Proposed changes in residential development could result in
socioeconomic impacts from induced demand for schools and library public services; this would require
additional impact analysis.

**Alternative CC-B**

**River Channel Modification Measures**
These are the same as those for Alternative CC-A, except a channel diversion would be created, allowing the
creation of a small island that supports habitat and passive recreation (hiking and bird watching). The west
dge of the diversion would transition from riparian to upland habitat and the park.

**Open Space Development Measures**
These impacts are the same as those for Alternative CC-A, except one of the proposed paseos would be in a
different location, there would be one additional paseo promenade proposed, and the locations of some of
the proposed regional and neighborhood gateways would be different.

**Reinvestment Measures**
Alternative CC-B differs from CC-A in that all properties within the opportunity area would be looked at as
potential reinvestment areas. With the DWP transfer station potentially relocated or incorporated into the
proposed island, the DWP property would be available for redevelopment, which would be focused on
revised parcelization based on river revitalization opportunities. The school and public housing would be
redeveloped, potentially requiring relocation of both.

**4.14.6.2 Potential Impacts and Mitigation Actions—Alternative CC-A**
LARRMP revitalization measures included in Alternative CC-A that could result in socioeconomic impacts
include river channel modification measures, select open space development measures (parks, paseos, paseo
promenades, promenades, and trails and bikeways), and reinvestment measures. Potential impacts associated
with these measures and mitigation recommendations are discussed in the following paragraphs.
River Channel Modification Measures
The proposed riverbank terracing would result in socioeconomic impacts of displacing industrial uses in the implementation area. Any potential adverse socioeconomic impacts on industry and employment would require site-specific analysis, including identifying and evaluating mitigation actions, if applicable.

Open Space Development Measures

Parks
Implementing the proposed riverfront park measure to extend the Los Angeles State Historic Park to the Los Angeles River and implementing the proposed linear parks could increase population and employment in the River Corridor by attracting more people to live and work in the area. Future park development could displace multifamily residential, industrial, and public facilities development. Additional socioeconomic impacts could result from induced demand for new public services, such as police protection at new parklands and displaced public facilities. Future impact analyses should also address any potential socioeconomic impacts associated with effects on affordable housing in the River Corridor. There are five affordable housing developments in the opportunity area that provide 452 affordable housing units. Any impact on or potential displacement of affordable housing units would require socioeconomic impact analysis and identification of mitigation measures, if applicable.

Paseos and Promenades
Implementing the proposed paseos, paseo promenade, and riverfront promenade could increase population and employment in the River Corridor by attracting more people to live, work, visit, recreate, and shop. Development of paseo and promenade measures could also displace industrial uses and public facilities. Implementation of the measures would likely result in additional public service needs, namely police and fire protection. Any potential adverse socioeconomic impacts of paseo and promenade measures would require analyzing site-specific impacts, including identifying and evaluating mitigation actions, if applicable.

Bikeways and Trails
Implementing trails and bikeway measures in the opportunity area could increase population and employment in the River Corridor by attracting more people to live, work, and recreate in the area. Implementing the measures would likely require additional public services, namely police protection and emergency medical treatment. Any potential adverse impacts of trails and bikeways measures would require analyzing site-specific impacts, including identifying and evaluating mitigation actions, if applicable.

Reinvestment Measures
Implementing the proposed changes to density and land use mix and the proposed mixed-use developments could displace industrial and residential land uses in the opportunity area. Implementing the measures could also require additional public services, namely emergency medical services, police, and fire protection. Proposed changes in residential development could result in socioeconomic impacts associated with changes in the demand for schools and library public services. Implementing any measures that affect residential properties would require analyzing potential impacts on affordable housing in the opportunity area, including identifying mitigation measures, if applicable. The reinvestment measures would result in beneficial socioeconomic impacts related to increased business and employment opportunities. Any potential socioeconomic impacts of proposed reinvestment measures would require analyzing site-specific impacts, including identifying and evaluating mitigation actions, if applicable.
4.14 Socioeconomics

4.14.6.3 Potential Impacts and Mitigation Actions—Alternative CC-B
The potential socioeconomic impacts of the revitalization measures included in Alternative CC-B are the same as those for Alternative CC-A, except where noted below.

River Channel Modification Measures
The primary difference is the proposed channel diversion, which would require additional displacement of industry and public facilities due to the larger footprint of proposed Alternative CC-B channel modification measures.

Open Space Development Measures
Land use impacts of proposed paseos are similar to those of Alternative CC-A, except that affected land uses are all public facilities (Alternative CC-A paseos impact existing public facilities and industrial land uses). Land use impacts of proposed paseo promenades are similar to those with Alternative CC-A, except there are two (as opposed to one) paseo promenades proposed, and impacted land uses are industrial (Alternative CC-A paseo promenades impact public facilities).

Reinvestment Measures
These impacts are similar to those for Alternative CC-A, but they are more intense, with the potential relocation of the DWP transfer station, the William Mead Housing Project, and the school at East Ann Street. The William Mead Housing Project is one of five affordable housing projects within the opportunity area and provides 92 percent of the affordable housing units there. Any impact on or potential displacement of affordable housing units would require socioeconomic impact analysis and identification of mitigation measures, if applicable.

4.14.6.4 Evaluation of Impact Levels—Alternatives CC-A and CC-B
Implementing Alternative CC-A would result in high and potentially significant socioeconomic impacts. The largest socioeconomic impacts would be from reinvestment measures and open space development measures (primarily associated with parks, paseos, and promenades) that displace industrial, public facilities, and multifamily residential development and result in induced demand for new or altered public services. The alternative would also result in beneficial socioeconomic impacts from economic revitalization and growth in employment opportunities.

Implementing Alternative CC-B would also have a higher level of impact than with Alternative CC-A. The higher level of potential impact would result from the channel diversion, the doubling of paseo promenades, and the more intensified reinvestment actions, which could include relocating the DWP transfer station, affordable housing (William Mead Housing Project), and the school at East Ann Street.

Both alternatives are expected to result in net beneficial socioeconomic impacts in the opportunity area if mitigation measures appropriate for reducing potential adverse impacts to less than significant levels are implemented.
4.14 Socioeconomics

4.14.7 Downtown Industrial Area Opportunity Area

4.14.7.1 Introduction
There are two alternative configurations of measures considered for the Downtown Industrial Area Opportunity Area; Alternative DI-A and Alternative DI-B. Each alternative includes river channel modification measures, open space development measures, and reinvestment measures. The two alternatives are summarized below and are described in detail in Chapter 2.

Alternative DI-A

River Channel Modification Measures
With Alternative DI-A, the river channel is opened up and terraced back in three locations on the east side to provide for small pocket parks and green street connections back into the community. On the west side, an urban promenade is created at the top of the bank, and the existing trapezoidal channel wall is reconfigured as a vertical wall.

Open Space Development Measures
Alternative DI-A includes development of a linear park by realigning the two rail lines on the east side of the river to the two innermost storage tracks along the eastern edge of the river. Grade-separated crossings below the rail lines would also be developed at selected locations to provide access to the park. Additional linear parks would be developed along bank tops on the west and east sides of the river. Three pocket parks are proposed on the east side of the river to provide pedestrian/bicycle passage across rail lines. Green street improvements are proposed at locations throughout the opportunity area. Two paseos and a paseo promenade are proposed on the east side of the river. Other open space development measures proposed for the opportunity area include bikeways and trails, pedestrian river crossings, a series of regional and neighborhood gateways, and water quality/habitat enhancement features.

Reinvestment Measures
Underused properties within the opportunity area would be identified where new live-work units could be developed that reflect the existing character and use mix of the neighborhood. Existing industrial land uses would be protected. The rail line would be shifted to the easternmost rail lines to provide additional parkland adjacent to the river. The rail line would be placed on trestles at select locations to improve access to parks.

Alternative DI-B

River Channel Modification Measures
These are the same as those for Alternative DI-A, except the east side of the channel would be terraced to provide water quality treatment and open space between the Santa Ana Freeway and 7th Street.

Open Space Development Measures
These are the same as those for Alternative DI-A, except a larger linear park would be developed between the eastern banks of the river and Mission Road by realigning and consolidating the two rail lines on the east side with the two through-tracks on the west side of the river. The three pocket parks with Alternative DI-A are not provided because the east side of the channel would be terraced to provide water quality treatment and open space. Two paseo promenades are proposed as opposed to one with Alternative DI-A. Additional
pedestrian underpasses are proposed. Water quality and habitat measures are the same as those for Alternative DI-A, except a larger park/open space/habitat would be developed by realigning and consolidating the two rail lines on the east side with the two through-tracks on the west side of the river.

**Reinvestment Measures**
These are the same as those for Alternative DI-A, except new mixed-use live/work residential properties would be located within the new open space, with street frontage along Mission Road. Also, the rail lines along western edge of river would be consolidated and the inefficient industrial uses (in terms of jobs per square foot) between 7th street, the Santa Monica Freeway, and the river would be transformed into greater density industrial jobs.

**4.14.7.2 Potential Impacts and Mitigation Actions—Alternative DI-A**
LARRMP revitalization measures included in Alternative DI-A that could have socioeconomic impacts in this opportunity area include river channel modification measures, select open space development measures (parks, paseos, paseo promenades, promenades, and trails and bikeways), and reinvestment measures. The potential impacts and mitigation recommendations are discussed in the following paragraphs.

**River Channel Modification Measures**
If future design of the proposed river channel modifications requires lands outside of the existing Los Angeles River ROW, then there could be socioeconomic impacts in the adjoining land from displacing industry. Any adverse socioeconomic impacts on industry and employment would require site-specific analysis, including identifying and evaluating mitigation actions if applicable.

**Open Space Development Measures**

**Parks**
Implementing the proposed upper linear park and pocket parks along the east side of the river would displace industry. If implementation of the proposed bank top linear parks requires lands outside the existing Los Angeles River ROW, then additional displacement of industrial lands could result. Additional socioeconomic impacts could result from induced demand for new public services, such as police protection at new parklands and displaced public facilities.

**Paseos and Promenades**
Implementing the proposed paseos, paseo promenade, and urban riverbank promenade could increase population and employment in the River Corridor by attracting more people to live, work, visit, recreate, and shop in the area. Development of paseo and promenade measures also could displace existing industry. Implementing the measures would likely result in additional public service needs, namely police and fire protection. Any potential adverse impacts of paseo and promenade measures would require analyzing site-specific impacts, including identifying and evaluating mitigation actions, if applicable.

**Bikeways and Trails**
Future implementation of trails and bikeway measures in the opportunity area could increase future population and employment in the River Corridor by attracting more people to live, work, and recreate there. Implementing the measures would likely result in additional public service needs, namely police protection
and emergency medical treatment. Any potential adverse impacts of trails and bikeways would require analyzing site-specific impacts, including identifying and evaluating mitigation actions, if applicable.

**Reinvestment Measures**

Proposed changes to the land use mix and the proposed mixed-use developments could result in socioeconomic impacts from the displacement of industrial land uses in the opportunity area. Implementation of the measures could also result in additional public service needs, namely emergency medical services, police, and fire protection. Proposed changes in residential development could result in socioeconomic impacts from changes in the demand for schools and library public services.

The reinvestment measures would also result in beneficial socioeconomic impacts from increased business and employment opportunities. Any potential socioeconomic impacts of proposed reinvestment measures would require analyzing site-specific impacts, including identifying and evaluating mitigation actions, if applicable.

**4.14.7.3 Potential Impacts and Mitigation Actions—Alternative DI-B**

The potential socioeconomic impacts of the revitalization measures included in Alternative DI-B are the same as those for Alternative DI-A, except where noted below.

**River Channel Modification Measures**

These are similar to the socioeconomic (displacement) impacts for Alternative DI-A, with the main difference being that instead of terracing at three relatively small areas, the terracing would be implemented from the Santa Ana Freeway to 7th Street, a larger potential area of industrial displacement.

**Open Space Development Measures**

Socioeconomic displacement impacts from the proposed expanded east bank linear park would be similar to those of Alternative DI-A (conversion of industrial rail yard to public park open space) but to a larger area. The measures would affect all the Union Pacific Railroad lines on the east bank and also the industrial development between Meyers Street and Mission Road.

**Reinvestment Measures**

The type of socioeconomic impacts are similar to those of Alternative DI-A, but to a larger area of land and affecting all the Union Pacific Railroad lines on the east bank and also the industrial development between Meyers Street and Mission Road.

**4.14.7.4 Evaluation of Impact Levels—Alternatives DI-A and DI-B**

Implementing Alternative DI-A would result in high and potentially significant socioeconomic impacts. The greatest socioeconomic impacts would be associated with the proposed reinvestment measures and the proposed upper east linear park, which would require displacing and relocating the Union Pacific rail yard and lands currently in industrial use. The proposed paseos and paseo promenades could also result in industry displacement. Any displacement of existing commercial and industrial businesses could result in high to significant impacts associated with lost jobs. The alternative could result in high and potentially significant impacts associated with induced demand for new or altered public services. The alternative would also result in beneficial socioeconomic impacts from economic revitalization and growth in employment opportunities.
Implementing Alternative DI-B would also have high and potentially significant socioeconomic impacts (higher level of impacts than those associated with Alternative DI-A). The increase in socioeconomic impact results from the proposed expansion of the east bank linear park, which would require total displacement and relocation of the Union Pacific rail lines for consolidation with BNSF and Metrolink rail lines on the west bank. The larger east bank linear park would also result in greater displacement of industrial lands than with Alternative DI-A.

Both alternatives are expected to result in net beneficial socioeconomic impacts in the opportunity area if mitigation measures appropriate for reducing potential adverse impacts to less than significant levels are implemented.

4.14.8 No Project Alternative
Under the No Project Alternative, LARRMP revitalization measures within the 32-mile River Corridor and the five opportunity areas would not occur. Related river revitalization initiatives would provide some of the desired benefits, but there would not be a cohesive focused revitalization framework and focus for project evaluation and implementation. Population, housing, growth, business mix, employment, and demand for public services would increase over time, as forecasted in the appropriate elements of the General Plan. Growth in business and employment opportunities would not occur at the levels associated with LARRMP implementation.
4.15 ENVIRONMENTAL JUSTICE

4.15.1 Introduction

This section is an evaluation of potential direct and indirect environmental justice impacts on each of the five opportunity areas. Resources addressed in this evaluation include impacts on minority and low-income populations and on health and safety of children in the study area. Mitigation measures that could be applied to reduce adverse environmental justice impacts are identified, along with potential impacts associated with the No Project Alternative.

4.15.1.1 Regulatory Framework

EO 12898 requires federal agencies to ensure effective public participation and access to information. Therefore, a key component of compliance with EO 12898 is outreach to the potentially affected minority and low-income population to discover issues of importance that otherwise may not be apparent. Outreach to affected communities would be conducted as part of the decision making process, and this outreach would be documented.

Environmental justice has its origins with Title VI of the Civil Rights Act of 1964 which states "No person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." In 1994 Executive Order 12898 was issued and gave a renewed emphasis to Title VI and added low-income populations to those protected by the principles of environmental justice.

With respect to how EO 12898 directs the evaluation of environmental justice, the following language from the EO is relevant:

"To the greatest extent practicable and permitted by law ... each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States."

EO 12898 is intended to cover all aspects of potential human discrimination. Relevant language in the EO includes: “assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings…to attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences; to preserve important historic, cultural, and natural aspects of our natural heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice; and to achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities.”

Environmental justice issues encompass a broad range of impacts covered by NEPA, including impacts on the natural or physical environment and interrelated social, cultural and economic effects. In preparing an EIS or an EA, agencies must consider both impacts on the natural or physical environment and related social, cultural, and economic impacts. Environmental justice concerns may arise from impacts on the natural and physical environment, such as human health or ecological impacts on minority populations, low-income populations, and Indian tribes, or from related social or economic impacts.

The analysis of environmental justice in this DEIR/DEIS is based on NEPA and CEQA guidelines. The NEPA guidelines rely on the Executive Order 12898. Project-level analyses should look more closely at
potential disproportionate effects on low-income or minority populations that are predominant in the locations of future LARRMP implementation projects. This should include considering several alternatives and making sure that low-income and minority populations have access to public resources including parks and recreational areas.

The Citywide General Plan Framework, an Element of the City of Los Angeles General Plan was originally adopted by the City Council on December 11, 1996. It was subsequently re-adopted on August 8, 2001. "This Element is a guide for communities to implement growth and development policies by providing a comprehensive long-range view of the City as a whole." The Element’s strategies are based upon several principles which include: Economic Opportunity, Equity and Environmental Quality.

Chapter 9 of the City’s General Plan (which covers Infrastructure and Public Services explicitly) requires in Goal 9L (Recreation and Parks) that the City provide "sufficient and accessible parkland and recreation opportunities in every neighborhood of the City, which gives all residents the opportunity to enjoy green spaces, athletic activities, social activities and passive recreation." Further policies such as 9.23.2 require the City to “Prioritize the implementation of recreation and park projects in areas of the City with the greatest existing deficiencies.”

### 4.15.1.2 Approach and Methodology

Potential disproportionate effects on low-income or minority populations and the potential for increased adverse health effects on children were assessed to evaluate at a programmatic level potential environmental justice impacts. The analysis is based on identifying the presence of minority and low-income populations within the River Corridor and opportunity areas. The assessment was done using US Census 2000 information and proposed measures information to determine if minority or low-income populations exist within the study areas and if they do, whether the proposed measures would impact those communities. Since this is a program-level document, the analysis considers the alternatives on a broad scale, including the proposed measures in general. Project-level analysis would also be done to consider potential localized impacts.

To determine whether low-income and minority populations could be disproportionately affected by the alternatives, the proportion of low-income people and minorities in the areas surrounding the proposed project were analyzed. If high percentages of low-income and minority populations were identified, the potential for these populations to be displaced, for their income or employment to be lost, or for adverse effects on their health or environmental condition from the proposed revitalization measures was assessed. Impacts on affordable housing were also analyzed. To evaluate whether children could encounter disproportionate environmental health or safety effects, the potential environmental health and public safety risks of the proposed measures were identified and evaluated for their proximity to populations of children.

### 4.15.1.3 Significance Criteria

Impacts associated with implementing the LARRMP revitalization measures would be considered significant environmental justice impacts if any of them were to disproportionately decrease socioeconomic opportunities or increase adverse health and environmental conditions within minority or low-income populations or if they were to disproportionately endanger the health and safety of children.
4.15.2 Potential Impacts Associated with LARRMP River Channel Modification and Open Space Development Measures in the River Corridor

4.15.2.1 Types of Impacts

MinORITY AND LOW INCOME POPULATIONS
Cultural and ethnic diversity is a predominant theme in the populations comprising the communities along the River Corridor and the five Opportunity Areas. Within the study area for this PEIR/PEIS, some communities, such as Canoga Park and Boyle Heights, have long-standing deeply-rooted ethnic cultures and traditions. These and other communities within the River Corridor and Opportunity Areas also contain populations of low-income and minority people that are proportionally higher than state and national averages. On this basis, the evaluation of potential impacts in this PEIR/PEIS recognizes that the potential exists for disproportionate impacts on these low-income and minority populations within the study area (River Corridor and Opportunity Areas).

As future revitalization measures are considered for implementation, evaluation of their potential impacts on affordable housing units, minority populations, and low-income populations in the River Corridor and vicinity will be required and appropriate mitigation identified, where applicable. Potential adverse impacts requiring mitigation could include displacement of affordable housing units and minority or low-income residences, noise from construction project sites or vehicle maneuver areas, and construction noise impacts on minority and low-income populations (see Section 4.10, Noise). Noise from construction would last only for the construction period. Construction would be limited to daytime hours. Air quality impacts from fugitive dust emissions could also have a short-term low to moderate impact on minority or low-income residences; however, these potential impacts would be reduced to less than significant levels by implementing best management practices to control dust, as described in Section 4.3.

PROTECTION OF CHILDREN
In 2000, 21 percent of the population within the River Corridor was under the age of 18. Short-term, low adverse, indirect effects on the health and safety of children could occur with implementation of LARRMP implementation projects in the River Corridor. The proposed measures would be implemented near residential areas and schools, where children may be present. Noise sources associated with construction could result in less than significant adverse noise impacts on nearby schools or residences. However, construction would take place in areas that are off-limits to the general public. Restricted areas would continue to be posted with signs and enclosed by a fence. Strict adherence to applicable safety regulations and procedures would continue to protect the health and safety of children. There would be long-term beneficial impacts on the protection of children with the development of parks, green streets, and pedestrian access.

4.15.2.2 Potential Impact Levels
Any future proposals for displacing affordable housing units in the River Corridor to implement revitalization measures would result in high and potentially significant impacts that would likely require mitigation. With implementation of LARRPM revitalization measures in the River Corridor, the level of potential impacts on environmental justice populations and children’s health and safety can be expected to be high and potentially significant during the construction phase, particularly from noise and other construction activities. However, additional consideration of environmental justice issues and children safety should occur during project-level review. This should include consideration of potential local impacts and potential benefits and enhancements.
for communities near future project sites. Project-level review should include outreach to potentially affected communities as part of the project planning and implementation process. The project-level review should also identify appropriate mitigation actions and best management practices during construction to reduce potential impacts to less than significant levels.

4.15.3 Canoga Park Opportunity Area
This section is a discussion of the impacts on minority and low-income populations and health and safety of children that might result from the two alternative configurations of revitalization measures considered in the LARRMP for the Canoga Park Opportunity Area.

4.15.3.1 Potential Impacts and Mitigation Actions—Alternative CP-A
Revitalization measures proposed under Alternative CP-A include 1,200-foot-long terraces along the north and south side. A 15-foot-wide walkway to the river edge and water treatment terraces would be developed along the south side. On the north side, a 15-foot-wide walkway and linear park would be provided. The channel would be modified to create intermittent habitat areas. Open space developments include a riverfront park, two linear parks, and a pocket park. Green streets include three regional greenway connections and several arterial and local green streets. Open space developments include paseos every 300 feet in new developments and one paseo promenade on each side of the river. Additionally, the proposed measures would include bikeways and trails, pedestrian bridges at Deering and between Alabama and Remet Avenues, two regional gateways at Owensmouth, Canoga, and Desoto Avenues, and four neighborhood gateways on the north side of the river at Jordan, Remet, Milwood, and Independence Avenues. Reinvestment measures include land acquisition for open space use.

In 2000, a substantial percentage of Hispanic or Latino population (64.3 percent) was within the Canoga Park Opportunity Area. Affordable housing units in this area were 585. For that same year, 29 percent of the population was under the age of 18.

Implementing the LARRMP revitalization measures within the Canoga Park Opportunity Area is not expected to reduce the number of affordable housing units through displacement. However, due to the close proximity of affordable housing units to proposed revitalization sites, it is recommended that further evaluation of impacts to existing affordable housing units be evaluated prior to their implementation.

As individual LARRMP revitalization projects are implemented, there would be short-term, high and potentially significant impacts on environmental justice populations and the health and safety of children from construction noise and activities. More specifically, project sites or vehicle maneuver areas could have adverse noise impacts on minority and low-income populations (see Section 4.10, Noise Impacts). Noise from construction would last only for the duration of the construction period. In addition, air quality impacts from fugitive dust emissions could have a short-term adverse impact on minority or low-income residents. These impacts could be reduced to less than significant levels by implementing best management practices to control dust, as described under Section 4.3.

The proposed configuration of revitalization measures for this alternative is expected to improve the quality of life, resulting in moderate, long-term beneficial impacts on local residents (including low-income and minority populations), as well as on the health and safety of children.
Overall, potential adverse impacts on environmental justice populations and health and safety of children associated with Alternative CP-A are expected to be temporary and could be reduced to less than significant levels by implementing appropriate mitigation actions and best management practices. Long-term moderate level beneficial impacts on the protection of children are anticipated with the development of parks, green streets, and pedestrian access.

4.15.3.2 Potential Impacts and Mitigation Actions—Alternative CP-B
Potential impacts on minority and low-income populations and on the health and safety of children would be similar to those described for Alternative CP-A, except for a potentially greater area of construction disturbance and resultant increase in short-term adverse noise and air quality impacts on the community. These short-term impacts from construction projects could be reduced to less than significant levels by implementing appropriate mitigation actions and best management practices; in addition, they would likely be sequentially implemented over a long period of time. As with Alternative CP-A, long-term, moderate beneficial impacts on the health and safety of children and local residents are anticipated.

4.15.4 River Glen Opportunity Area
This section is a discussion of the potential impacts on minority and low-income populations and health and safety of children that might result from the two alternative configurations of revitalization measures considered in the LARRMP for the River Glen Opportunity Area.

4.15.4.1 Potential Impacts and Mitigation Actions—Alternative RG-A
The proposed channel modification measures at River Glen include the development of a regional water quality treatment wetland at the Verdugo Wash confluence, terraces above the 50-year storm elevation, and intermittent habitat areas. Open space developments include a river parkway and a linear terraced park between the Verdugo Wash and North Atwater Park. Regional greenway connections would be developed on all east/west streets between the river and North Pacific Avenue, with improved pedestrian crossing at San Fernando Road, West Milford Street, West Broadway Street, and West Colorado Street. Wider sidewalks and other street improvements are provided along San Fernando Road and the frontage road within the industrial area. All the north/south and east/west streets that are not considered regional greenway connections would be developed as arterial green streets. The extensions of West Milford Street, Brazil Street, and Colorado Street would be developed as local green streets. Paseos would be provided every 300 feet in new developments, and a paseo promenade is proposed along Brazil Street. This alternative configuration of measures also includes bikeways and trails, two pedestrian bridges, one pedestrian/equestrian bridge, three regional gateways, and three neighborhood gateways. Under the reinvestment measures, extensive roadway improvements are proposed to improve functionality, while protecting existing land uses and acquiring recyclers for the confluence business park.

In 2000, the Caucasian population was the dominant ethnic group in the River Glen Opportunity Area (55 percent). Hispanics or Latinos were the second dominant group (22.6 percent). There were 23 affordable housing units, and the population below the age of 18 was 23 percent.

As individual LARRMP revitalization projects are implemented, there would be short-term, high and potentially significant impacts on environmental justice populations and the health and safety of children from construction noise and activities. Specifically, project sites or vehicle maneuver areas could have adverse noise impacts on minority and low-income populations (see Section 4.10, Noise Impacts). Noise from
construction would last only for the duration of the construction period. In addition, air quality impacts from fugitive dust emissions could have short-term adverse impacts on minority or low-income residences. These impacts could be reduced to less than significant levels by implementing best management practices to control dust, as described under Section 4.3.

Implementing the LARRMP revitalization measures within the River Glen Opportunity Area would not reduce the number of affordable housing units and therefore would not have any impact on affordable housing in the communities within the opportunity area.

The extensive roadway improvements planned with this alternative might have long-term adverse impacts on minority and low-income populations with the expansion of the ROW and the reconfiguration of the existing road network. However, improving the functionality of the roadway system would result in long-term beneficial impacts on local residents, including low-income and minority populations. As discussed under Sections 4.3 and 4.10, potential temporary construction noise and air impacts would be reduced by implementing feasible mitigation actions to control noise and dust during construction. Additionally, to protect children from entering project sites, fences would be installed during construction. Employing best management practices during construction could reduce short-term impacts on environmental justice populations to less than significant levels. The proposed configuration of revitalization measures for this alternative is expected to improve quality of life, resulting in moderate level long-term beneficial impacts on local residents, including low income and minority populations, as well as on the health and safety of children.

Overall, potential adverse noise and air quality impacts on environmental justice populations and health and safety of children associated with Alternative RG-A could be high and potentially significant during construction but would be temporary and could be reduced to less than significant levels. Long-term, moderate level beneficial impacts on the protection of children are anticipated with the development of parks, green streets, and pedestrian access.

4.15.4.2 Potential Impacts and Mitigation Actions—Alternative RG-B
Potential impacts on minority and low-income populations and on the health and safety of children are similar to those described for Alternative RG-A, except for a potentially greater area of construction disturbance and resultant increase in short-term adverse noise and air quality impacts on the community. These short-term impacts from construction projects would be reduced to less than significant levels by implementing appropriate mitigation action and best management practices; in addition, they would likely be sequentially implemented over a long period of time. As with Alternative RG-A, long-term, moderate beneficial impacts on the health and safety of children and local residents are anticipated.

4.15.5 Taylor Yard Opportunity Area
This section is a discussion of the potential impacts on minority and low-income populations and the health and safety of children that might result from the configuration of revitalization measures proposed in the LARRMP for the Taylor Yard Opportunity Area.

The proposed revitalization measures include one-mile water quality treatment terraces along the east bank and intermittent habitat areas along the channel bottom. Proposed park development includes a riverfront park between the river and the Metrolink rail corridor and a linear park along the western edge of the river. Regional greenway connections are proposed along Fletcher Drive, Eagle Rock Boulevard, Division Street,
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Pepper Avenue, Grenada Street, Marsh Street, Newell Street, Blimp Street, and Birkdale Street. Arterial green streets would be located along San Fernando Road, Fletcher Drive, and Riverside Drive. Local green streets would be located along Gilroy Street, Newell Street, and Riverside Drive. Paseos would be developed along Benedict and Birkdale Streets and Doris Place. Paseos and promenades would be located along Worthen and Eads Streets and Denby and Meadowvale Avenues. Proposed measures also include bikeways and trails, five pedestrian bridges, two regional gateways, and three neighborhood gateways. Over the long term, small industry along the west bank might be replaced with mixed land use as a result of future market pressure.

Substantial percentages of Asian (21.3) and Hispanic or Latino (65.4) populations were located within the Taylor Yard Opportunity Area in 2000. Affordable housing units in 2000 were 24. For that same year, 28 percent of the population was under the age of 18.

Implementing the proposed configuration measures within Taylor Yard Opportunity Area would result in short-term, high and potentially significant impacts on minority and low-income populations and children’s health and safety from potential noise and air impacts during construction. Long-term moderate adverse impacts on minority and low-income populations are anticipated as a result of job losses accompanying the proposed replacement of the west bank light industry with mixed-use development. This proposed development would also likely improve overall quality of life. These potential adverse (and beneficial) impacts should be more precisely determined during project-level review, including identifying appropriate mitigation actions to reduce potential adverse impacts to less than significant levels.

Implementing the proposed LARRMP revitalization measures within the Taylor Yard Opportunity Area would not reduce the number of affordable housing units and therefore would not impact affordable housing in the communities.

The proposed configuration of revitalization measures for this alternative is expected to improve the quality of life, resulting in moderate level, long-term beneficial impacts on local residents (including low income and minority populations), as well as on the health and safety of children. Overall, the potential adverse impacts on environmental justice populations and health and safety of children associated with the proposed configuration of LARRMP revitalization measures are expected to be temporary and reduced to less than significant levels by implementing appropriate mitigation actions and best management practices. Long-term, moderate level beneficial impacts on the protection of children are anticipated with the development of parks, green streets, and pedestrian access.

4.15.6 Chinatown-Cornfields Opportunity Area

This section is a discussion of the potential impacts on minority and low-income populations and health and safety of children that might result from the two alternative configurations of revitalization measures considered in the LARRMP for the Chinatown-Cornfields Opportunity Area.

4.15.6.1 Potential Impacts and Mitigation Actions—Alternative CA-A

The proposed revitalizations measures within Chinatown-Cornfields Opportunity Area include terraces along the west bank and under the existing rail line to provide a linear park, terraces along the east bank to provide access to the river edge, and an urban promenade. Access to the river would be via a 15-foot-wide walkway at the top of the west bank, with steps leading down to the water’s edge. Park developments include extending
the Los Angeles State Historic Park to the river edge and adding three linear parks. Regional greenway connections include the east/west streets between Downtown and Boyle Heights along Spring and Main Streets. Arterial green streets would be located along Broadway, Spring, and Main Streets. Local green streets include all north/south and east/west primary local roads within the opportunity area. Paseos would be developed along all east/west roadways except Wilhardt Street, where paseo promenades would be developed. The proposed configuration of measures includes bikeways and trails, one pedestrian bridge, two pedestrian underpasses, three regional gateways, and several neighborhood gateways. The proposed reinvestment measures include residential/mix-used developments without increasing the existing infrastructure.

In 2000, most of the population within the Chinatown-Cornfields Opportunity Area was Asian (43 percent) and Hispanic or Latino (52.4 percent). Affordable housing units for that year were 452, and 32 percent of the population was under the age of 18.

As individual LARRMP revitalization projects are implemented, there would be short-term, high and potentially significant impacts on environmental justice populations and the health and safety of children from construction noise and activities. Specifically, project sites or vehicle maneuver areas could have adverse noise impacts on minority and low-income populations (see Section 4.10, Noise Impacts). Noise from construction would last only for the duration of construction. In addition, air quality impacts from fugitive dust emissions could have a short-term adverse impact on minority or low-income residents. These impacts could be reduced to less than significant levels by implementing best management practices to control dust, as described under Section 4.3.

Implementing the LARRMP revitalization measures within the Chinatown-Cornfields Opportunity Area is not expected to reduce the number of affordable housing units and therefore would not have any impact on affordable housing in the communities within the opportunity area.

The proposed configuration of revitalization measures for this alternative is expected to improve quality of life, resulting in moderate level, long-term beneficial impacts on local residents (including low-income and minority populations), as well as on the health and safety of children.

Overall, potential adverse noise and air quality impacts on environmental justice populations and health and safety of children associated with Alternative CC-A could be high and potentially significant during construction but would be temporary and could be reduced to less than significant levels. Long-term, moderate level beneficial impacts on the protection of children are anticipated with the development of parks, green streets, and pedestrian access.

4.15.6.2 Potential Impacts and Mitigation Actions—Alternative CC-B

Reinvestment measures associated with Alternative CC-B include potential redevelopment of all properties within the opportunity area, including the William Mead Housing Project. The William Mead Housing Project is one of the five affordable housing projects within the opportunity area, providing 92 percent (416 units) of the affordable housing units there. Any future proposals for displacement of affordable housing units in the River Corridor to implement revitalization measures would result in high and potentially significant impacts that would likely require mitigation.
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Potential impacts on minority and low-income populations and on the health and safety of children are anticipated to be similar to those described for Alternative CC-A, except for a potentially greater area of construction disturbance associated with the more extensive river-channel modifications, with the resultant increase in short-term adverse noise and air quality impacts on the community. These short-term impacts from construction projects are expected to be reduced to less than significant levels by implementing appropriate mitigation actions and best management practices; in addition, they would likely be sequentially implemented over a long period. As with Alternative CC-A, long-term, moderate beneficial impacts on the health and safety of children and local residents are anticipated.

4.15.7 Downtown Industrial Opportunity Area

This section is a discussion of the potential impacts on minority and low-income populations and health and safety of children that might result from the two alternative configurations of revitalization measures considered in the LARRMP for the Downtown Industrial Opportunity Area.

4.15.7.1 Potential Impacts and Mitigation Actions—Alternative DI-A

With Alternative DI-A, the river channel would be opened up and terraced back at three locations on the east side to provide for three small pocket parks and green street connections. Also along the east side, the two rail lines would be realigned to develop a linear park. An urban promenade and a vertical wall would be developed along the west side. The proposed configuration of measures would also include regional greenway connections between Downtown and Boyle Heights along 1st, 4th, 6th, and 7th Streets, arterial green streets along 1st, 4th, 6th, and 7th Streets, and local green streets along all north/south and east/west local roadways. Paseos would be located in new developments every 400 feet and paseo promenades along 3rd and Willow Streets. Five pedestrian bridges would be located at 1st, 4th, 6th, and 7th Streets and the Santa Monica Freeway. Two regional gateways would be located at 1st and 6th Streets and two neighborhood gateways at 3rd and Willow Streets. Proposed reinvestment measures include mixed-use developments for underused properties. The existing industrial land uses would be protected, and rail lines would be relocated to create additional parkland adjacent to the river.

Within the Downtown Industrial Opportunity Area in 2000, 83.7 percent of the population was Hispanic or Latino, and 28 percent of the population was under the age of 18. Affordable housing units for that same year were 957.

As individual LARRMP revitalization projects are implemented, there would be short-term, high and potentially significant indirect effects on environmental justice populations and the health and safety of children from construction noise and activities. Specifically, project sites or vehicle maneuver areas could have adverse noise impacts on minority and low-income populations (see Section 4.10, Noise Impacts). Noise from construction would last only for the duration of construction. In addition, air quality impacts from fugitive dust emissions could have a short-term impact on minority or low-income residents. These impacts could be reduced to less than significant levels by implementing best management practices to control dust, as described under Section 4.3.

Implementation of the LARRMP revitalization measures within the Downtown Industrial Opportunity Area is not expected to reduce the number of affordable housing units and therefore would not have any impact on affordable housing in the communities within the opportunity area.
The proposed configuration of revitalization measures for this alternative is expected to improve the quality of life, resulting in moderate level long-term beneficial impacts on local residents (including low-income and minority populations), as well as on the health and safety of children.

Overall, potential adverse noise and air quality impacts on environmental justice populations and health and safety of children associated with Alternative DI-A could be high and potentially significant during construction but would be temporary and could be reduced to less than significant levels. Long-term, moderate level beneficial impacts on the protection of children are anticipated with the development of parks, green streets, and pedestrian access.

**4.15.7.2 Potential Impacts and Mitigation Actions—Alternative DI-B**

Potential impacts on minority and low-income populations and on the health and safety of children are anticipated to be similar to those described for Alternative DI-A. The only way the alternatives differ is that Alternative DI-B would have a potentially greater area of construction disturbance associated with the more extensive river channel modifications and the transformation of the industrial area to increase the density of industrial jobs. This would increase the short-term adverse noise and air quality impacts on the community. These short-term impacts from construction projects would be reduced to less than significant levels by implementing appropriate mitigation actions and best management practices; in addition, they would likely be sequentially implemented over a long period. As with Alternative DI-A, long-term, moderate beneficial impacts on the health and safety of children and local residents are anticipated.

**4.15.8 No Project Alternative**

The No Project Alternative would be a continuation of existing conditions and implementation of planned and funded foreseeable developments. Under the No Project Alternative, some aspects of the LARRMP revitalization measures might be implemented within the River Corridor. Future developments would likely result in short-term adverse impacts on minority and low-income populations. Such development projects would include appropriate project-level evaluations of potential impacts and identification of measures to avoid or minimize potential impacts.
4.16 CULTURAL RESOURCES

4.16.1 Introduction
This section is an evaluation of potential impacts on cultural and paleontological resources from the revitalization measures contemplated for the River Corridor. It also is an evaluation of the configurations of measures proposed for each of the five opportunity areas. Potential impacts associated with the No Project Alternative are also discussed. The impact analysis is based on incomplete inventory information and the likely presence in some areas of subsurface archaeological and paleontological resources that may be impacted. Also identified are further actions required with future implementation projects to identify resources and to reduce potential adverse impacts on cultural resources.

4.16.1.1 Regulatory Framework

Federal Requirements
The identification of cultural resources and the federal agency responsible for them are addressed by a number of laws, regulations, Executive Orders, programmatic agreements, and other requirements. The principal federal law addressing cultural resources is the National Historic Preservation Act (NHPA) of 1966, as amended (16 United States Code [USC] Section 470), and its implementing regulations: Protection of Historic Properties (36 Code of Federal Regulations [CFR] 800). In the NHPA is Section 106, which describes the process for identifying and evaluating historic properties, for assessing the effects of federal actions on historic properties, and for consulting to avoid, reduce, or minimize adverse effects. The term “historic properties” refers to cultural resources that meet specific criteria for eligibility for listing on the National Register of Historic Places (NRHP). This process does not require historic properties to be preserved but does ensure that the decisions of federal agencies concerning the treatment of these places result from meaningful consideration of cultural and historic values and the options available to protect the properties.

The NHPA is triggered when historic properties may be affected by a federally funded or licensed action or by actions on federal land. In the case of LARRMP measures, federal funding and permits would be required for many of the actions. The identification and evaluation of cultural resources for NRHP eligibility is the responsibility of the lead federal agency (in this case, the Corps), with the concurrence of the California Office of Historic Preservation (OHP). The Section 106 process is usually conducted in phases. First, the area of potential effects (APE) is determined and the type and level of the identification efforts are defined with consulting parties. Methods used to identify the presence of cultural resources and to determine significance vary among the resource types. Although a record search was conducted to define the range of resources found in the River Corridor and opportunity areas, additional cultural resource identification would be necessary in order to complete the Section 106 process. The record search includes only the results of previous archaeological or historical surveys. Consultations have not been initiated with the OHP or with tribal groups to identify traditional cultural properties or other cultural concerns. An APE for the LARRMP measures at the River Corridor and opportunity areas will be defined when specific measures and individual projects are proposed. All required steps and consultations of the Section 106 process will be completed before the project is implemented.

When identified, cultural resources are evaluated to determine whether the resource is eligible for listing on the NRHP or is important to contemporary communities. Resources that are already listed or that are
determined eligible for listing or whose eligibility has not been determined are afforded a level of consideration under the Section 106 process. Undetermined resources are those for which eligibility cannot be determined, based on current knowledge of the resource, and where further work is needed to make an evaluation.

The NRHP criteria for evaluation, as found at 36 CFR 60.4, are as follows: The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- That are associated with events that have made a significant contribution to the broad patterns of our history; or
- That are associated with the lives of persons significant in our past; or
- That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- That have yielded, or may be likely to yield, information important in prehistory or history.

Despite previous disturbance, undiscovered NRHP-eligible prehistoric or historic archaeological sites are possible. Evaluation of archaeological sites typically requires a test excavation phase. Further consultation with Native American tribes is also required if the resource may be related to ancestral use or if it contains burials. For historic buildings and structures, evaluation typically requires archival research and a field evaluation of historic integrity. When eligible properties are within the project’s APE, the OHP is consulted on methods to avoid the potential for direct or indirect adverse effects. If eligible resources are identified but cannot be avoided, acceptable measures to mitigate impacts are developed with the OHP and other consulting parties. For archaeological sites that are eligible only for their information potential (criterion d), additional data recovery excavations are commonly acceptable as mitigation.

Compliance with these and other provisions of the NHPA is required as a process separate from but concurrent with NEPA, first on a programmatic basis and then on a site-specific basis as particular LARRMP measures are refined. The Corps and the City of Los Angeles may choose to enter into a programmatic agreement to streamline compliance with federal cultural resource requirements and conduct tribal consultation for all or portions of the proposed master plan. Many other federal laws and Executive Orders may be relevant to implementing the LARRMP, especially in the case of undiscovered archaeological resources. The following is a partial list:

- American Indian Religious Freedom Act of 1978, as amended (PL. 95-431; 92 Stat. 469; 42 USC 1996), resolves that it shall be the policy of the United States to protect and preserve the inherent right of
freedom of American Indians to believe, express, and exercise their traditional religions, including access to religious sites, use and possession of sacred objects, and freedom to worship through ceremonial and traditional rites. The act is a specific expression of First Amendment guarantees of religious freedom and has no implementing regulations.

- **Archaeological Resources Protection Act (ARPA) of 1979 as amended (PL 96-95; 93 Stat. 721; 16 USC 47O et seq.)** provides for felony-level penalties for excavating, removing, damaging, altering, or defacing any archaeological resource more than 100 years of age, on public or Indian lands, unless authorized by a permit. It prohibits the sale, purchase, exchange, transportation, receipt, or offering of any archaeological resource obtained in violation of any regulation or permit under the act or under any federal, state, or local law. It is implemented by regulations at 43 CFR Part 7.

- **Native American Graves Protection and Repatriation Act of 1990, as amended (PL 101-601; 104 Stat. 3048; 25 USC 3001 et seq.)** establishes rights of Indian tribes and Native Hawaiian organizations to claim ownership of certain cultural items, including human remains, funerary objects, sacred objects, and objects of cultural patrimony. Permits for the excavation or removal of cultural items protected by the act require Native American consultation, as do discoveries of cultural items made during federal land use activities. The Secretary of the Interior's implementing regulations are at 43 CFR Part 10.

- **Consultation and Coordination with Indian Tribal Governments (2000), Executive Order 13175,** further defines and clarifies the government-to-government relationship with federally recognized tribes and consultation requirements for federal actions.

- **Preserve America (2003), Executive Order 13287,** directs federal agencies to improve their management of historic properties and to foster heritage tourism in partnership with local communities.

- **Protection and Enhancement of the Cultural Environment (1971), Executive Order No. 11593,** directs federal agencies to inventory cultural properties under their jurisdiction, to nominate to the National Register all federally owned properties that meet the criteria, to use due caution until the inventory and nomination processes are completed, and to ensure that federal plans and programs contribute to preservation and enhancement of nonfederal properties.

Federal paleontological protections that may be broadly applicable to LARRMP include the Antiquities Act of 1906 that forbids and establishes criminal sanctions for anyone who disturbs any object of antiquity on federal land without first obtaining a permit from an authorizing authority. NEPA is also applicable to paleontological resources by mandating the evaluation of impacts in order to “preserve important historic, cultural and natural aspects of our national heritage” (Section 101b.4). In urban settings, scientifically important paleontological resources are typically revealed only through deep excavations.

**State of California Requirements**

CEQA (California Environmental Quality Act, Cal. Pub. Res. Code §21000 et seq.) requires that the potential impacts of a project on archaeological sites, historic properties, and Native American sacred places be disclosed to the public. CEQA specifies that where “a project may cause a substantial change in the significance of [a] historic resource,” the project “may have a significant effect on the environment” (Cal. Pub. Res. Code §21084.1).

The state maintains the California Register of Historical Resources (CRHR), which includes resources listed on or formally determined to be eligible for listing on the NRHP, some California State Landmarks and
Points of Historical Interest, and properties of local significance that have been designated under a local preservation ordinance. Resources that have been identified in a local historical resources inventory may be eligible for listing on the CRHR and are presumed to be significant resources for purposes of CEQA, unless a preponderance of evidence indicates otherwise (Cal. Pub. Res. Code §5024.1, 14 CCR §4850). Lead agencies also have discretion to determine that a resource has historic significance during the planning process.

If an archaeological resource has been evaluated and is not eligible for listing on the NRHP or the CRHR or is not considered unique, it need not be considered further in the CEQA process. If a site is determined to be eligible and if avoidance is not feasible, the project proponent must develop a plan for mitigating the impact to the project on the qualities that make the resource significant. To fulfill state requirements for archaeological resources, resource-specific mitigation recommendations must be developed. The California Public Resources Code prohibits the unauthorized disturbance or removal of archaeological, historical, or paleontological resources on public lands (Cal. Pub. Res. Code §5097.5 [Stats. 1965, C. 11362792]).

Several sections of the Public Resources Code (Chapter 1332, Cal. Pub. Res. Code §5097.9 et seq) address Native American religious freedom, the inventory of sacred sites, consultation requirements, and treatment of traditional cultural properties and Native American remains. These sections prohibit a public agency or private party from interfering with the free expression or exercise of Native American religion and from causing severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine located on public property, except on a clear and convincing showing that the public interest and necessity so require. Section 5097.9 also established the Native American Heritage Commission (NAHC) in 1977. The NAHC is authorized to inventory sacred places on public lands and to review the administrative and statutory protections accorded to such places. All state and local agencies are directed to cooperate with the NAHC in transmitting CEQA environmental impact reports related to property of special religious significance to Native Americans. No public agency may alter, modify, disturb, remove, destroy, or damage any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine except with the consent of the NAHC. In addition, the NAHC can mediate disputes relating to treatment of remains and designate “most likely descendants” of encountered remains. Section 5097.991 states “It is the policy of the state that Native American remains and associated grave artifacts shall be repatriated.”

For Historic and Architectural Resources, Section 15064.5(b) of the CEQA Guidelines would apply to architectural and historic resources that are found eligible for the CRHR or that meet the other significance criteria in Section 15064.5(a) of the CEQA Guidelines. Section 5020.1 establishes the threshold of “substantial adverse change” as demolition, destruction, relocation, or alteration activities that would impair the significance of the historic resource. Per CEQA Section 15064.5, “Generally, a project that follows the Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings shall be considered as mitigated to a level of less than a significant impact on the historical resource.”

**Local Requirements**

The City of Los Angeles Standard Specifications for Public Works Construction, Section 6-3.2, requires that grading, excavating, or conducting other ground-disturbing activities for a public project be halted in the area
of a paleontological or archaeological find until such time as a resource expert can review the find, determine its significance, and, if required, determine appropriate mitigation measures.

For historic building and structures, Section 22.132 of the City of Los Angeles Charter and Administrative Code, entitled “Permits Required” would apply to any resource that has been identified as a City of Los Angeles Historic-Cultural Monument, as follows:

No permit for the demolition, substantial alteration or removal of any building, structure or site contained in said list shall be issued, and no such site, building or structure shall be demolished, substantially altered or removed by the City without first referring the matter to the Commission, except where the Superintendent of Building or the City Engineer determines that demolition, removal or substantial alteration of any such building, structure or site is immediately necessary in the interest of the public health, safety, or general welfare.

4.16.1.2 Significance Criteria
The level and significance of impacts that may be associated with implementing the LARRMP measures are based on the federal “criteria of adverse effect” and the Draft City of Los Angeles CEQA Thresholds of Significance (City of Los Angeles 1998). In evaluating the context and intensity of an environmental effect, a significance threshold provides a qualitative or quantitative benchmark for determining whether the impact is significant or less than significant.

The criteria of adverse effect is defined in 36 CFR 800.5a. as follows:

An adverse effect is found when an action may alter the characteristics of a historic property that qualify it for inclusion in NRHP in a manner that would diminish the integrity of the property’s location, design, setting, workmanship, feeling, or association. Adverse effects may include reasonably foreseeable effects caused by the action that may occur later in time, be farther removed in distance, or be cumulative.

The criteria of adverse effect also provide a general framework for determining the context and intensity of potential impacts on traditional cultural properties. Assessment of impacts involving traditional cultural properties or effects on traditional practices or resources also requires focused consultation with the affected group. The NAHC is a clearinghouse for information on known or potential locations of Native American sacred and cultural sites in California. The NAHC also maintains the current list of tribal consultation contacts. For the category of Native American sacred sites, potential significant impacts include altering, modifying, disturbing, removing, destroying, or damaging any sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine without the consent of the NAHC.

There are no mandated federal criteria for assessing impacts on paleontological resources. Generally a significant impact would occur if an action were to directly or indirectly damage, destroy, or allow the improper collection of scientifically important paleontological resources. These include fossils or assemblages of fossils that are unique, unusual, rare, uncommon, and diagnostically or stratigraphically important and those that add to an existing body of knowledge in specific areas, stratigraphically, taxonomically, or regionally (Reynolds 1988).
Under CEQA each local public agency is encouraged to develop and publish thresholds of significance that the agency uses in determining the significance of environmental effects. The Draft City of Los Angeles CEQA Thresholds Guide includes separate entries for archaeological resources, historical resources, and paleontological resources.

**Archaeological Resources**

Under the significance thresholds, a project would normally have a significant impact on archaeological resources if it could disturb, damage, or degrade an archaeological resource or its setting that is found to be important under the criteria of CEQA because it:

- Is associated with an event or person of recognized importance in California or American prehistory or of recognized scientific importance in prehistory;
- Can provide information that is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable archaeological research questions;
- Has a special or particular quality, such as the oldest, best, largest, or last surviving example of its kind;
- Is at least 100 years old and possesses substantial stratigraphic integrity; or
- Involves important research questions that historical research has shown can be answered only with archaeological methods.

Although the CEQA criteria state that “important archaeological resources” are those that are at least 100 years old, the CRHR provides that any site determined eligible for nomination to the NRHP would automatically be included within the CRHR and subject to all protections. The NRHP eligibility criteria do not require that a site be 100 years old.

**Historic Resources**

Under the significance thresholds, a project would normally have a significant impact on historical resources if it would result in a substantial adverse change in the significance of a historical resource. A substantial adverse change in significance occurs if the project involves:

- Demolishing a significant resource;
- Relocating a significant resource without maintaining its integrity and significance;
- Converting, rehabilitating, or altering a significant resource without conforming to the Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings; or
- Constructing anything that reduces the integrity or significance of important resources on the site or in the vicinity.

**Paleontological Resources**

Under the significance thresholds, a project would have a significant impact on paleontological resources, as determined on a case-by-case basis, considering whether or not, or the degree to which, the project might result in the permanent loss of, or loss of access to, a paleontological resource and whether or not the paleontological resource is of regional or statewide significance.
4.16.2 Potential Impacts Associated with LARRMP River Channel Modification and Open Space Development Measures in the River Corridor

This section is a discussion of the potential impacts on cultural and paleontological resources from implementing the LARRMP river channel modifications and open space development measures (described in Sections 2.2 and 2.3 of this PEIR/PEIS). In all cases, potential impacts are addressed programmatically based on resource information and understanding of the proposed measures. This is accomplished by first determining whether or not resources are known to be present or may be expected, then by assessing the ways the resource could be affected by the types of contemplated revitalization measures. Further consultation, identification and effects analysis must be conducted when specific measures are proposed through individual projects and completed prior to project implementation.

4.16.2.1 River Channel Modification Measures

The two types of LARRMP River Channel Modification Measures are those without reduction in river flow velocity and those with reduction in river flow velocity. In both instances the measures would be limited to the concrete river channel and an unspecified and variable ROW adjacent to the river.

Cultural Resources

As described in Section 3.16.2.3, the River Corridor was a center for prehistoric and historic settlement, food procurement, and transportation. As the river was a locus for human activity and use, cultural remains are possible from several time periods. However, the river channel is a highly disturbed area. When the river flowed naturally, it was dynamic and frequently flooded and changed course. With European and American settlement, further modifications were made to use and control this resource. By 1959 the river channel had been excavated and contained in a series of concrete channels, flood control reservoirs, and debris basins.

There are no recorded archaeological sites in the current river channel. Because of the past disturbance, it is unlikely that intact archaeological resources would be present. However, floods can encapsulate cultural remains in deep layers, and some intact prehistoric or historic deposits could be present, especially below the edges of the river channels. The likelihood of encountering historic archaeological deposits is higher in the reach of the river from the Fletcher Drive Bridge through Downtown because of the early transportation and industrial development in the immediate River Corridor. Archaeological resources in the River Corridor could have research value and may meet the eligibility criteria for the NRHP and be significant under CEQA. A research design would help define specific research questions that could be addressed through the use and recovery of archaeological data.

Consultation was not conducted in this phase to determine whether or not any traditional cultural properties are present. Because of past disturbance, traditional cultural properties are possible but are not expected. If prehistoric or ethnohistoric archaeological sites or burials are encountered, these would likely be important to contemporary Native American communities.

Few historic structures and buildings have been inventoried or evaluated in the immediate river channel area. Some of the bridges over the Los Angeles River are historically significant architecturally, and it is likely that additional historic structures and buildings would be identified in site-specific inventories. River containment and flood control facilities are all over 45 years old and would need to be evaluated for historic significance prior to major alterations.
Both types of channel modification measures would require ground disturbance, which could impact archaeological resources, if present, by altering the spatial relationships of artifacts and features and thus reduce research potential. Sometimes the exposure of archaeological sites can lead to damage from vandalism or erosion. River channel modifications that seek to reduce river flow velocity would require more ground disturbance than modifications that do not. This disturbance would be related to off-channel attenuation or in the construction of underground linear culverts parallel to and adjacent to the river.

Both types of channel modification measures could impact the integrity of historic buildings and structures through direct alteration of, removal from, or alterations to setting. River channel modifications that seek to reduce river flow velocity would have more of a potential to impact historic buildings and structures because of acquisition and modification of adjacent properties. Indirect impacts could include beneficial impacts from public and private restoration and rehabilitation of historic structures in conjunction with revitalization. Conversely, revitalization could stimulate the demolition of older unprotected structures, if property values rise.

Paleontology
Most of the River Corridor, in particular the downtown area, includes subsurface geologic units that could yield scientifically important vertebrate paleontological resources under shallow Holocene alluvium. Because the river has been channelized, there may be locations where paleontological resources could be near the surface and exposed by excavations.

The potential for encountering paleontological resources would be greatest where excavations are most extensive and deep, such as for underground linear culverts. Typically in urban settings paleontological resources are only discovered and made available for study as a consequence of construction projects. Negative impacts could occur if the resources are inadvertently destroyed without being studied during construction or if subjected to unauthorized collection or damage due to exposure and erosion.

4.16.2.2 Open Space Development Measures in the River Corridor
As discussed in Section 2.3, open space development measures include eventually developing a greenway along the entire River Corridor that connects and enhances adjacent communities. Proposed amenities include greenway connections from the river to existing parks, natural areas, public transportation, schools, and other public resources; greenway expansions that would be new open space opportunities; and greenway extensions that would be new greenways to river tributaries and the “greening” of selected streets. Measures include developing a variety of parks, green streets, paseos and promenades, trails and bikeways, pedestrian river crossings, river loops, gateways, and water quality and habitat improvements.

Cultural Resources
Prehistoric and historic archaeological sites have been found and are possible throughout the River Corridor. Sensitivity for historic archaeological resources is probably higher than prehistoric or ethnohistoric sites, especially in the old industrial and rail yard areas. Historic buildings and structures such as bridges are present, including resources that are eligible for listing or that are listed on the NRHP, the CRHR, and are City of Los Angeles Cultural-Historical Monuments. Inventories are incomplete, and many unrecorded and unevaluated buildings and structures are assumed to be present. No traditional cultural properties (that is, places that are associated with traditional cultural practices or beliefs) are anticipated, but archaeological sites or burials that may be important to contemporary Native American communities could be encountered.
All of the proposed measures include ground-disturbing activities, such as excavation and grading, that could affect the integrity of archaeological sites, if present. The depth of disturbance appears to be generally shallow and in many cases planned for highly disturbed areas, such as urban streets. However, in the absence of specific project information, some relatively undisturbed areas and depths could be excavated that could impact archaeological resources that have research value or may be important to contemporary Native Americans.

The proposed open space measures could impact the integrity of historic buildings and structures through direct alteration, removal, or changes in setting. Alterations could be proposed for historic structures, such as bridges or channel infrastructure. The open space development could require the removal of historic buildings and features. New developments, such as pedestrian bridges and paseos, may impact the setting of older structures. Indirect impacts of the revitalization include beneficial impacts from public and private restoration and rehabilitation of historic structures and the negative impacts of the removing older unprotected structures due to gentrification.

**Paleontology**

There is a potential for scientifically important vertebrate paleontological resources to be present. The likelihood of encountering resources depends on the location, depth of the sensitive geologic units, and the depth of the disturbance associated with the open space measure. Beneficial impacts could result if resources are discovered and made available for scientific study. Negative impacts could occur if the resources were inadvertently destroyed without being studied during construction or if they were subjected to unauthorized collection or damage due to exposure and erosion.

**4.16.2.3 Potential Impact Levels**

As particular LARRMP measures are refined, further identification efforts and project-specific impact analysis would be conducted, and the Section 106 process would be completed. Moderate to high and potentially significant adverse impacts on cultural resources are possible. In some cases, impacts may be reduced to less than significant levels through mitigation measures. In other cases, mitigation measures may not be adequate to avoid significant negative impacts. Moderate to high beneficial effects may occur if revitalization in the River Corridor leads to the restoration and rehabilitation of historic structures, although moderate to high negative impacts could occur if new development results in the loss of historic structures. There would be moderate beneficial impacts on paleontological resources if new fossils were recovered in the course of construction and moderate negative impacts if resources were destroyed without scientific study.

**4.16.3 Canoga Park Opportunity Area**

The Canoga Park Opportunity Area is located where Bell Creek and Arroyo Calabasas converge to form the Los Angeles River. (A detailed description of the alternatives for this opportunity area can be found in Sections 2.4.1 and 2.4.2 of this PEIR/PEIS.) An assessment of the potential environmental impacts on cultural and paleontological resources of the two alternatives contemplated for this opportunity area is presented below.

**4.16.3.1 Potential Cultural Resources Impacts—Alternative CP-A**

Revitalization measures proposed under Alternative CP-A include creating terraces north and south side of the channel and modifying the channel bottom to create habitat. A riverfront park would be created on the south side of the river and two linear parks and a pocket park would be constructed. Three regional greenway
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Connectors are proposed and several arterial and local green streets are contemplated. The plan also includes paseos, promenades, a bikeway trail, two pedestrian river crossings, a regional gateway, and three neighborhood gateways.

There have been few studies to identify cultural resources in the opportunity area. There are no recorded archaeological resources and few historic buildings have been identified and evaluated. The first known European/American settlement on the site was the town of Owensmouth, which was laid out 1912. This site was developed much later than most of the other opportunity areas. Consultation was not conducted in this phase to determine whether or not any traditional cultural properties are present. There is little information available from previous studies to evaluate archaeological or paleontological sensitivity. Alternative CP-A would require property acquisition, removal, and alteration of buildings and structures, shallow and deep excavation, and new construction. These actions could impact archaeological sites, historic buildings and structures, and paleontological resources if any were present at the project site.

The acquisition of rights of way and property for revitalization measures and subsequent site preparation would require removing structures, grading, and excavating. Affected buildings and structures would need to be evaluated to determine whether or not any historic resources would be removed or altered. Proposed construction may change the physical setting of historic buildings and structures. Alterations are proposed for channel infrastructure that may also be historic. If the proposed actions were to alter the characteristics of historic properties that qualify them for inclusion on the NRHP or the CRHR, there could be an adverse effect.

All of the revitalization measures would involve ground-disturbing activities, which can impact the spatial relationship of artifacts and features in archaeological sites and destroy research potential. Many of the proposed ground-disturbing activities would be shallow and would occur in previously disturbed areas, such as city streets. Deep excavations also could unearth and destroy paleontological resources. However, scientifically important paleontological resources could be discovered through deep excavations and salvaged for further study.

Indirect impacts of the revitalization measures include beneficial impacts from public and private restoration and rehabilitation of historic structures and the negative impacts of removing older structures and altering historic neighborhoods due to increased density and land values.

4.16.3.2 Potential Cultural Resources Impacts—Alternative CP-B

Impacts associated with Alternative CP-B are similar to those of Alternative CP-A. A greater amount of land acquisition, park development, ground disturbance, and channel modification would increase the potential for impacting cultural resources. The proposed increased level of reinvestment measures, emphasis on increased density, and commercial construction may have the indirect effect of prompting demolition of older structures and affecting the setting of historic buildings and structures.

4.16.3.3 Potential Impact Levels

As particular LARRMP measures are refined, further identification efforts and project-specific impact analysis would be conducted, and the Section 106 process would be completed. Adverse effects on cultural resources are possible, but the impacts may be reduced to less than significant levels through mitigation measures. Moderate beneficial effects may occur if revitalization in or adjacent to the opportunity area leads to the
restoration and rehabilitation of historic structures, although moderate negative impacts could occur if new development results in the loss of historic structures. There would be moderate beneficial impacts on paleontological resources if new fossils were recovered in the course of construction, and moderate negative impacts would occur if resources were destroyed.

4.16.4 River Glen Opportunity Area
The potential impacts associated with the two alternatives for LARRMP revitalization measures at the River Glen Opportunity Area are discussed below. The opportunity area is at the bend where the Los Angeles River is joined by the Verdugo Wash and heads south at Griffith Park. A description of the alternatives for this opportunity area can be found in Sections 2.4.1 and 2.4.3. Below is an assessment of the potential environmental impacts on cultural and paleontological resources of the two alternatives contemplated for this opportunity area.

4.16.4.1 Potential Cultural Resources Impacts—Alternative RG-A
The proposed revitalization measures at the River Glen Opportunity Area under Alternative RG-A include terracing the east bank of the river channel above the 50-year storm elevation and creating a linear park. The channel bottom would be modified to create additional habitat. Three regional greenway connectors are proposed and several arterial and local green streets are planned. The proposal also includes paseos, promenades, a bikeway trail, a pedestrian/equestrian river crossing, a pedestrian river crossing, three regional gateways, and three neighborhood gateways. It also includes reconfiguring the Colorado Street freeway entrance.

There have been few studies to identify cultural resources in the opportunity area. There are no recorded archaeological resources and no confirmed cultural resources that are designated under a federal, state, or local historic preservation law. Consultation was not conducted in this phase to determine whether or not any traditional cultural properties are present. There is little information available to evaluate sensitivity for traditional cultural properties or paleontological or archaeological resources.

Alternative RG-A would require property acquisition, removal and alteration of buildings and structures, shallow and deep excavation, and new construction. These actions could impact any archaeological sites, historic buildings and structures, and paleontological resources at the project site. Some types of archaeological sites may also be important to contemporary Native Americans.

The acquisition of ROWs and property for revitalization measures and subsequent site preparation would require removing structures, grading, and excavating. Affected buildings and structures would need to be evaluated to determine whether or not any historic resources would be removed or altered. New construction that is proposed may change the physical setting of historic buildings and structures. Alterations are proposed for channel infrastructure that may also be historic. If the proposed actions alter the characteristics of historic properties that qualify them for inclusion on the NRHP or the CRHR, there could be an adverse effect.

All of the revitalization measures involve ground-disturbing activities, which could impact the spatial relationship of artifacts and features in archaeological sites and destroy research potential. Many of the proposed ground-disturbing activities would be shallow and would occur in previously disturbed areas, such as city streets. Deep excavations also could unearth and destroy paleontological resources. However,
scientifically important paleontological resources could be discovered through deep excavations and salvaged for further study.

Indirect impacts of the revitalization include beneficial impacts from public and private restoration and rehabilitation of historic structures and the negative impacts from removing older structures and altering historic neighborhoods due to increased density and land values.

4.16.4.2 Potential Cultural Resources Impacts—Alternative RG-B

Alternative RG-B is similar to Alternative RG-A, except that the Verdugo Wash would be realigned to enter the Los Angeles River farther downstream creating a small island of habitat; additional ROW would be acquired on the east bank of the river and would be terraced to provide a series of street end parks and water quality treatment terraces. A water quality habitat area would be developed to the east of I-5 to connect Griffith Park with the river.

Similar impacts on cultural resources would be anticipated to result from Alternative RG-B. A greater amount of land acquisition, park development, ground disturbance, and channel modification would be proposed and would increase the potential for impacting cultural resources. The proposed increased level of reinvestment measures, emphasis on increased density, and commercial construction may have the indirect effect of prompting demolition of older structures and affecting the setting of historic buildings and structures.

4.16.4.3 Potential Impact Levels

As particular LARRMP measures are refined, further identification efforts and project-specific impact analysis would be conducted, and the Section 106 process would be completed. Moderate to high and potentially significant adverse impacts on cultural resources are possible. In some cases, impacts may be reduced to less than significant levels through mitigation measures. In other cases, mitigation measures may not be adequate to avoid significant negative impacts. Moderate to high beneficial effects may occur if revitalization in or adjacent to the opportunity area leads to the restoration and rehabilitation of historic structures, although moderate to high negative impacts could occur if new development results in the loss of historic structures. There would be moderate beneficial impacts on paleontological resources if new fossils were recovered in the course of construction, and moderate negative impacts would occur if resources were destroyed without scientific study.

4.16.5 Taylor Yard Opportunity Area

A single configuration of revitalization measures is proposed for the Taylor Yard Opportunity Area (see Sections 2.4.1 and 2.4.4). Channel modification measures include creating terraces along the east bank for approximately one mile and developing intermittent habitat areas along the channel bottom. Green spaces include developing a regional park between the river and the Metrolink/Rail Corridor, green connections with the new Los Angeles State Historic Park, a continuous linear park and seven pocket parks on the west side of the river, green streets, paseos and a promenade along the east bank of the river. Bikeways and trails, pedestrian river crossings, a series of regional and neighborhood gateways, and water quality/habitat enhancement measures would be constructed. Reinvestment and market forces would encourage a shift in adjacent land use from industrial to mixed-use.

The Los Angeles River in the vicinity of the Taylor Yard Opportunity Area has always been a transportation corridor. Taylor Yard, built in 1888, was a major rail switching yard and maintenance facility and the
surrounding area includes early industrial locations and working class neighborhoods. There have been several cultural resource studies in the vicinity. The opportunity area includes three recorded archaeological sites and three buildings or structures that are eligible for the CRHR, two that are eligible for the NRHP, and four that are designated Los Angeles Historic-Cultural Monuments. A further inventory of buildings and structures would likely record additional resources. Because of the early development in the opportunity area, historic archaeological resources are likely to be present. Consultation was not conducted in this phase to ascertain if any traditional cultural properties are present. The opportunity area also includes formations that have a high sensitivity to contain fossil resources, although there is little information available to evaluate sensitivity for prehistoric archaeological resources or traditional cultural properties.

The suite of proposed revitalization measures would require acquiring property, removing and altering buildings and structures, conducting shallow and deep excavation, and constructing new structures. These actions could impact archaeological sites, historic buildings and structures, and paleontological resources, if any are present at the project site. Some types of archaeological sites may also be important to contemporary Native Americans.

The acquisition of ROWs and property for revitalization measures and subsequent site preparation would require removing structures, grading, and excavating. Affected buildings and structures would need to be evaluated to determine whether any historic resources would be removed or altered. Proposed construction may change the physical setting of historic buildings and structures. Alterations are proposed for channel infrastructure that may also be historic and near the historic Fletcher Drive Bridge. If the proposed actions alter the characteristics of historic properties that qualify them for inclusion on the NRHP or the CRHR, there could be an adverse effect.

All of the revitalization measures involve ground-disturbing activities, which can impact the spatial relationship of artifacts and features in archaeological sites and destroy research potential. Some types of archaeological sites may also be important to contemporary Native Americans. Many of the proposed ground-disturbing activities would be shallow and would occur in previously disturbed areas, such as city streets. Deep excavations also could unearth and destroy paleontological resources. However, scientifically important paleontological resources can be discovered through deep excavations and salvaged for further study.

Indirect impacts of the revitalization include beneficial impacts, from public and private restoration and rehabilitation of historic structures, and negative impacts of the removal of older structures and alteration of historic neighborhoods due to increased density and land values. The reinvestment measures specifically anticipate a shift in land uses to mixed-use development. Adjacent neighborhoods include industrial buildings, older housing stock, and ethnic enclaves that may be impacted by actions at the opportunity area.

4.16.5.1 Potential Impact Levels
As particular LARRMP measures are refined, further identification efforts and project-specific impact analysis would be conducted, and the Section 106 process would be completed. Moderate to high and potentially significant adverse impacts on cultural resources are possible. In some cases, impacts may be reduced to less than significant levels through mitigation measures. In other cases, mitigation measures may not be adequate to avoid significant negative impacts. Moderate to high beneficial effects may occur if revitalization in or adjacent to the opportunity area leads to the restoration and rehabilitation of historic structures, although
moderate to high negative impacts could occur if new development results in the loss of historic structures. There would be moderate beneficial impacts on paleontological resources if new fossils were recovered in the course of construction, and moderate negative impacts would occur if resources were destroyed without scientific study.

### 4.16.6 Chinatown-Cornfields Opportunity Area

The potential cultural resources impacts associated with the two alternative configurations of revitalization measures are discussed below. The Chinatown-Cornfields Opportunity Area is just south of Elysian Park and Dodger Stadium, on the northern end of Chinatown and includes the Los Angeles State Historic Park. A description of the two alternatives for this opportunity area can be found in Sections 2.4.1 and 2.4.5. Below is a discussion of the anticipated environmental impacts on biological resources for each of these alternatives.

#### 4.16.6.1 Potential Cultural Resources Impacts—Alternative CC-A

The proposed channel modification measures at the Chinatown-Cornfields Opportunity Area include terracing the west bank up to the railroad tracks to provide a linear park. The east bank would be terraced within the ROW to provide public access to the river’s edge and an urban promenade along the bank top. Additional public access would be provided on the west bank by developing a walkway at the bank top with steps leading to the river’s edge. Open space measures include creating a riverfront park connecting the Los Angeles State Historic Park to the river channel. A linear park would connect the western edge of the state park to the terraced riverbank area. Three paseos, a paseo promenade, and a riverfront promenade along the east river bank are also proposed. Other open space development measures include developing bikeways and trails, pedestrian river crossings, regional and neighborhood gateways, and water quality/habitat enhancement measures. Reinvestment measures would focus on creating residential/mixed-use frontage along Spring Street, mixed-use traditional on Main Street, and residential frontage along the linear open space between the state park and the river.

The opportunity area and immediate vicinity include many of the earliest developed areas in Los Angeles. Recorded resources range from the early 19th century through the mid-twentieth century. Many cultural resource studies have been conducted, and nine historic archaeological sites have been recorded, including a single large site documenting the River Station, which was the first transcontinental railroad station in Los Angeles. There are 17 properties eligible for the CRHR and the NRHP, and two properties are formally listed on the NRHP. There are five state historic landmarks and 16 designated City of Los Angeles Historic-Cultural Monuments. Because of the early development in the opportunity area, historic archaeological resources are likely to be present. Consultation was not conducted in this phase to determine whether or not any traditional cultural properties are present. The opportunity area also includes formations that have a high sensitivity to contain fossil resources, but there is little information available to evaluate sensitivity for prehistoric archaeological resources or traditional cultural properties.

The suite of proposed revitalization measures would require acquiring property, removing and altering buildings and structures, conducting shallow and deep excavation, and constructing new structures. These actions could impact archaeological sites, historic buildings and structures, and paleontological resources, if any are present at the project site.

The acquisition of ROWs and property for revitalization measures and subsequent site preparation would require removing structures, grading, and excavating. Affected buildings and structures would need to be
evaluated to determine whether any historic resources would be removed or altered. Construction that is proposed may change the physical setting of historic buildings and structures, including three historic bridges (Buena Vista Viaduct, Main Street Bridge, and Macy Street Viaduct). Alterations are proposed for channel infrastructure that may also be historic. If the proposed actions alter the characteristics of historic properties that qualify them for inclusion on the NRHP or the CRHR, there could be an adverse effect.

All of the revitalization measures would involve ground-disturbing activities, which can impact the spatial relationship of artifacts and features in archaeological sites and destroy research potential. Some types of archaeological sites may also be important to contemporary Native Americans. Many of the proposed ground-disturbing activities would be shallow and would occur in previously disturbed areas, such as city streets. Deep excavations also could unearth and destroy paleontological resources. However, scientifically important paleontological resources can be discovered through deep excavations and salvaged for further study.

Indirect impacts of the revitalization include beneficial impacts from public and private restoration and rehabilitation of historic structures. They also include the negative impacts of removing older structures and impacts on historic and ethnic neighborhoods due to changes in land use and property values.

**4.16.6.2 Potential Cultural Resources Impacts—Alternative CC-B**

Under Alternative CC-B, proposed revitalization measures are the same as those for Alternative CC-A, except a channel diversion would be created, allowing the creation of a small island. The west edge of the diversion would transition from riparian to upland habitat and the park. One of the proposed paseos is in a different location, there is one additional paseo promenade proposed, and the locations of some of the proposed regional and neighborhood gateways are different. Reinvestment measures and redevelopment would be more intensive. The Department of Water and Power, public housing, and school properties may be made available for redevelopment, and development parcels could be revised.

Impacts are similar. There would be a greater amount of land acquisition, park development, ground disturbance, and modification of the channels which would increase the potential for impacting cultural resources. The proposed increased level of reinvestment measures and emphasis on redevelopment may have the indirect effect of prompting demolition of older structures and affecting the setting of historic buildings and structures. Some of the Department of Water and Power buildings within the opportunity area are historic and may be impacted by redevelopment proposals.

**4.16.6.3 Potential Impact Levels**

As particular LARRMP measures are refined, further identification efforts and project-specific impact analysis would be conducted, and the Section 106 process would be completed. Moderate to high and potentially significant adverse impacts on cultural resources are possible. In some cases, impacts may be reduced to less than significant levels through mitigation measures. In other cases, mitigation measures may not be adequate to avoid significant negative impacts. Moderate to high beneficial effects may occur if revitalization in or adjacent to the opportunity area leads to the restoration and rehabilitation of historic structures, although moderate to high negative impacts could occur if new development results in the loss of historic structures. There would be moderate beneficial impacts on paleontological resources if new fossils were recovered in the course of construction, and moderate negative impacts would occur if resources were destroyed without scientific study.
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4.16.7 Downtown Industrial Opportunity Area

There are two alternative configurations of measures considered in the LARRMP for the Downtown Industrial Opportunity Area: Alternative DI-A and Alternative DI-B, which are described in detail in Sections 2.4.1 and 2.4.6 of this PEIR/PEIS. The potential impacts associated with the two alternatives are discussed below.

4.16.7.1 Potential Cultural Resources Impacts—Alternative DI-A

Under Alternative DI-A, the river channel would be opened up and terraced back in three locations on the east side to provide for small pocket parks and green street connections back into the community. On the west side, an urban promenade would be created at the top of the bank, and the existing trapezoidal channel wall would be reconfigured as a vertical wall. A linear park would be created by realigning rail lines and storage tracks on the east side of the river. Grade-separated crossings below the rail lines would also be developed at selected locations to provide access into the park. Additional linear parks would be developed along bank tops on the west and east sides of the river. Three pocket parks are proposed on the east side of the river to provide access across rail lines. Green street improvements are proposed at locations throughout the opportunity area. Two paseos and a paseo promenade are proposed on the east side of the river. Other proposed measures include bikeways and trails, pedestrian river crossings, a series of regional and neighborhood gateways, and water quality/habitat enhancement features. While existing industrial land uses would be protected, underused properties would be identified where new live-work units could be developed that reflect the existing character and use mix of the neighborhood.

This opportunity area includes some of the earliest industrialized and residential areas of the city and includes the site of the former Le Grande Railway Station. Some of the proposed measures would extend into the community of Boyle Heights, which is rich in historic buildings. Over 20 cultural resource studies have been conducted and nine historic archaeological sites have been recorded. There are 25 properties eligible for listing on the CRHR and the NRHP, and two properties are designated as City of Los Angeles Historic-Cultural Monuments. Because of the early development in the opportunity area and information from previous investigations, historic archaeological resources are likely to be present. Consultation was not conducted in this phase to ascertain if any traditional cultural properties are present. The opportunity area also includes formations that have a high sensitivity to contain fossil resources, but there is little information available to evaluate sensitivity for prehistoric archaeological resources or traditional cultural properties.

The suite of proposed revitalization measures would require acquiring property, removing and altering buildings and structures, conducting shallow and deep excavation, and constructing structures. These actions could impact archaeological sites, historic buildings and structures, and paleontological resources if any are present at the project site.

The acquisition of ROWs and property for revitalization measures and subsequent site preparation would require removing structures, grading, and excavating. Affected buildings and structures would need to be evaluated to determine whether any historic resources would be removed or altered. Proposed construction may change the physical setting of historic buildings and structures, including bridges. Alterations are proposed for channel infrastructure that may also be historic. If the proposed actions alter the characteristics of historic properties that qualify them for inclusion on the NRHP or the CRHR, there could be an adverse effect.
All of the revitalization measures involve ground-disturbing activities, which could impact the spatial relationship of artifacts and features in archaeological sites and destroy research potential. Some types of archaeological sites may also be important to contemporary Native Americans. Many of the proposed ground-disturbing activities would be shallow and would occur in previously disturbed areas, such as city streets. Deep excavations also could unearth and destroy paleontological resources. However, scientifically important paleontological resources could be discovered through deep excavations and salvaged for further study.

Indirect impacts of the revitalization include beneficial impacts from public and private restoration and rehabilitation of historic structures, the negative impacts of removing older structures, and impacts on historic and ethnic neighborhoods of changing land use and property values.

4.16.7.2 Potential Cultural Resources Impacts—Alternative DI-B
Alternative DI-B is similar to Alternative DI-A except that a larger linear park would be developed on the eastern banks of the river through rail realignment. The three pocket parks proposed under DI-A would be eliminated, and the east side of the channel would be terraced. An additional paseo promenade would be proposed, and additional land would be available for a larger park and habitat area. Reinvestment measures include a new mixed-use live-work residential property in the new open space along Mission Road. Rail consolidation and higher density and more efficient industrial uses would be emphasized over retaining current industrial uses.

A greater amount of land acquisition, park development, ground disturbance, and modification of the channels is proposed, which would increase the potential for impacting cultural resources. The proposed increased level of reinvestment measures and the emphasis on redevelopment could have the indirect effect of prompting demolition of older structures and affecting the setting of historic buildings and structures.

4.16.7.3 Potential Impact Levels
As particular LARRMP measures are refined, further identification efforts and project-specific impact analysis would be conducted, and the Section 106 process would be completed. Moderate to high and potentially significant adverse impacts on cultural resources are possible. In some cases, impacts may be reduced to less than significant levels through mitigation measures. In other cases, mitigation measures may not be adequate to avoid significant negative impacts. Moderate to high beneficial effects may occur if revitalization in or adjacent to the opportunity area leads to the restoration and rehabilitation of historic structures, although moderate to high negative impacts could occur if new development results in the loss of historic structures. There would be moderate beneficial impacts on paleontological resources if new fossils were recovered in the course of construction, and moderate negative impacts would occur if resources were destroyed without scientific study.

4.16.8 Mitigation Actions and Best Management Practices
Further project-level investigations, assessments, and evaluations to identify, evaluate, and determine levels of effects on cultural resources are required prior to implementing LARRMP revitalization measures. When specific LARRMP revitalization measures are ripe for analysis, the Corps and the City may choose to enter into a programmatic agreement with the OHP and others to satisfy the requirements of Section 106 of the NHPA for all or portions of the proposed master plan. Because many of the LARRMP revitalization measures and cultural resource impact issues are common to the whole project, a programmatic agreement
can set standards and expectations for consistently addressing cultural resources for the plan implementation and avoiding redundant consultations. Alternatively, the Corps and the City may choose to address cultural resources on a project-by-project basis because of the long implementation time frame, project funding or phasing, and differences between specific project sites. For example, there would be differences between the potential types of historical archaeological sites expected in the Downtown Opportunity area and the Canoga Park Opportunity area.

As specific LARRMP implementation projects are identified and undertaken in the future, additional inventory and site- and resource-specific surveys should be conducted to better define resources and potential impacts. Future project plans and designs should be coordinated with planners so that potential issues with cultural and paleontological resources can be avoided, if possible.

Potential mitigation, best management practices, and investigation protocols that could be employed with future projects to reduce levels of potential adverse impacts include the following:

**Regarding Cultural Resources**

- Define the APE for cultural resources based on the proposed action in consultation with the OHP;
- Update the cultural resource record search and resolve any data discrepancies;
- Conduct an in-depth review of cultural resource records and reports, local histories, ethnic neighborhood development, Sanborn Insurance and other historic maps, and other literature relevant to the project area;
- Contact the California Native American Heritage Commission for a Sacred Lands File (SLF) search to obtain information on any known or potential sacred sites or traditional cultural properties at the specific project sites;
- Obtain a list of current tribal contacts in the project vicinity who may have additional cultural resource information and conduct consultation on Native American cultural concerns;
- Determine the need, appropriate level of effort, and methods for effective archaeological and historic built environment surveys;
- Inventory and evaluate resources for eligibility for the NRHP and CRHR, which may require test excavations or additional archival research;
- Prepare a professional report detailing the findings and recommendations of the records search and inventories. Submit all findings to the OHP and file all reports and site forms with the South Central Coastal Information Center;
- By applying the criteria of adverse effect and the City of Los Angeles CEQA thresholds, determine impacts on known or anticipated cultural resources resulting from the proposed action and develop specific mitigation measures with the concurrence of the OHP;
- Avoid impacting resources through project redesign or modification when significant cultural resources are discovered during the course of project planning. Avoidance is defined in §15370 of the CEQA Guidelines;
- Prepare a discovery plan outlining in detail procedures for discovering unanticipated buried resources;
Include provisions for discovery of Native American human remains or unmarked cemeteries in mitigation plans;

Follow Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec §15084.5 (d) of the CEQA Guidelines procedures in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery;

Conduct data recovery excavations of archaeological sites that cannot be avoided or are discovered during construction, based on an approved research design appropriate to the anticipated site type;

If the buried resources are anticipated, monitor all excavations;

Protect exposed archaeological sites from vandalism and erosion. Consider covering and encapsulating archaeological sites under sterile fill after recording;

Prepare a preservation plan for historic buildings and structures to ensure that construction is compatible with historic resources and that alterations are consistent with the appropriate Secretary of Interior standard;

Coordinate all actions involving historic bridges or in the vicinity of historic bridges with the City's ongoing Bridge Program, which ensures that new construction, modification, and seismic retrofits are consistent with the historic status of these structures;

Encourage adaptive reuse through zoning and reinvestment incentives;

If preservation in place is not possible or if major modifications are needed, undertake documentation according to the requirements of the Historic American Building Survey or the Historic American Engineering Record and ensure that copies are made available locally; and

Require that local preservation organizations and historical societies have access to record the resource and remove significant historic elements for archives.

Regarding Paleontological Resources

Conduct additional archival and field research to determine site-specific sensitivity for impacting paleontological resources;

If appropriate, conduct limited exploratory sampling to determine resource potential;

Revise the proposed project to avoid excavating or grading in areas with known or potential surface exposures of fossils, or within rock units with a high potential for paleontological resources;

Retain a qualified paleontologist to monitor for scientifically important fossil remains. Divert grading efforts in the area of exposed paleontological resources to allow evaluation and, if necessary, salvage. Ensure that scientific specimens are curated at a public, nonprofit educational institution, such as the Los Angeles County Museum of Natural History.

If found, provide erosion protection (e.g., retaining walls, drainage channels) to protect surface resources and restrict or prevent access to sensitive resource areas; and

Protect subsurface fossils in place by covering them with appropriate soil materials.
4.16 Cultural Resources

4.16.9 No Project Alternative
Under the No Project Alternative, LARRMP revitalization measures within the 32-mile River Corridor and the five opportunity areas would not occur. Potential negative and positive impacts on cultural and paleontological resources from the LARRMP measures would not be realized, although some similar actions may occur within the River Corridor or in the five opportunity areas under other authorities or in conjunction with private entities. It is unlikely that a coordinated multiagency approach to addressing the affected cultural resources throughout the River Corridor would occur.

Throughout the River Corridor cultural resource compliance actions would continue to be conducted for projects that are federal undertakings or that require NEPA or CEQA review. For these actions, surveys would be conducted, impacts would be assessed, and mitigations would be prescribed. For other actions, cultural and paleontological resources would be considered in planning new development to the extent required by local jurisdictions.

Local surveys of architectural resources would continue to add to the inventory of recorded resources. Older buildings and structures in economically depressed areas near the river would continue to be altered, neglected or removed with little economic incentive for restoration or rehabilitation. Other revitalization and redevelopment proposals may only be viable by clearing large tracts of older buildings and structures and allowing development that alters the setting of historic buildings and structures.
4.17 AESTHETIC RESOURCES

4.17.1 Introduction
This section is an evaluation of the impacts on aesthetic resources from the revitalization measures and the particular configuration of measures for the five opportunity areas. Potential mitigation measures that could be applied to reduce adverse impacts on aesthetic resources are discussed, along with the No Project Alternative.

4.17.1.1 Regulatory Framework
The Conservation Element of the City of Los Angeles General Plan contains objectives, policies, and programs for the City’s resources, which include land forms and scenic vistas (City of Los Angeles 2001). The conservation element contains the following land form and scenic vista objective and policy:

- **Objective**: Protect and reinforce natural and scenic vistas as irreplaceable resources and for the aesthetic enjoyment of present and future generations.
- **Policy**: Continue to encourage and/or require property owners to develop their properties in a manner that will, to the greatest extent practical, retain significant existing land forms (e.g., ridge lines, bluffs, unique geologic features) and unique scenic features (historic, ocean, mountains, unique natural features) and/or make possible public view or other access to unique features or scenic views.

Other elements, such as the Transportation Element in the City of Los Angeles General Plan also discuss scenic resources. Furthermore, local community plans and specific plans address scenic resources in the Los Angeles area and are included in the City of Los Angeles’ General Plan. These plans include the following:

- Northeast Los Angeles Community Plan;
- Canoga Park-Winnetka-Woodland Hills-West Hills Community Plan;
- Van Nuys-North Sherman Oaks Community Plan; and
- San Gabriel/Verdugo Mountains Scenic Preservation Specific Plan.

The County of Los Angeles General Plan contains goals and policies pertaining to scenic resources (Los Angeles County 1993). One of the goals is to conserve aesthetic resources and protect the environment. General policies for this goal include the following:

- **Policy 15**: Protect areas that have significant natural resources and scenic values, including significant ecological areas, the coastal zone, and prime agricultural lands.
- **Policy 21**: Develop community parks, particularly in areas of the greatest deficiency, and take advantage of opportunities to preserve large natural and scenic areas.

The Los Angeles River Master Plan Landscaping Guidelines and Plant Palettes describes the vision for developing a continuous natural scenic and recreational corridor enhancement of the existing channel (Los Angeles and San Gabriel Rivers Watershed Council 2004). It addresses design considerations and planting guidelines.
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4.17.1.2 Significance Criteria
Determining the type and level of potential impacts on aesthetic resources from the river channel modification and open space development measures in the River Corridor is based mainly on the types and levels of changes to aesthetic resources that might result. These potential impacts are characterized in this PEIR/PEIS as beneficial or adverse, low, moderate, or high, with the level of significance determined for high impacts. Implementing any of the specific revitalization measures described in Chapter 2 would have a significant adverse impact on mineral resources if it were to result in the following:

- Has a substantial adverse effect on a scenic vista;
- Substantially damages scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrades the visual character or quality of the site and its surroundings; or
- Creates a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

4.17.2 Potential Impacts Associated with LARRMP Revitalization Measures in the River Corridor
This section is a discussion of the potential adverse and beneficial impacts on aesthetic resources within the River Corridor.

4.17.2.1 River Channel Modification and Open Space Measures

River Channel Modifications
There are two types of LARRMP River Channel Modification Measures, those without reduction in river flow velocity and those with reduction in river flow velocity. In both instances the measures would be limited to the concrete river channel and an unspecified and variable ROW adjacent to the river. Potential impacts on each of these types of channel modifications are discussed below.

Without Reduction in River Flow Velocity
River channel modifications without a reduction in river flow velocity would add vegetation to ROW areas and develop intermittent habitat areas along the channel bottom. These actions would increase the presence of natural areas visible from the banks of the river. Increasing the amount of natural areas is considered a beneficial impact because the Los Angeles River is mostly flanked by a highly developed environment. The addition of natural areas would add diversity and an organic attractiveness to the urban landscape. Also, increasing the amount of natural areas is considered beneficial because the Los Angeles River would partially revert to its natural form. As a result, there would be direct, beneficial, long-term impacts on the existing visual character or quality of the site and its surroundings because the amount of natural areas would increase.

With Reduction in River Flow Velocity
River channel modifications with a reduction in river flow velocity would result in impacts similar to those described above for river channel modifications without a reduction in river flow velocity. However, there would be greater beneficial impacts because vegetation would be added to more ROW areas, and continuous habitat areas along the channel bottom would be visible, instead of intermittent habitat areas along the channel bottom.
During construction of river channel modifications, employee and construction vehicles would likely use local streets and highways. Also, bright spotlights would be used at times to illuminate construction activities at night. As a result, there would be direct, adverse, short-term impacts from light or glare because nighttime lighting would increase. Also there would be direct, adverse, short-term impacts on the visual character or quality of the site and its surroundings because the traffic during construction in the vicinity of project sites would increase and would be visible in the vicinity. However, the impacts on aesthetic resources from construction would be low because construction would be temporary.

**Open Space Development Measures**

As described in Chapter 2, the eight categories of open space development measures considered are parks, green streets, paseos and promenades, trails and bikeways, pedestrian river crossings, river loops, gateways, and water quality and habitat. These measures would create a more natural landscape along the banks of the river by establishing a variety of parks, greening a variety of streets by, for example, planting trees, and establishing vegetated areas to filter river water. Increasing the amount of natural areas is considered a beneficial impact because the Los Angeles River is mostly flanked by a highly developed environment. The addition of natural areas would add diversity and an organic attractiveness to the urban landscape. Also, increasing the amount of natural areas is considered beneficial because the Los Angeles River would partially revert to its natural form. As a result, there would be direct, beneficial, long-term impacts on the existing visual character or quality of the site and its surroundings because the amount of natural areas would increase.

These measures would also create paths and connections that are pedestrian and bicycle friendly, as well as create areas for the public to gather. In some places, this would replace derelict or neglected land or structures. Revitalizing areas is considered a moderate beneficial impact because it furthers a sense of purpose and vitality to the visual environment of the community. As a result, there would be direct, beneficial, long-term impacts on the visual character or quality of the site and its surroundings because paths and gathering places, such as paseos and promenades, would revitalize some areas that are dilapidated or abandoned.

Open space development measures would likely involve lighting for nighttime activities at, for example, parks or for safety purposes along, for example, pathways. In places where open space development measures replace existing structures, the new lighting would be similar to the previous lighting, resulting in no new impacts from light or glare. In places where open space development measures add new lighting, there would be direct, adverse, long-term impacts from light or glare. Although new lighting would diminish the natural darkness at night, the impacts on aesthetic resources would be low due to the highly developed landscape of surrounding areas.

During construction of open space measures, employee and construction vehicles would likely use local streets and highways. Also, bright spotlights would be used at times to illuminate construction at night. As a result, there would be direct, adverse, short-term impacts from light or glare because nighttime lighting would increase. Also there would be direct, adverse, short-term impacts on the visual character or quality of the site and its surroundings because the traffic during construction in the vicinity of project sites would increase. Construction traffic and work would be visible in the vicinity of project sites, but the impacts on aesthetic resources from construction would be low because construction would be temporary.
4.17.2.2 Potential Impact Levels
There would be direct beneficial long-term impacts on the visual character or quality from individual LARRMP revitalization projects. The beneficial impacts would be from river channel modifications and open space measures because the amount of natural areas in the highly developed areas would increase. Also, there would be moderate, direct, beneficial long-term impacts within and around future project sites from open space development because derelict or neglected areas would gain a greater sense of visual vitality.

There would be direct, adverse short-term impacts from light or glare because nighttime lighting would increase during construction at future implementation project sites. Also there would be direct, adverse, short-term impacts on the visual character or quality of each site and its surroundings because the traffic in the vicinity of project sites would increase during construction. However, the impacts on aesthetic resources from construction would be low because construction would be temporary.

In places where open space development measures add new lighting that diminishes the natural darkness at night, there would be direct, adverse long-term impacts from light or glare. Again, the impacts on aesthetics would be low since the surrounding areas are highly developed.

4.17.3 Canoga Park Opportunity Area
This section describes the potential impacts on aesthetic resources associated with the two alternative configurations of river channel modification, open space development, and reinvestment measures discussed in the LARRMP for the Canoga Park Opportunity Area (Alternatives CP-A and CP-B).

4.17.3.1 Potential Aesthetic Resources Impacts—Alternative CP-A
River channel modifications would add natural areas in and adjacent to the river, increasing the presence of natural areas visible from the banks of the river. Also, the eight categories of open space development measures would create a more natural landscape along the banks of the river. Increasing the amount of natural areas is considered a beneficial impact because the Los Angeles River is mostly flanked by a highly developed environment. The addition of natural areas would add diversity and an organic attractiveness to the urban landscape. Also, increasing the amount of natural areas is considered beneficial because the Los Angeles River would partially revert to its natural form. As a result, there would be direct, beneficial, long-term impacts on the visual character or quality of the site and its surroundings because the amount of natural areas would increase.

The open space measures would also create paths and connections that are pedestrian- and bicycle-friendly, as well as create areas for the public to gather. In some places, this would replace derelict or neglected land or structures. Revitalizing areas is considered a moderate beneficial impact because it furthers a sense of purpose and vitality to the visual environment of the community. As a result, there would be direct, beneficial long-term impacts on the visual character or quality of the site and its surroundings because paths and gathering places, such as paseos and promenades, would revitalize some areas that are dilapidated or abandoned.

Open space development measures would likely involve lighting for nighttime activities at, for example, parks or for safety purposes along, for example, pathways. In places where open space development measures replace existing structures, the new lighting would be similar to the previous lighting, resulting in no new impacts from light or glare. In places where open space development measures add new lighting, there would be direct, adverse long-term impacts from light or glare. Although new lighting would diminish the natural
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darkness at night, the impacts on aesthetic resources would be low due to the highly developed landscape of surrounding areas.

During construction of open space measures, employees and construction vehicle operators would likely use local streets and highways. Also, bright spotlights would be used at times to illuminate construction activities at night. As a result, there would be direct, adverse short-term impacts from light or glare because nighttime lighting would increase. Also, there would be direct, adverse short-term impacts on the visual character or quality of the site and its surroundings because construction traffic in the vicinity of project sites would increase. Construction traffic and work would be visible in the vicinity of project sites, but the impacts on aesthetic resources from construction activities would be low because construction would be temporary.

4.17.3.2 Potential Aesthetic Resources Impacts—Alternative CP-B
Impacts on aesthetic resources would result in impacts similar to those for Alternative CP-A. However, there would be greater beneficial impacts under this alternative because more natural areas would be created.

4.17.4 River Glen Opportunity Area
This section is a description of the potential impacts on aesthetic resources from the two alternative configurations of river channel modification, open space development, and reinvestment measures for the River Glen Opportunity Area (Alternatives RG-A and RG-B).

4.17.4.1 Potential Aesthetic Resources Impacts—Alternative RG-A
River channel modifications would add natural areas in and adjacent to the river, increasing the presence of natural areas visible from the banks of the river. Also, the eight categories of open space development measures would create a more natural landscape along the banks of the river. Increasing the amount of natural areas is considered a beneficial impact because the Los Angeles River is mostly flanked by a highly developed environment. The addition of natural areas would add diversity and an organic attractiveness to the urban landscape. Also, increasing the amount of natural areas is considered beneficial because the Los Angeles River would partially revert to its natural form. As a result, there would be direct, beneficial long-term impacts on the visual character or quality of the site and its surroundings because the amount of natural areas would increase.

The open space measures would also create paths and connections that are pedestrian- and bicycle-friendly, as well as create areas for the public to gather. In some places, this would replace derelict or neglected land or structures. Revitalizing areas is considered a moderate beneficial impact because it furthers a sense of purpose and vitality to the visual environment of the community. As a result, there would be direct, beneficial, long-term impacts on the visual character or quality of the site and its surroundings because paths and gathering places, such as paseos and promenades, would revitalize some areas that are dilapidated or abandoned.

Open space development measures would likely involve lighting for nighttime activities at, for example, parks or for safety purposes along, for example, pathways. In places where open space development measures replace structures, the new lighting would be similar to the previous lighting, resulting in no new impacts from light or glare. In places where open space development measures add new lighting, there would be direct, adverse long-term impacts from light or glare. Although new lighting would diminish the natural darkness at night, the impacts on aesthetic resources would be low due to the highly developed landscape of surrounding areas.
During construction of open space measures, employees and construction vehicle operators would likely use local streets and highways. Also, bright spotlights would be used at times to illuminate construction activities at night. As a result, there would be direct, adverse short-term impacts from light or glare because nighttime lighting would increase. Also there would be direct, adverse short-term impacts on the visual character or quality of the site and its surroundings because construction traffic in the vicinity of project sites would increase. Construction traffic and work would be visible in the vicinity of project sites, but the impacts on aesthetic resources from construction would be low because construction would be temporary.

4.17.4.2 Potential Aesthetic Resources Impacts—Alternative RG-B
Impacts on aesthetic resources would result in impacts similar to those for Alternative RG-A. However, there would be greater beneficial impacts under this alternative because more natural areas would be created.

4.17.5 Taylor Yard Opportunity Area
This section describes the potential impacts on aesthetic resources from the proposed configuration of river channel modification, open space development, and reinvestment measures for the Taylor Yard Opportunity Area.

River channel modifications would add natural areas in and adjacent to the river, increasing the presence of natural areas visible from the banks of the river. Also, the eight categories of open space development measures would create a more natural landscape along the banks of the river by establishing a variety of parks, greening a variety of streets by, for example, planting trees and establishing vegetated areas to filter river water. Increasing the amount of natural areas is considered a beneficial impact because the Los Angeles River is mostly flanked by a highly developed environment. The addition of natural areas would add diversity and an organic attractiveness to the urban landscape. Also, increasing the amount of natural areas is considered beneficial because the Los Angeles River would partially revert to its natural form. As a result, there would be direct, beneficial, long-term impacts on the visual character or quality of the site and its surroundings because the amount of natural areas would increase.

The open space measures would also create paths and connections that are pedestrian- and bicycle-friendly, as well as create areas for the public to gather. In some places, this would replace derelict or neglected land or structures. Revitalizing areas is considered a moderate beneficial impact because it furthers a sense of purpose and vitality to the visual environment of the community. As a result, there would be direct, beneficial long-term impacts on the visual character or quality of the site and its surroundings because paths and gathering places, such as paseos and promenades, would revitalize some areas that are dilapidated or abandoned.

Open space development measures would likely involve lighting for nighttime activities at, for example, parks or for safety purposes along, for example, pathways. In places where open space development measures replace structures, the new lighting would be similar to the previous lighting, resulting in no new impacts from light or glare. In places where open space development measures add new lighting, there would be direct, adverse long-term impacts from light or glare. Although new lighting would diminish the natural darkness at night, the impacts on aesthetic resources would be low due to the highly developed landscape of surrounding areas.

During construction of open space measures, employee and construction vehicles would likely use local streets and highways. Also, bright spotlights would be used at times to illuminate construction activities at
night. As a result, there would be direct, adverse short-term impacts from light or glare because nighttime lighting would increase. Also there would be direct, adverse short-term impacts on the visual character or quality of the site and its surroundings because construction traffic in the vicinity of project sites would increase. Construction traffic and work would be visible in the vicinity of project sites, but the impacts on aesthetic resources from construction activities would be low because construction activities would be temporary.

4.17.6 Chinatown-Cornfields Opportunity Area

This section describes the potential impacts on aesthetic resources from the two alternative configurations of river channel modification, open space development, and reinvestment measures discussed in the LARRMP for the Chinatown-Cornfields Opportunity Area (Alternatives CC-A and CC-B).

4.17.6.1 Potential Aesthetic Resources Impacts—Alternative CC-A

River channel modifications would add natural areas in and adjacent to the river, increasing the presence of natural areas visible from the banks of the river. Also, the eight categories of open space development measures would create a more natural landscape along the banks of the river. Increasing the amount of natural areas is considered a beneficial impact because the Los Angeles River is mostly flanked by a highly developed environment. The addition of natural areas would add diversity and an organic attractiveness to the urban landscape. Also, increasing the amount of natural areas is considered beneficial because the Los Angeles River would partially revert to its natural form. As a result, there would be direct, beneficial, long-term impacts on the visual character or quality of the site and its surroundings because the amount of natural areas would increase.

The open space measures would also create paths and connections that are pedestrian- and bicycle-friendly, as well as create areas for the public to gather. In some places, this would replace derelict or neglected land or structures. Revitalizing areas is considered a moderate beneficial impact because it furthers a sense of purpose and vitality to the visual environment of the community. As a result, there would be direct, beneficial, long-term impacts on the visual character or quality of the site and its surroundings because paths and gathering places, such as paseos and promenades, would revitalize some areas that are dilapidated or abandoned.

Open space development measures would likely involve lighting for nighttime activities at, for example, parks or for safety purposes along, for example, pathways. In places where open space development measures replace structures, the new lighting would be similar to the previous lighting, resulting in no new impacts from light or glare. In places where open space development measures add new lighting, there would be direct, adverse, long-term impacts from light or glare. Although new lighting would diminish the natural darkness at night, the impacts on aesthetic resources would be low due to the highly developed landscape of surrounding areas.

During construction of open space measures, employees and construction vehicle operators would likely use local streets and highways. Also, bright spotlights would be used at times to illuminate construction activities at night. As a result, there would be direct, adverse short-term impacts from light or glare because nighttime lighting would increase. Also there would be direct, adverse short-term impacts on the visual character or quality of the site and its surroundings because construction traffic in the vicinity of project sites would increase. Construction traffic and work would be visible in the vicinity of project sites, but the impacts on aesthetic resources from construction would be low because construction would be temporary.
4.17.6.2 Potential Aesthetic Resources Impacts—Alternative CC-B
Impacts on aesthetic resources would result in impacts similar to those for Alternative CC-A. However, there would be greater beneficial impacts under this alternative because more natural areas would be created.

4.17.7 Downtown Industrial Opportunity Area
This section describes the potential impacts on aesthetic resources from the two alternative configurations of river channel modification, open space development, and reinvestment measures for the Downtown Industrial Opportunity Area (Alternatives DI-A and DI-B).

4.17.7.1 Potential Aesthetic Resources Impacts—Alternative DI-A
River channel modifications would add natural areas in and adjacent to the river, increasing the presence of natural areas visible from the banks of the river. Also, the eight categories of open space development measures would create a more natural landscape along the banks of the river. Increasing the amount of natural areas is considered a beneficial impact because the Los Angeles River is mostly flanked by a highly developed environment. The addition of natural areas would add diversity and an organic attractiveness to the urban landscape. Also, increasing the amount of natural areas is considered beneficial because the Los Angeles River would partially revert to its natural form. As a result, there would be direct, beneficial, long-term impacts on the visual character or quality of the site and its surroundings because the amount of natural areas would increase.

The open space measures would also create paths and connections that are pedestrian- and bicycle-friendly, as well as create areas for the public to gather. In some places, this would replace derelict or neglected land or structures. Revitalizing areas is considered a moderate beneficial impact because it furthers a sense of purpose and vitality to the visual environment of the community. As a result, there would be direct, beneficial long-term impacts on the visual character or quality of the site and its surroundings because paths and gathering places, such as paseos and promenades, would revitalize some areas that are dilapidated or abandoned.

Open space development measures would likely involve lighting for nighttime activities at, for example, parks or for safety purposes along, for example, pathways. In places where open space development measures replace structures, the new lighting would be similar to the previous lighting, resulting in no new impacts from light or glare. In places where open space development measures add new lighting, there would be direct, adverse long-term impacts from light or glare. Although new lighting would diminish the natural darkness at night, the impacts on aesthetic resources would be low due to the highly developed landscape of surrounding areas.

During construction of open space measures, employee and construction vehicles would likely use local streets and highways. Also, bright spotlights would be used at times to illuminate construction at night. As a result, there would be direct, adverse, short-term impacts from light or glare because nighttime lighting would increase. Also there would be direct, adverse, short-term impacts on the visual character or quality of the site and its surroundings, because the traffic during construction in the vicinity of project sites would increase. Construction traffic and work would be visible in the vicinity of project sites. However, the impacts on aesthetic resources from construction would be low because construction would be temporary.
4.17.7.2 Potential Aesthetic Resources Impacts—Alternative DI-B
Impacts on aesthetic resources would result in impacts similar to those for Alternative DI-A. However, there would be greater beneficial impacts under this alternative because more natural areas would be created.

4.17.8 Mitigation Actions/Best Management Practices
Implementing the LARRMP river channel modification, open space development, and reinvestment measures described in Chapter 2 does not require mitigation because there would be no significant impacts on aesthetic resources. Also, the proposed actions would comply with regulations pertaining to aesthetic resources. However, BMPs would aid in minimizing low adverse impacts on aesthetic resources. For example, shrouds could be used to block stray light emanating from new light sources that are a part of the project, and construction activities could be scheduled to minimize the use of spotlights used at night. Also, construction traffic could be timed to reduce the amount of traffic and activities visible in the vicinity of project sites. These, and other BMPs, should be further developed once specific site designs are completed.

4.17.9 No Project Alternative
Under the No Project Alternative, there would be no changes to aesthetic resources. Therefore, there would be no beneficial or adverse impacts on aesthetic resources. Existing aesthetic resources would continue to be visible.
4.18 CUMULATIVE PROJECTS AND IMPACTS

The CEQA Guidelines and CEQ regulations implementing NEPA require that the cumulative impacts of a proposed action be assessed (14 CCR Section 15130; 40 CFR Parts 1500-1508). A cumulative impact is an “impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions” (40 CFR § 1508.7). Cumulative impacts can result from individually minor but collectively significant actions taking place over time (40 CFR § 1508.7). The Army NEPA regulations (32 CFR 651.51[a][1][ii]) also require that cumulative actions, those that have cumulatively significant impacts, be discussed in the same impact statement. CEQ’s guidance for considering cumulative effects states that NEPA documents “should compare the cumulative effects of multiple actions with appropriate national, regional, state, or community goals to determine whether the total effect is significant” (CEQ 1997).

In general, past, present, and reasonably foreseeable future projects are assessed by resource area. Cumulative effects may arise from single or multiple actions and may result in additive or interactive effects. Interactive effects may be either countervailing, where the adverse cumulative effect is less than the sum of the individual effects, or synergistic, where the net adverse cumulative effect is greater than the sum of the individual effects (CEQ 1997). The factors considered in determining the significance of cumulative impacts are the same as those presented for each resource earlier in Chapter 4.

An integral part of the cumulative impacts analysis involves determining whether impacts from the project would contribute to ongoing or foreseeable resource trends. Where impacts from the project contribute to regional resource trends, there is a potential for a cumulative impact. The cumulative impacts analysis does not assess all expected environmental impacts from regional projects but only those resulting from both the project and other past, present, and reasonably foreseeable future actions.

Section 4.18.1 discusses regional growth trends and projects that may have cumulative effects when combined with impacts from the actions discussed previously in this PEIR/PEIS. The cumulative impacts on each of the resources described in Chapters 3 and 4 are discussed in Section 4.18.2.

4.18.1 Cumulative Trends and Projects

This section is a discussion of growth and development trends within the planning area and specific projects that could contribute to cumulative impacts. Because of the large geographic region affected by the proposed project, the cumulative analysis focuses more on regional trends in growth and development than on specific projects when identifying past, present, and reasonably foreseeable future actions for the impact analysis.

4.18.1.1 City of Los Angeles

Based on the data presented in Table 4.18-1, the population of Los Angeles is expected to increase 3.5 percent between 2005 and 2010 (Southern California Association of Governments 2006). From 2005 to 2030, the projected population increase is 9.1 percent, for an average annual growth rate of 0.4 percent. The growth in the number of housing units during this same period is expected to average 1.0 percent per year. The growth trends from 2005 to 2030 are illustrated in Figure 4.18-1.
Table 4.18-1
Growth Forecasts in the City of Los Angeles

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>3,711,969</td>
<td>3,950,347</td>
<td>4,090,125</td>
<td>4,147,285</td>
<td>4,203,702</td>
<td>4,257,771</td>
<td>4,309,625</td>
</tr>
<tr>
<td>Households</td>
<td>1,276,578</td>
<td>1,311,134</td>
<td>1,372,873</td>
<td>1,438,731</td>
<td>1,505,615</td>
<td>1,571,712</td>
<td>1,637,475</td>
</tr>
<tr>
<td>Employment</td>
<td>1,781,863</td>
<td>1,800,766</td>
<td>1,994,358</td>
<td>2,057,435</td>
<td>2,117,623</td>
<td>2,172,642</td>
<td>2,223,338</td>
</tr>
</tbody>
</table>

Source: SCAG 2004

Based on the data in Table 4.18-2, the estimated 2004 population of the nine community plan areas was 1,207,808. Across eight of the community plan areas, excluding Hollywood, the population is forecasted to increase from 985,114 (2004) to 1,089,352 (2010), an increase of 10.6 percent, equal to an average annual growth of 1.8 percent. For six community plan areas, the 2004 to 2010 increase in the number of housing units is 11.2 percent, with an average annual growth rate of 1.9 percent.
Table 4.18-2
Population and Housing Growth Trends Throughout the Planning Area

<table>
<thead>
<tr>
<th>Community Plan Area</th>
<th>2004 Population</th>
<th>2010 Population</th>
<th>Percent Change</th>
<th>2004 Housing Units</th>
<th>2010 Housing Units</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boyle Heights</td>
<td>90,902</td>
<td>122,092</td>
<td>34.3%</td>
<td>22,665</td>
<td>29,266</td>
<td>29.1%</td>
</tr>
<tr>
<td>Canoga Park</td>
<td>177,701</td>
<td>200,931</td>
<td>13.1%</td>
<td>62,174</td>
<td>72,946</td>
<td>17.3%</td>
</tr>
<tr>
<td>Central City</td>
<td>28,639</td>
<td>34,765</td>
<td>21.4%</td>
<td>5,465</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Hollywood</td>
<td>222,694</td>
<td>N/A</td>
<td>N/A</td>
<td>100,606</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Northeast Los Angeles</td>
<td>255,301</td>
<td>267,973</td>
<td>5.0%</td>
<td>75,848</td>
<td>76,551</td>
<td>0.9%</td>
</tr>
<tr>
<td>Reseda</td>
<td>105,716</td>
<td>109,678</td>
<td>3.7%</td>
<td>34,365</td>
<td>38,817</td>
<td>12.9%</td>
</tr>
<tr>
<td>Sherman Oaks</td>
<td>77,785</td>
<td>90,582</td>
<td>16.4%</td>
<td>40,602</td>
<td>45,401</td>
<td>11.8%</td>
</tr>
<tr>
<td>Silver Lake</td>
<td>81,114</td>
<td>94,900</td>
<td>17.0%</td>
<td>29,318</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Van Nuys</td>
<td>167,956</td>
<td>168,431</td>
<td>2.8%</td>
<td>59,039</td>
<td>64,851</td>
<td>9.8%</td>
</tr>
</tbody>
</table>


4.18.1.2 Boyle Heights Community Plan Area
The 2004 estimated population was 90,902, and the estimated number of housing units was 22,665 (City of Los Angeles 2006a). The 2010 projections for this planning area are a population of 122,092, employment of 34,683, and 29,266 housing units (City of Los Angeles 1998b).

4.18.1.3 Canoga Park/Winnetka/Woodland Hills/West Hills Community Plan Area
The 2004 estimated population was 177,701, and the estimated number of housing units was 62,174 (City of Los Angeles 2006a). The 2010 population of this planning area is projected to be 200,931, with a total of 72,946 housing units (City of Los Angeles 1993).

4.18.1.4 Central City Community Plan Area
The 2004 estimated population was 28,639, and the estimated number of housing units was 5,465 (City of Los Angeles 2006a). The expected 2010 population of this planning area is 34,765 (City of Los Angeles, undated).

4.18.1.5 Northeast Los Angeles Community Plan Area
The 2004 estimated population was 255,301, and the estimated number of housing units was 75,848 (City of Los Angeles 2006a). The 2010 population of this planning area is projected to be 267,973, with a total of 76,551 housing units (City of Los Angeles 1992c).

4.18.1.6 Reseda/West Van Nuys Community Plan Area
The 2004 estimated population was 105,716, and the estimated number of housing units was 34,365 (City of Los Angeles 2006a). The 2010 projections for this planning area are a population of 109,678, employment of 77,981, and 38,817 housing units (City of Los Angeles 1994).

4.18.1.7 Sherman Oaks/Studio City/Toluca Lake/Cahuenga Pass Community Plan Area
The 2004 estimated population was 77,785, and the estimated number of housing units was 40,602 (City of Los Angeles 2006a). The 2010 projections for this planning area are a population of 90,582, employment of 55,810, and 45,401 housing units (City of Los Angeles 1992a).
4.18.1.8 Silver Lake/Echo Park/Elysian Valley Community Plan Area
The 2004 estimated population was 81,114, and the estimated number of housing units was 29,318 (City of Los Angeles 2006a). The 2010 projections for this planning area are a population of 94,900 and employment of 21,037 (City of Los Angeles 1992b).

4.18.1.9 Van Nuys/North Sherman Oaks Community Plan Area
The 2004 estimated population was 167,956, and the estimated number of housing units was 59,039 (City of Los Angeles 2006a). The 2010 projections for this planning area are a population of 168,431, employment of 86,799, and 64,851 housing units (City of Los Angeles 1998a).

4.18.1.10 Los Angeles State Historic Park
In 2005, California State Parks prepared a general plan and draft EIR for developing the Los Angeles State Historic Park. An interim park was opened in September 2006 and includes a natural amphitheater for community events, a multiuse plaza, approximately four acres of open turf area for informal recreation and events, temporary classroom structures, interpretive panels, and walking trails. Planning efforts to complete a “permanent” park are ongoing.

4.18.1.11 Rio de Los Angeles State Park
California State Parks prepared a general plan and draft EIR for developing a park at the Taylor Yard site, about 2.5 miles north of downtown. The general plan is a guide for future development, parkland acquisition, and construction of trails, parks, and other public facilities. Construction of the park began in January 2005. Facilities include an amphitheater, soccer fields, tennis courts, baseball fields, trails, play areas, natural areas, and picnic facilities.

4.18.1.12 Los Angeles and San Gabriel Rivers Watershed Projects
The Corps initiated a feasibility study in 2000, in partnership with the LACDPW. The objective of the study is to gather and evaluate available information, to develop a GIS database, to identify three proposed multiobjective project sites, and to develop a framework for an integrated basin management plan in the Los Angeles County drainage area. The Corps and LACDPW are investigating solutions to flood control problems, while addressing environmental degradation.

4.18.1.13 Arroyo Seco Watershed Management and Restoration Plan
The purpose of this project is to develop a plan to manage and restore water quality and habitat in the Arroyo Seco watershed. The plan will focus on two key elements covered by the Arroyo Seco Watershed Restoration Feasibility Study (ASWRFS), water quality and habitat, and will enhance the previous recommendations by subjecting them to in-depth technical analysis and will present more detailed project descriptions. Like the ASWRFS, the plan includes a series of recommended projects, but it also describes the contributions these projects will make to water quality and habitat improvement. It also prioritizes the projects, providing a clear road map for governmental agencies and organizations looking to improve water quality and habitat in the Arroyo Seco.

4.18.1.14 Green Visions Plan
This is a joint venture between the University of Southern California and the region's land conservancies, including the Rivers and Mountains Conservancy, Santa Monica Mountains Conservancy, Coastal Conservancy, and Baldwin Hills Conservancy. The mission of the Green Visions Plan for 21st Century
Southern California is to provide a guide to habitat conservation, watershed health and recreational open space for the Los Angeles metropolitan region and to design planning and decision support tools to nurture a living green matrix for southern California. Their goals are to protect and restore natural areas, to restore natural hydrological function, to promote equitable access to open space, and to maximize support via multiuse facilities.

4.18.1.15 2005 Los Angeles Urban Water Management Plan
The Urban Water Management Plan serves as the City’s master plan for water supply and resources management. The plan addresses how the City will contend with the following:

- Pursue cost-effective water conservation and recycling projects to increase supply reliability and offset increases in water demand due to growth and environmental enhancements;
- Protect groundwater supplies from contamination and provide treatment to optimize their use;
- Ensure access to reliable and affordable supplemental water supplies through active and effective representation at the Metropolitan Water District of Southern California;
- Maintain the operational integrity of the Los Angeles Aqueduct and the City’s water distribution system; and
- Secure needed funds, including outside funding, to develop alternative supplies, such as conservation and recycling projects, and resource management programs.

4.18.1.16 Los Angeles Integrated Resources Plan
This plan describes the wastewater, recycled water, and runoff systems in the City of Los Angeles, identifies system inadequacies based on the needs projected for 2020, and provides recommended alternatives to address the future needs of the systems. The City of Los Angeles owns and operates four wastewater treatment plants and water reclamation plants that manage the wastewater generated in the City of Los Angeles and other areas in neighboring jurisdictions. Future population increases in the City of Los Angeles and its service areas would result in increased wastewater flows that must be managed safely. This plan and EIR address the alternatives to manage the facilities effectively.

4.18.1.17 Integrated Regional Water Management Plan
Los Angeles County is preparing an integrated water management plan to define a clear vision and direction for the sustainable management of water resources in the Greater Los Angeles County Region for the next 20 years. The plan presents the basic information regarding possible solutions and the costs and benefits of those solutions.

4.18.2 Cumulative Impacts

4.18.2.1 Agricultural Resources
There are two designated agricultural resource sites in the River Corridor; they are both upstream of Sepulveda Basin. Because of the scarcity of agricultural resources in the River Corridor, any cumulative adverse impacts to these two sites would be considered high and potentially significant. No potential impacts on agricultural resources in the Canoga Park Opportunity Area were identified from implementing either of the two LARRMP alternative revitalization configurations. Therefore, the LARRMP is not expected to contribute to any potential cumulative impacts to agricultural resources in the River Corridor.
4.18 Cumulative Projects and Impacts

4.18.2.2 Air Quality

Typically, cumulative air quality impacts can occur when multiple emission sources affect the same geographic area simultaneously or when sequential projects extend the duration of air quality impacts on a given area over a long period. Potential sources of fugitive dust (contributing to local PM$_{10}$ levels) include construction, vehicle traffic on unpaved roads or off-road areas, and wind erosion from areas with exposed soils. Vehicles associated with short-term construction and potential increased traffic in the long term would contribute to NOx, ROG, CO, and PM$_{10}$ emissions. ROG form ozone gas (O$_3$) when they react with nitrogen oxides. Potential health risks with NOx and ROG include chronic pulmonary fibrosis, breathing difficulties, and lung tissue damage. CO could cause health problems and reduced mental alertness.

There could be other construction projects occurring concurrently with or in proximity to future LARRMP revitalization projects as they are implemented over the LARRMP near-term and long-term planning periods. Short-term high and potentially significant cumulative air quality impacts from construction-related fugitive dust are possible if LARRMP projects were to occur simultaneously with other construction projects or with ongoing emission sources in proximity. Because the South Coast Air Basin is classified as nonattainment for federal and state PM$_{10}$ standards, emissions from cumulative projects would affect the local project area and vicinity. Cumulative impacts would likely be reduced to less than significant levels because project proponents would be expected to use best management practices (such as dust abatement) and ensure that their projects comply with air quality standards. Anticipated long-term cumulative increases in vehicular traffic that may accompany implementation of some revitalization measures, such as new parks, would have an overall low incremental adverse effect on air quality in the study area.

4.18.2.3 Geology, Soils, Climate, and Seismic Hazards

Moderate to high cumulative impacts related to geology, soils, and seismic hazards are possible. Most of the study area is within a liquefaction zone. Measures should be taken to mitigate potential geologic/seismic hazards and to control erosion. Soil erosion and subsequent impacts to air and water quality could occur due to the extensive amount of ground clearing and earthwork involved with construction of the project. This could potentially have cumulative effects to water quality parameters downstream. There would be an increase in pedestrian bridges, underpasses, and pedestrian/bike trails. Therefore, design and construction of facilities should adhere to local building codes to ensure public safety. Construction work would also occur near several freeway bridges, and appropriate measures should be taken to ensure that the integrity of the existing roads and bridge structures is maintained.

4.18.2.4 Hydrology, Floodplains, and Water Quality

Potential cumulative impacts ranging from low to high are possible. There is a high potential for extensive soil erosion from wind and stormwater runoff. Eroded soils could have potentially significant cumulative effects to water quality. Trash entering the river could also increase as people have more access to the river and area streams. This trash adversely affects wildlife as well as public health and aesthetics. Vegetation within the river channel could be uprooted during high water events, becoming entangled on bridge pilings and inhibiting water flow. On the beneficial side, the increase in parks and open space and the greening of streets and biofiltration areas inherent in the LARRMP would help reduce the amount of impermeable surface area in the River Corridor, and vegetation features would help improve water quality.
4.18.2.5 Mineral Resources
The alternatives would result in negligible impacts on sand and gravel deposits and underground oil and gas fields, so there would be no cumulative impacts on mineral resources expected with the LARRMP.

4.18.2.6 Biological Resources
Overall, potential net cumulative long-term impacts on biological resources associated with the LARRMP are expected to be beneficial. Implementing the LARRMP measures would increase the amount of fish and wildlife habitat; provide greater ecological/biological benefits; aid in linking isolated habitats; help increase the amount of open space; help expand species diversity; and reduce the amount of impermeable surface area in the River Corridor. However, construction involved in implementing some of the LARRMP measures would require large amounts of excavation and the subsequent disposal of the materials. If these projects were developed at the same time that other planned or foreseeable projects were under construction in the same area, short-term cumulative impacts to existing biological resources could be high and potentially significant. With proper planning and coordination with resource agencies and land managers, potential impacts could be reduced to less than significant levels. Adverse impacts on wetlands and higher value habitat in the stream channel would be offset by creating and enhancing these habitats. Temporary adverse cumulative impacts on wetlands and higher value habitat in the stream channel would be offset by creating and enhancing such habitats at the site.

4.18.2.7 Land Use
As more sections of the channel are modified over time, there is a potential for high and potentially significant cumulative land use impacts throughout the River Corridor from expansion of the river ROW. Many of the open space development measures proposed at the five opportunity areas involve conversion of existing land uses to uses for parks and open space. The LARRMP revitalization measures within the Canoga Park Opportunity Area could result in high and potentially significant impacts in the study area from converting Industrial, Public Service, Commercial, and Multifamily Residential land uses. Implementing the LARRMP revitalization measures within the River Glen Opportunity Area could result in high to significant impacts from converting Industrial and Public Service land uses. The LARRMP revitalization measures at the Taylor Yard Opportunity Area could result in high to significant impacts in the study area from converting Industrial, Public Service, Commercial, and Residential land uses. The LARRMP revitalization measures within the Chinatown-Cornfields Opportunity Area could result in high and potentially significant impacts in the study area from converting Industrial, Public Service, Commercial, and Multifamily Residential land uses. The LARRMP revitalization measures within the Downtown Industrial Opportunity Area could result in high and potentially significant impacts in the study area from converting Industrial, Public Service, Commercial, and Multifamily Residential land uses.

Collectively and cumulatively, these land uses changes may result in high and potentially significant cumulative land use impacts. Impacts on Industrial land use are a focused issue within the City of Los Angeles and many of the communities within the River Corridor. Encroachment of other uses poses the greatest challenge to the continued viability of industry in this area. As the river's value as a recreational resource increases, the area is expected to become a increasingly desirable place to live and work. The opportunity area may experience growing pressure for coveted live/work space, a trend seen in other industrial areas of the city. This interest must be balanced with City of Los Angeles policy to maintain industrial land for industrial use. As revitalization measures are considered for implementation, cumulative
land use impacts in the opportunity areas, the community plan areas, and the River Corridor should be analyzed.

4.18.2.8 Recreation
Implementation of future LARRMP river channel and open space modification projects in the River Corridor could contribute to moderate to high cumulative impacts on recreation demand at existing parks and recreation facilities in their vicinity. Site-specific analyses will be required to assess the significance of any impacts on demand for recreation and park services, evaluate the capacity of available resources, identify appropriate mitigation to reduce impacts to less than significant levels, and identify any other effects related to access to or use of recreational facilities in the River Corridor. The revitalization measures would partially offset potentially adverse impacts by providing additional recreational resources, capacity, and opportunities throughout the River Corridor as generally identified as a need in Community Plans throughout the corridor.

The LARRMP revitalization measures are expected to be implemented over an extended time frame and at various locations along the 32-mile-long River Corridor. Continued implementation of measures over time could result in significant cumulative beneficial recreation impacts for the River Corridor and the Cities of Los Angeles, Burbank, and Glendale. All communities in the River Corridor have documented the need for more parks and open space. The LARRMP could provide the implementation framework for the Los Angeles River bikeway network approved in the City of Los Angeles’ Transportation Element of the General Plan.

4.18.2.9 Noise
Cumulative noise impacts typically occur when multiple projects affect the same geographic areas simultaneously or when sequential projects extend the duration of noise impacts on a given area over a longer period. Noise impacts are primarily localized because sound levels decrease relatively quickly with increasing distance from the source. Cumulative noise impacts from implementing the proposed LARRMP revitalization measures, together with other foreseeable projects in the River Corridor, would result primarily from temporary construction activities. The potentially highest levels of cumulative noise impacts would take place if several development projects were to take place at the same time and be in fairly close proximity. However, these increases would be due to construction and would be temporary and intermittent.

4.18.2.10 Public Health and Safety
There would be minimal to low potential cumulative impacts involving HTRW, school safety, airport operations safety, wildfire, methane zones, and infectious diseases associated with implementation of LARRMP future projects. However, because implementation of the LARRMP revitalization measures and other similar projects in the foreseeable future would increase the opportunities for the public to interact with the river, the cumulative risk of accidental drowning or water-related injury would increase. This risk would be greatest during and following flooding. On this basis, high and potentially significant adverse cumulative impacts would be associated with Los Angeles River Water Safety.

4.18.2.11 Transportation
Specific traffic volume projections should be developed for those future LARRMP projects in locations where other planned projects could cause substantial increases in traffic. In such cases, the potential net increase in traffic from future LARRMP projects should be determined “with project” and “without project” to determine if the cumulative impacts from the proposed project would be significant. Future plans in the
LARRMP project areas include a TEA-21 project to upgrade the southern terminus of SR-2 and Glendale Boulevard, and the $898 million Metro Gold Line Eastside Extension project.

**4.18.2.12 Utilities and Infrastructure**
The continued population and economic growth of Los Angeles will require commensurate growth in infrastructure and utility capacity. The River Corridor will continue to be used as a utility corridor and as a conduit for stormwater. The increase in demand for power and telecommunications will likely result in replacing, upgrading, and installing new transmission lines. Some of these replacements, upgrades, and installations will take place in the River Corridor and will be in addition to, or parallel with, the movement of any lines required by expanding the river channel.

**4.18.2.13 Socioeconomics**
The LARRMP revitalization measures are expected to be implemented over an extended time frame and at various locations along the 32-mile-long River Corridor. Continued implementation of measures over time could result in high and potentially significant cumulative socioeconomic impacts for the River Corridor and the Cities of Los Angeles, Burbank, and Glendale. Future socioeconomic impact analysis should be conducted in association with site-specific implementation studies to evaluate to what level of significance proposed measures contribute to cumulative socioeconomic impacts in the community area, the River Corridor, and the Los Angeles metropolitan area. Based on these analyses, if significant levels of impacts are anticipated, suitable mitigation actions should be identified to reduce impacts to below significant levels.

Implementation of LARRMP revitalization measures could result in increased residential and economic development adjacent to existing communities. The development encouraged in the LARRMP is intended to promote the river as an economic asset to the adjacent established communities. The development is expected to be relatively small in scale and is not expected to result in large increases in employment or population growth in excess of existing official local projections. Prior to implementation, future site-specific impact analyses should consider the cumulative socioeconomic impacts of proposed revitalization measures together with other planned actions, programs, and policies that would affect the River Corridor. Cumulative impact analysis should address any planned projects through the Greater Los Angeles County Integrated Water Resources Management Plan and any other ongoing efforts that are focused on restoration and development associated with the River Corridor and vicinity.

Future impact analyses at the project level should also address any potential socioeconomic impacts and cumulative impacts associated with effects on affordable housing in the River Corridor. There are approximately 40 affordable housing developments within the five opportunity areas alone that provide over 2,000 affordable housing units. Any potential displacement of affordable housing units would require socioeconomic impact analysis and identification of mitigation measures to reduce the impact to less than significant levels.

Implementing either of the two alternatives within the Canoga Park Opportunity Area could result in cumulative impacts in the study area from displacing Industrial, Public Service, Commercial, and Multifamily Residential land uses.

Either of the two alternatives within the River Glen Opportunity Area could result in cumulative socioeconomic impacts from displacing industry and public services. Future impact analyses should also
address cumulative impacts of the effects on affordable housing in the opportunity area. Currently there are four affordable housing developments in the opportunity area, providing 24 affordable housing units.

The LARRMP revitalization measures within the Taylor Yard Opportunity Area could result in cumulative impacts by displacing Industrial, Public Service, Commercial, and Residential land uses.

Either of the alternatives within the Chinatown-Cornfields Opportunity Area could result in cumulative impacts in the study area from displacing Industrial, Public Service, Commercial, and Multifamily Residential lands.

Implementing either of the two alternatives within the Downtown Industrial Opportunity Area could result in cumulative impacts from displacing Industrial lands.

**4.18.2.14 Environmental Justice**

Potential cumulative environmental justice impacts on minority and low-income populations and children’s health and safety could be high and potentially significant. The influence of developing foreseeable future projects in the River Corridor, combined with implementing future LARRMP revitalization measures and the configurations of measures at each opportunity area, could result in air quality and noise impacts and the displacement of affordable housing units. However, consideration of environmental justice issues and children’s safety should occur during proponents’ review of cumulative projects. It would be most likely that projects’ reviews would identify best management practices and mitigation actions to reduce impacts on minority and low-income population and children health and safety.

**4.18.2.15 Cultural Resources**

Cumulative impacts occur when impacts from proposed actions combine with similar impacts from other past, present, or reasonably foreseeable actions in a similar geographic area. The cumulative planning area for the proposed LARRMP revitalization measures is the 32-mile River Corridor and the five opportunity areas. The measures would be implemented over a very long period, and further site-specific identification and impact analyses would be conducted. Five to 20 years is considered the near-term planning period and 50 to 100 years the long-term period. Implementing the proposed LARRMP revitalization measures would result in the potential for both beneficial and adverse impacts on cultural and paleontological resources in the planning area, but many adverse impacts would be mitigated and would not be significant. In some cases, mitigation measures may not be adequate to avoid significant negative impacts.

Past actions in the planning area have resulted in the loss or destruction of the spatial integrity of prehistoric and historic archaeological resources through ground-disturbing activities. Paleontological resources may have been lost through excavation, as well. Historic buildings and structures have been lost or impacted due to demolition, substantial alteration, neglect, or incompatible construction.

The impacts of current and future actions in the planning area that are not subject to extensive cultural or historic resource review or result from neglect or vandalism would continue whether the proposed LARRMP revitalization measures were implemented or not. Revitalization may stimulate the adaptive reuse, rehabilitation, or restoration of adjacent historic buildings and structures, but associated economic development may encourage removal of historic buildings and structures or incompatible construction.
However, much of the current and future development would be subject to federal, state, and local reviews that include some level of consideration and protection for cultural and paleontological resources.

The planning area is overlain by over 15 current plans and agency proposals that are subject to NEPA and CEQA review. Over the near- and long-term planning horizon, it is reasonably foreseeable that many future projects and planning processes would address potential impacts on cultural and paleontological resources through mitigation. While mitigations would be developed after further identification and effects analysis, significant impacts may not be avoided in all cases.

All specific LARRMP revitalization measures would be conducted in the context of additional environmental and cultural resource compliance review designed to identify cultural and paleontological resources, assess impacts, and avoid adverse effects. Significant negative impacts on cultural and paleontological resources resulting from LARRMP revitalization measures are possible but in many cases are expected to be mitigated to less than significant. Positive impacts on these resources are anticipated. When combined with other past, present, or future impacts, the cumulative impacts resulting from the proposed LARRMP revitalization measures are expected to be less than significant, but significant impacts that cannot be reduced through mitigation are possible.

**4.18.2.16 Aesthetic Resources**

The alternatives would result in both beneficial and adverse impacts on visual resources. Cumulative projects are assumed to involve projects similar to those anticipated under the alternatives. Consequently, there would be both beneficial and adverse cumulative impacts on visual resources. An example of a beneficial impact is replacing developed areas with natural areas and open space, and an example of an adverse impact is erecting new sources of nighttime light or glare.
### 4.19 SUMMARY OF POTENTIAL IMPACTS AND MITIGATION

A summary of potential impacts, mitigation actions, and BMPs for each of the sixteen resource areas evaluated in this PEIR/PEIS is presented in Table 4.19-1, below. The table also indicates whether the predicted levels of potential impacts identified on each resource area are low, moderate, or high, and whether any of the foreseeable impacts could be significant.
### Table 4.19-1
Summary Table

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agricultural Resources</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| River Channel Modifications | ROW expansion in area just upstream of Sepulveda Basin could result in potential loss of designated agricultural lands. | Low | Site-specific impact studies would be required to assess the significance of agricultural resource impacts of any future proposed LARRMP revitalization measures in this area that would convert agricultural lands. The findings of these studies are required prior to identifying appropriate mitigation actions for these future projects. Appropriate mitigation actions will vary depending on the scale of the proposed conversion and the extent of the impact. Generally mitigation measures will be identified to:  
- Avoid agricultural resource impacts altogether by not taking a certain action or parts of an action;  
- Minimize agricultural resource impacts by limiting the degree or magnitude of the action and its implementation;  
- Rectify the agricultural resource impacts by repairing, rehabilitating, or restoring the impacted land use;  
- Reduce or eliminate the agricultural resource impacts over time by preservation and maintenance operations; and  
- Compensate for the agricultural resource impacts by replacing or providing substitute resources. |
| Open Space Developments | Trail, paths, and bikeways as part of the River Loop in the area just upstream of Sepulveda Basin could result in loss of existing agricultural lands. | Low |                                               |
| Canoga Park Opportunity Area | No potential impacts were identified. | None |                                               |
| River Glen Opportunity Area | No potential impacts were identified. | None |                                               |
| Taylor Yard Opportunity Area | No potential impacts were identified. | None |                                               |
| Chinatown-Cornfields Opportunity Area | No potential impacts were identified. | None |                                               |
### Table 4.19-1
Summary Table

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
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</thead>
<tbody>
<tr>
<td>Downtown Industrial Opportunity Area</td>
<td>No potential Impacts were identified.</td>
<td>None</td>
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<tr>
<td><strong>Air Quality</strong></td>
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</tbody>
</table>
| River Channel Modifications                                                      | Short-term construction activities and long-term potential increase in traffic would result in increases in fugitive dust and other criteria pollutants. | Short term high and potentially significant. Long term low to moderate When future LARRMP implementation projects are undertaken, potential adverse air quality impacts associated with construction of these projects can be reduced through the application of the following best management practices:  
  - Minimize the area disturbed by clearing, earthmoving, or excavating;  
  - Use water trucks or sprinkler systems in sufficient quantities to contain fugitive dust on-site; increased watering frequency should be required whenever wind speeds exceed 15 miles per hour; reclaimed (nonpotable) water should be used whenever possible;  
  - Spray all dirt stockpile areas daily or as needed;  
  - Implement permanent dust control measures, such as revegetating and landscaping, as soon as possible following completion of any soil-disturbing activities.  
  - Treat ground areas that are planned to be exposed for at least a month after initial grading with a fast-germinating native grass seed and watering until vegetation is established;  
  - Stabilize all disturbed soil areas not subject to revegetation using state- and federally approved chemical soil binders;  
  - Pave all roadways, driveways, walkways (if so designed) as soon as possible; similarly, finishing building pads as soon as possible after grading unless seeding or soil binders are used;  
  - Limit construction vehicle speeds to 15 miles per hour on any unpaved surface at the construction site;  
  - Cover all trucks hauling dirt, sand, soil, or other loose materials or maintaining at least two feet of freeboard (minimum vertical distance between top of load and top of trailer), in accordance with California Vehicle Code Section  
| Open Space Developments                                                          |                                  |                                                                                                               |
| Canoga Park Opportunity Area                                                     | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | Short term high and potentially significant. Long term low to moderate                                    |
| River Glen Opportunity Area                                                       | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | Short term high and potentially significant. Long term low to moderate                                    |
| Taylor Yard Opportunity Area                                                      | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | Short term high and potentially significant. Long term low to moderate                                    |
| Chinatown-Cornfields Opportunity Area                                            | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | Short term high and potentially significant. Long term low to moderate                                    |
### Table 4.19-1
#### Summary Table

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Level of Impact Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downtown Industrial Opportunity Area</td>
<td>• Install wheel washers where vehicles enter and exit unpaved roads onto streets or washing off trucks and equipment leaving the site;</td>
</tr>
<tr>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td>• Sweep streets at the end of each day if visible soil is carried onto adjacent paved roads; use water sweepers with reclaimed water, where feasible; and</td>
</tr>
<tr>
<td></td>
<td>• Have a dust control program and a monitor on-site to oversee watering or other measures to prevent off-site transportation of dust; contact information for the monitor should be provided to the SCAQMD.</td>
</tr>
<tr>
<td>Geology, Soils, and Seismic Hazards</td>
<td></td>
</tr>
<tr>
<td>River Channel Modifications</td>
<td>Conform to Los Angeles Building Code and Planning and Zoning Codes and incorporating proven design criteria into project features that account for potential seismic hazard risks.</td>
</tr>
<tr>
<td>Concrete and earth work would result in wind and stormwater erosion, local seismic hazards, impacts to soils in liquefaction zones. Extensive erosion and subsequent impacts to air and water quality could occur due to the substantial amount of ground clearing and earthwork involved with some projects. Soils would be subject to erosion until construction is complete and vegetation becomes re-established. Most of the River Corridor from Canoga Park to downtown Los Angeles is in a liquefaction zone. As such, soils have a high potential of being unstable and liquefying, especially when disturbed and during rainy/wet periods.</td>
<td>Moderate to High</td>
</tr>
<tr>
<td>Open Space Developments</td>
<td></td>
</tr>
<tr>
<td>Impacts on soils in liquefaction zones and on disturbed soils that would be subject to erosion would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td>Moderate to High</td>
</tr>
<tr>
<td>Canoga Park Opportunity Area</td>
<td>As specific LARRMP implementation projects are undertaken, site specific geologic and soil investigations should be conducted for each project, and the results used in the proper design of project features. A stormwater pollution control plan should be developed for each project site to include best management practices to help control erosion and soil loss. Design of specific project features should meet current design standards related to seismic hazards; to ensure public safety. Mitigation actions would be similar at all project locations within the River Corridor and the five opportunity areas. The portion of the River Corridor from Canoga Park downstream to the Chinatown-Cornfields Opportunity Area is in a liquefaction zone. Mapped faults are in the Glendale Narrows, primarily affecting the River Glen Opportunity Area. The following list of mitigation measures is recommended for all future projects to avoid and minimize potential adverse impacts related to geology, soils, and seismic hazards:</td>
</tr>
<tr>
<td>River Glen Opportunity Area</td>
<td>• Conforming to Los Angeles Building Code and Planning and Zoning Codes and incorporating proven design criteria into project features that account for potential seismic hazard risks.</td>
</tr>
<tr>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments. Due to the presence of</td>
<td>• Performing on-site geologic and soil investigations by a</td>
</tr>
</tbody>
</table>

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Los Angeles, California  
April 2007  
4-230
### Table 4.19-1
Summary Table

<table>
<thead>
<tr>
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<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>geologic hazards in the area (faults and liquefaction zone), work could cause or accelerate hazards that could result in substantial damage to structures or expose people to substantial risk of injury.</td>
<td>Moderate to High</td>
<td>licensed geologist.</td>
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<tr>
<td></td>
<td></td>
<td>• Utilizing excavated material to the extent practical.</td>
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<td></td>
<td></td>
<td>• Coordinating work with local residents to keep them informed and to minimize conflicts, especially involving road crossings and blasting.</td>
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<tr>
<td></td>
<td></td>
<td>• Coordinating work with state highway and local road departments to ensure the integrity of roads and bridges is maintained, especially at the River Glen Opportunity Area.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Developing and implementing site-specific erosion control plans.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Revegetating exposed soils as soon as feasible after grading or construction.</td>
</tr>
<tr>
<td>Taylor Yard Opportunity Area</td>
<td>Moderate to High</td>
<td></td>
</tr>
<tr>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chinatown-Cornfields Opportunity Area</td>
<td>Moderate to High</td>
<td></td>
</tr>
<tr>
<td>Impacts on soils in liquefaction zones and on disturbed soils that would be subject to erosion would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Downtown Industrial Opportunity Area</td>
<td>Moderate to High</td>
<td></td>
</tr>
<tr>
<td>Impacts on soils in liquefaction zones and on disturbed soils that would be subject to erosion would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Hydrology, Floodplain, and Water Quality

<p>| River Channel Modifications                                                                 | Short term high and potentially significant water quality impacts. Low to moderate impacts regarding vegetative debris and trash | Mitigation actions are similar at all future project locations within the River Corridor and the five opportunity areas. Of greatest concern is maintaining flood control functions, including during construction. Compromising existing flood control protection could have very significant adverse impacts, including the loss of life. A flood could have direct and devastating impacts on millions of people. With appropriate analysis, design, and construction, adequate flood protection can be maintained. This project could also provide substantial improvements to area water quality parameters, thus improving the health and productivity of the river. The following mitigation measures are recommended for all future projects to avoid and minimize adverse impacts related to hydrology, floodplains, and water quality: |
| Construction sites could increase sedimentation and erosion rates by removing vegetation and concrete. Exposed soils during construction could erode and adversely affect water quality. Extensive erosion and subsequent impacts to air and water quality could occur, especially where considerable amounts of ground clearing and earthwork were required. Soils would be subject to erosion until construction is complete and vegetation becomes re-established. Increased vegetation in the channel would also increase the amount of woody material and vegetative debris that could be washed downstream during high-water events. This material would likely get washed into the river. | • Perform hydrologic modeling and analysis to ensure flood protection is maintained. |</p>
<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>caught on bridge pilings and would restrict water flow. Project features that</td>
<td></td>
<td>• Remove or minimize the number of buildings and other facilities within flood hazard areas so that the floodway open space is preserved or enhanced;</td>
</tr>
<tr>
<td>attract people to the river could also result in more trash being thrown on the</td>
<td></td>
<td>• Incorporate and design stormwater management facilities to reduce or retard the amount of peak runoff and to filter stormwater runoff;</td>
</tr>
<tr>
<td>ground, eventually making its way into area streams. This trash could adversely</td>
<td></td>
<td>• Include kiosks with environmental education information on the effects and costs of littering;</td>
</tr>
<tr>
<td>affect wildlife, public health, and aesthetics.</td>
<td></td>
<td>• Establish erosion control plans;</td>
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<td></td>
<td></td>
<td>• Revegetate exposed soils as soon as feasible after grading or construction; and</td>
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<td></td>
<td></td>
<td>• Incorporating BMPs, such as siltation fences and hay bales, during construction to minimize soil erosion from runoff.</td>
</tr>
<tr>
<td>Open Space Developments</td>
<td></td>
<td>• Water quality in the river should be tested at locations where possible contamination is suspected.</td>
</tr>
<tr>
<td>Impacts would be similar to River Channel Modifications. Also, recreational</td>
<td></td>
<td>• The DTSC, DHS, and EPA should be contacted to help identify the best water quality sampling locations;</td>
</tr>
<tr>
<td>fields, especially golf courses, can create additional water quality concerns</td>
<td></td>
<td>• Incorporate best management practices designed to ensure control of potential pollutant loading, consulting with Regional Water Quality Control Board as appropriate;</td>
</tr>
<tr>
<td>due to the amount of fertilizer and pesticides used.</td>
<td></td>
<td>• Employ the Stormwater Best Management Practice Handbooks, published by the California Stormwater Quality Association, and other suitable publications for guidance in designing and implementing project-specific construction Stormwater Management Plans;</td>
</tr>
<tr>
<td></td>
<td>Short term high and potentially significant water quality impacts. Low to</td>
<td>• Continue BMPs post-construction to ensure ongoing efficiency and protection of water quality;</td>
</tr>
<tr>
<td></td>
<td>moderate impacts regarding vegetative debris and trash</td>
<td></td>
</tr>
<tr>
<td>Canoga Park Opportunity Area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impacts would be similar to those described under River Channel Modifications</td>
<td>Short term high and potentially significant water quality impacts. Low to</td>
<td></td>
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<tr>
<td>and Open Space Developments.</td>
<td>moderate impacts regarding vegetative debris and trash</td>
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<tr>
<td>River Glen Opportunity Area</td>
<td></td>
<td></td>
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<tr>
<td>Impacts would be similar to those described under River Channel Modifications and</td>
<td>Short term high and potentially significant</td>
<td></td>
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<tr>
<td>Open Space Developments.</td>
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</tbody>
</table>
### Table 4.19-1
**Summary Table**

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>water quality impacts. Low to moderate impacts regarding vegetative debris and trash</td>
<td></td>
<td>• In subsequent construction of Open Space Development Measures such as, walking and bike paths, picnic areas and nearby parking, incorporate the use permeable pavement and other surfaces to reduce stormwater runoff;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• In subsequent construction of Open Space Development Measures, such as recreation fields, golf courses, and other landscaped areas, specific measures should be developed to control and treat irrigation and stormwater runoff that may contain pesticides and fertilizers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The California Regional Water Quality Control Board should be consulted to help define appropriate mitigation measures.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Access roads, maintenance roads, and invert access roads should be constructed in accordance with accepted design standards, and in consultation with Los Angeles County, to ensure that maintenance activities are not unduly hampered, especially during emergencies and high channel flows.</td>
</tr>
<tr>
<td>Taylor Yard Opportunity Area</td>
<td>Short term high and potentially significant water quality impacts. Low to moderate impacts regarding vegetative debris and trash</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chinatown-Cornfields Opportunity Area</td>
<td>Short term high and potentially significant water quality impacts. Low to moderate impacts regarding vegetative debris and trash</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Downtown Industrial Opportunity Area</td>
<td>Short term high and potentially significant water quality impacts. Low to moderate impacts regarding vegetative debris and trash</td>
<td></td>
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</tbody>
</table>
Table 4.19-1
Summary Table

<table>
<thead>
<tr>
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<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Implementing the LARRMP river channel modification, open space development, and reinvestment measures would comply with regulations pertaining to mineral resources and would not result in significant (or even any appreciable) adverse impacts on mineral resources. Therefore, no mitigation actions would be required. However, subsequent environmental reviews at the project level should be conducted to further characterize potential impacts on mineral resources, once specific designs are prepared with additional site details and boundaries and building or structure locations have been determined.</td>
</tr>
<tr>
<td>River Channel Modifications</td>
<td>Low</td>
<td>.Minimal impacts on the availability of sand and gravel resources and gas extraction are expected.</td>
</tr>
<tr>
<td>Open Space Developments</td>
<td>Low</td>
<td>Impacts would be similar to those described under River Channel Modifications.</td>
</tr>
<tr>
<td>Canoga Park Opportunity Area</td>
<td>Low</td>
<td>Impacts would be similar to those described under River Channel Modifications.</td>
</tr>
<tr>
<td>River Glen Opportunity Area</td>
<td>Low</td>
<td>Minimal impacts are expected on the availability of sand, gravel.</td>
</tr>
<tr>
<td>No impacts on oil and gas resources are expected.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taylor Yard Opportunity Area</td>
<td>Low</td>
<td>Minimal impacts are expected on the availability of sand, gravel.</td>
</tr>
<tr>
<td>No impacts on oil and gas resources are expected.</td>
<td></td>
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</tr>
<tr>
<td>Chinatown-Cornfields Opportunity Area</td>
<td>Low</td>
<td>Minimal impacts are expected on the availability of sand, gravel.</td>
</tr>
<tr>
<td>No impacts on oil and gas resources are expected.</td>
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</tr>
<tr>
<td>Downtown Industrial Opportunity Area</td>
<td>Low</td>
<td>Minimal impacts are expected on the availability of sand, gravel.</td>
</tr>
<tr>
<td>No impacts on oil and gas resources are expected.</td>
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</tbody>
</table>
## Table 4.19-1
Summary Table

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>expected.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological Resources</td>
<td></td>
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</tr>
<tr>
<td>River Channel Modifications</td>
<td>Low to high</td>
<td>As specific LARRMP implementation projects are identified and undertaken in the future, site-specific biological surveys would likely need to be conducted to better define biological resources, such as the presence of and potential impacts on wetlands, threatened and endangered species, and higher value habitats. Future project plans and designs would need to be coordinated with appropriate resource agencies and land managers to ensure to the greatest extent possible that high value habitats could be accounted for and their functions and values enhanced. Potential mitigation measures and best management practices for future projects to reduce levels of potential adverse impacts on biological resources include the following:</td>
</tr>
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<td></td>
<td>and potentially</td>
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</tr>
<tr>
<td></td>
<td>significant</td>
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</tr>
<tr>
<td>Open Space Developments</td>
<td>Low to high</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and potentially</td>
<td></td>
</tr>
<tr>
<td></td>
<td>significant</td>
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<tr>
<td>Canoga Park Opportunity Area</td>
<td>Low to high</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and potentially</td>
<td></td>
</tr>
<tr>
<td></td>
<td>significant</td>
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<tr>
<td>River Glen Opportunity Area</td>
<td>Low to high</td>
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<tr>
<td></td>
<td>and potentially</td>
<td></td>
</tr>
<tr>
<td></td>
<td>significant</td>
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</table>

Most of the corridor is of extremely poor habitat quality, especially in areas where the river channel is completely lined with concrete. Low adverse impacts would occur in these areas. High value habitats to include wetlands occur in the Sepulveda Basin and in the area from Griffith Park down to Taylor Yard. Short term, high and potentially significant adverse impacts to high quality habitats would occur during construction (e.g., clearing of vegetation and excavation of soils). However, existing high value habitats such as wetlands would be enhanced or created, offsetting adverse impacts from construction. With proper design and mitigation measures, including coordination with appropriate agencies, adverse impacts can be reduced to less than significant levels.

Potential adverse impacts are similar to those for the river channel modification measures.

Potential adverse impacts are similar to those for the river channel modification measures.

Potential adverse impacts are similar to those for the river channel modification measures.
### Table 4.19-1
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<table>
<thead>
<tr>
<th>Opportunity Area</th>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taylor Yard Opportunity Area</td>
<td>Potential adverse impacts are similar to those for the river channel modification measures.</td>
<td>Low to high and potentially significant</td>
<td>where wetlands exist, incorporating them into project designs and including features to enhance their function and values;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Including kiosks with environmental education information on how to minimize adverse human/wildlife interaction; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Providing increased security patrols and lighting to improve public safety;</td>
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<td></td>
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<td></td>
<td>• Adhering to the county’s Los Angeles River Master Plan Landscaping Guidelines and Plant Palettes (January 2004), which</td>
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<td></td>
<td></td>
<td></td>
<td>requires the use of native drought-tolerant plants that provide habitat for indigenous wildlife and avifauna;</td>
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<td></td>
<td></td>
<td></td>
<td>• Identifying and evaluating potential impacts on associated ecosystems from the development of ponded areas and especially from the periodic release of ponded water; and</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Identifying seasonal restrictions to construction based on bird migration and breeding patterns and other wildlife issues.</td>
</tr>
<tr>
<td>Chinatown-Cornfields Opportunity Area</td>
<td>The area currently has minimal habitat value. Most of it is highly urbanized/developed and there is minimal to no habitat in the river channel, except for algae growing in the wetted portions. Potential construction impacts are short term. Alternative CC-B would involve considerably more work in constructing the island, but no significant adverse impacts are expected from the additional work.</td>
<td>Low to moderate</td>
<td></td>
</tr>
<tr>
<td>Downtown Industrial Opportunity Area</td>
<td>Potential adverse impacts are similar to those for the Chinatown-Cornfields Opportunity Area.</td>
<td>Low to moderate</td>
<td></td>
</tr>
</tbody>
</table>

### Land Use

<table>
<thead>
<tr>
<th>Modifications</th>
<th>ROW expansion might result in inconsistencies with current approved land uses.</th>
<th>High and potentially significant if inconsistent with plans</th>
<th>Site-specific land use impact studies are required to assess the significance of land use impacts of LARRMP revitalization measures before they are implemented. The findings of these studies are required before appropriate mitigation actions are identified for these projects. Appropriate mitigation actions would vary depending on the type of land use impacted and the extent of the impact. Generally, the types of mitigation measures to be identified should include the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>River Channel Modifications</td>
<td>River Channel modifications would impact the configuration of the river channel and could impact inspection and maintenance access roads.</td>
<td>High and potentially significant if inconsistent with plans</td>
<td>• Avoiding land use impacts altogether by not taking a certain action or parts of an action and by developing plans that are consistent with community planning area land use plans;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Minimizing land use impacts by limiting the degree or magnitude of the action and its implementation;</td>
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<td></td>
<td></td>
<td></td>
<td>• Rectifying the land use impact by repairing, rehabilitating, or restoring the impacted land use;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Reducing or eliminating the land use impact over time by</td>
</tr>
<tr>
<td>Open Space Developments</td>
<td>Open space developments could result in inconsistencies or incompatibilities with the adopted land use/density designations.</td>
<td>High and potentially significant if inconsistent with plans</td>
<td></td>
</tr>
<tr>
<td>Canoga Park Opportunity Area</td>
<td>Parks or paseos and promenades creation may require land conversion.</td>
<td>High and potentially significant if inconsistent with plans</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parks, paseos and promenades may result in changes to approved land uses under Alternative CP-A. Alternative CP-B would result in high land use conversion impacts</td>
<td></td>
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</tr>
</tbody>
</table>
### Table 4.19-1
**Summary Table**

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>associated with river channel modifications from the proposed daylighting of Arroyo Calabasas</td>
<td>with plans</td>
<td>• preservation and maintenance operations; • Compensating for the land use impact by replacing or providing substitute resources.</td>
</tr>
<tr>
<td><strong>River Glen Opportunity Area</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expanding the confluence function, developing linear parks and paseos and promenades would result in land use conversion impacts. Expanding the roadway network ROW would result in a reduction in land uses approved for industrial and public facilities.</td>
<td>High and potentially significant if inconsistent with plans</td>
<td></td>
</tr>
<tr>
<td><strong>Taylor Yard Opportunity Area</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potential land use impacts would be associated with open space development measures associated with the proposed linear and riverfront parks, paseos, and promenades, which are proposed on lands currently approved for other Industrial, Public Facilities, and Single-Family Residential uses.</td>
<td>High and potentially significant if inconsistent with plans</td>
<td></td>
</tr>
<tr>
<td><strong>Chinatown-Cornfields Opportunity Area</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potential land use impacts would be associated with Reinvestment measures and open space developments, which are proposed on lands currently approved for other Industrial, Public Facilities, and Multifamily Residential uses.</td>
<td>High and potentially significant if inconsistent with plans</td>
<td></td>
</tr>
<tr>
<td><strong>Downtown Industrial Opportunity Area</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potential land use impacts would be associated with Reinvestment measures and parks which would require reconfiguration and conversion of lands currently approved for Industrial use to Open Space.</td>
<td>High and potentially significant if inconsistent with plans</td>
<td></td>
</tr>
<tr>
<td><strong>Recreation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>River Channel Modifications</strong></td>
<td>Moderate to High</td>
<td>Site-specific studies are required to assess the types and levels of any adverse recreational impacts that could result from LARRMP revitalization projects prior to their future implementation. These studies should address potential direct, indirect, and cumulative impacts. The findings of these studies are required prior to identifying appropriate mitigation actions for these future projects. Appropriate</td>
</tr>
<tr>
<td><strong>Open Space Developments</strong></td>
<td>Moderate to High</td>
<td></td>
</tr>
<tr>
<td>Impacts would be similar to those described under River Channel Modifications.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 4.19-1
Summary Table

<table>
<thead>
<tr>
<th>Opportunity Area</th>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canoga Park</td>
<td>The paseos and promenades measures and the reinvestment measures could result in increased recreation demand in the area.</td>
<td>Moderate to High</td>
<td>This list of mitigation actions would vary, depending on the type of resource impacted and the extent of the impact. Generally mitigation measures will be identified to accomplish the following:</td>
</tr>
<tr>
<td>River Glen</td>
<td>The paseos and promenades measures could result in increasing recreation demand in the area.</td>
<td>Moderate to High</td>
<td>• Avoid recreation resource impacts altogether by not taking a certain action or parts of an action;</td>
</tr>
<tr>
<td>Taylor Yard</td>
<td>The paseos and promenades measures could result in increasing recreation demand in the area.</td>
<td>Moderate to High</td>
<td>• Minimize recreation resource impacts by limiting the degree or magnitude of the action and its implementation;</td>
</tr>
<tr>
<td>Chinatown-Cornfields</td>
<td>The paseos and promenades measures and the reinvestment measures could result in increased recreation demand in the area.</td>
<td>Moderate to High</td>
<td>• Rectify the recreation resource impact by repairing, rehabilitating, or restoring the impacted land use (for example, providing on-site recreational amenities where impacts occur);</td>
</tr>
<tr>
<td>Downtown Industrial</td>
<td>The paseos and promenades measures and the reinvestment measures could result in increased recreation demand in the area.</td>
<td>Moderate to High</td>
<td>• Reduce or eliminate the land use impact over time by preservation and maintenance operations; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Compensate for the recreation impact by replacing or providing substitute resources; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Provide direct support to the Department of Recreation and Parks, such as land, equipment, and funding; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Review all future bikeway proposals for the River Corridor for consistency with guidelines specified for the development of Class I Bikeways;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Review all future landscaping proposals for the River Corridor for consistency with the Los Angeles River Master Plan Landscaping Guidelines and Plant Palettes;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Review all future signage proposals for the River Corridor for consistency with the Los Angeles River Master Plan Sign guidelines; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Review all future proposals for the River Corridor that involve enhancing access for disabled persons for consistency with guidelines developed through the Americans with Disabilities Act.</td>
</tr>
</tbody>
</table>

Los Angeles River Revitalization Master Plan Final PEIR/PEIS
Los Angeles, California
April 2007
### Noise

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Duration</th>
<th>Description</th>
</tr>
</thead>
</table>
| River Channel Modifications                   | Short-term adverse impacts from construction are expected                    | Short term high and potentially significant | General mitigation actions and BMPs to reduce noise levels associated with demolition and construction for LARRMP revitalization projects are as follows:  
- Using enclosures or walls to surround noisy equipment;  
- Installing mufflers on engines;  
- Substituting quieter equipment or construction methods;  
- Minimizing time of operation and locating equipment farther from sensitive receptors;  
- Suspending construction activities between 7:00 PM and 7:00 AM and on weekends or holidays in residential areas; and  
- Requiring contractors to comply with all local sound control and noise level rules, regulations, and ordinances. Additional project-specific abatement actions should be identified, as needed. |
| Open Space Developments                       | Impacts would be similar to those described under River Channel Modifications. | Short term high and potentially significant | |
| Canoga Park Opportunity Area                  | Impacts would be similar to those described under River Channel Modifications. | Short term high and potentially significant | |
| River Glen Opportunity Area                   | Impacts would be similar to those described under River Channel Modifications. | Short term high and potentially significant | |
| Taylor Yard Opportunity Area                  | Impacts would be similar to those described under River Channel Modifications. | Short term high and potentially significant | |
| Chinatown-Cornfields Opportunity Area         | Impacts would be similar to those described under River Channel Modifications. | Short term high and potentially significant | |
| Downtown Industrial Opportunity Area          | Impacts would be similar to those described under River Channel Modifications. | Short term high and potentially significant | |

### Public Health and Safety

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Duration</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>River Channel Modifications</td>
<td>Potential exposure of public and workers to hazardous materials during construction and operation, from materials used, or transported, or from accidental release of pre-existing material discovered on site. Construction equipment or activities could be the accidental ignition source for a fire in a high (assuming BMPs). But, high and potentially significant regarding increased risk</td>
<td>Low</td>
<td>Project-specific reviews would be required to assess potential impacts of any mapped HTRW sites listed in Table 3.11-1. The findings of these reviews would determine appropriate site-specific mitigation actions for these future projects. Mitigation measures could include removing any hazardous materials or wastes from contaminated land prior to construction, or adjusting project location or footprint to</td>
</tr>
</tbody>
</table>
### 4.19 Summary of Potential Impacts and Mitigation

<table>
<thead>
<tr>
<th>Open Space Developments</th>
<th>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</th>
<th>Low (assuming BMPs). But, high and potentially significant regarding increased risk of drowning and water-related injuries.</th>
<th>Mitigation for increased risk of accidental drowning and water-related injury include providing electronic signs, audible warnings, and gates to restrict access during flooding, and increasing police patrol units along the river (minimum of three additional) to help ensure safety of citizens.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canoga Park Opportunity Area</td>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td>Low (assuming BMPs). But, high and potentially significant regarding increased risk of drowning and water-related injuries.</td>
<td>Construction BMPs should include: (a) immediately cleaning up all spills; (b) affixing lids to all containers; (c) compliance with state and federal occupational safety and health codes and regulations; (d) disposing of hazardous waste at a certified landfill; (e) removing all hazardous materials from project site after construction; (f) fencing around site to prevent unauthorized access; (g) maintaining equipment in proper working order; (h) complying with regulations regarding construction in methane or methane buffer zones; and (i) watering project sites to minimize dust.</td>
</tr>
<tr>
<td>River Glen Opportunity Area</td>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td>Low (assuming BMPs). But, high and potentially significant regarding increased risk of drowning and water-related injuries.</td>
<td>Construction BMPs should include: (a) immediately cleaning up all spills; (b) affixing lids to all containers; (c) compliance with state and federal occupational safety and health codes and regulations; (d) disposing of hazardous waste at a certified landfill; (e) removing all hazardous materials from project site after construction; (f) fencing around site to prevent unauthorized access; (g) maintaining equipment in proper working order; (h) complying with regulations regarding construction in methane or methane buffer zones; and (i) watering project sites to minimize dust.</td>
</tr>
<tr>
<td>Taylor Yard Opportunity Area</td>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td>Low (assuming BMPs). But, high and potentially significant regarding increased risk of drowning and water-related injuries.</td>
<td>Construction BMPs should include: (a) immediately cleaning up all spills; (b) affixing lids to all containers; (c) compliance with state and federal occupational safety and health codes and regulations; (d) disposing of hazardous waste at a certified landfill; (e) removing all hazardous materials from project site after construction; (f) fencing around site to prevent unauthorized access; (g) maintaining equipment in proper working order; (h) complying with regulations regarding construction in methane or methane buffer zones; and (i) watering project sites to minimize dust.</td>
</tr>
</tbody>
</table>

Open Space Developments
Fire hazard zone. Increased risk for public to enter river channel during flood stages leading to injury or drowning.

Mitigation:
- Avoid hazards. Soils and water quality in the river should be tested at locations where possible contamination is suspected. The DTSC, DHS, and EPA should be contacted to help identify the best sampling locations.

Open Space Developments
- Construction BMPs should include: (a) immediately cleaning up all spills; (b) affixing lids to all containers; (c) compliance with state and federal occupational safety and health codes and regulations; (d) disposing of hazardous waste at a certified landfill; (e) removing all hazardous materials from project site after construction; (f) fencing around site to prevent unauthorized access; (g) maintaining equipment in proper working order; (h) complying with regulations regarding construction in methane or methane buffer zones; and (i) watering project sites to minimize dust.
### 4.19 Summary of Potential Impacts and Mitigation

<table>
<thead>
<tr>
<th>Opportunity Area</th>
<th>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</th>
<th>related injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinatown-Cornfields Area</td>
<td>Low (assuming BMPs). But, high and potentially significant regarding increased risk of drowning and water-related injuries</td>
<td></td>
</tr>
<tr>
<td>Downtown Industrial Opportunity Area</td>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</td>
<td></td>
</tr>
<tr>
<td>Transport</td>
<td><strong>Potential adverse impacts include short-term impacts from construction activities, such as truck traffic and lane closures. Long-term adverse impacts include increased traffic and parking demand due to more visitors to the areas. Acquiring ROWs to develop park spaces or terracing along the river could impact arterial streets and railroads. Potential long-term impacts from increased traffic and parking demand on the area associated with future LARRMP projects could be high, and potentially significant, especially if</strong></td>
<td><strong>Traffic analyses should be prepared at the project level to evaluate the potential impacts associated with future LARRMP projects within the River Corridor and each of the five opportunity areas. Each traffic analysis should address the short-term effects within public street ROW, including temporary lane closures, driveway blockages, detours, and disruptions to the normal movement of traffic, transit patrons, and pedestrians, as well as the temporary loss of parking. The long-term impacts of operating the facilities should also be assessed by evaluating the amounts of traffic that would be generated by each implementation project under normal operation and, where relevant, the permanent loss of parking.</strong></td>
</tr>
</tbody>
</table>
### 4.19 Summary of Potential Impacts and Mitigation

<table>
<thead>
<tr>
<th>Opportunity Area</th>
<th>Impacts</th>
<th>Potential Mitigation Actions</th>
</tr>
</thead>
</table>
| **Chinatown-Cornfields**               | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. For both Alternatives CC-A and CC-B, Metrolink and Union Pacific rail lines along San Fernando Road could be adversely impacted by ROW acquisition. | Mitigation actions that can be applied during the construction phase of future projects to reduce potential short-term transportation impacts include the following:  
- For each construction site, a construction traffic management plan should be prepared and submitted to LADOT for review and approval before any construction work begins. This plan should include  
  - the designation of haul routes for construction-related trucks,  
  - the location of access to the construction site,  
  - any driveway turning movement restrictions,  
  - temporary traffic control devices or flag people,  
  - travel time restrictions for construction-related traffic to avoid peak travel periods on selected roadways, and  
  - designated staging and parking areas for workers and equipment;  
- Where construction would occur within a public street ROW, the following mitigation measures should also be applied:  
  - A traffic control plan should be prepared for each construction site and submitted to LADOT for review and approval prior to the start of any construction work. This plan should include the location of any lane closures, restricted hours during which lane closures would not be allowed, local traffic detours (where reasonable alternate routes exist), protective devices and traffic controls (such as barricades, cones, flag people, lights, warning beacons, temporary left-turn restrictions, temporary... |
| **Canoga Park Opportunity Area**       | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. For Alternative CP-B, traffic to the area is expected to increase, especially if a mixed-use village with a major retail and entertainment center is developed. | Moderate to High and potentially significant |
| **River Glen Opportunity Area**        | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. For both Alternatives RG-A and RG-B, the river parkway on the river channel terrace of the east bank of the Verdugo Wash would be visible from the I-5 freeway, possibly affecting traffic. | Moderate to High and potentially significant |
| **Taylor Yard Opportunity Area**       | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | Moderate to High and potentially significant |

Roads are closed or parking is lost to ROW acquisitions. If ROW acquisition for channel modifications or park development includes local streets, vehicle traffic could be adversely affected.

Some street parking may be lost due to the development of parks, paseos, and promenades. Parking demand will likely increase due to increased visitors to the area.

Depending on the levels of potential impacts identified in the above project-specific studies, mitigation actions may be needed to reduce to a less than significant level the temporary adverse impacts from construction in the vicinity of each construction site. The long-term impacts of operation of the facilities, employing the mitigation actions described in Section 4.12.10, are expected to reduce any temporary adverse impacts from future LARRMP projects to a less than significant level. Mitigation to potential long-term impacts could include widening of impacted arterials, signal timing modifications, and addition of designated parking spaces/ lots or parking meters.
### 4.19 Summary of Potential Impacts and Mitigation

| Downtown Industrial Opportunity Area | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. With Alternative DI-B, additional ROW on the east side of the river could be acquired for terracing and parks, adversely affecting traffic. | Moderate to High and potentially significant traffic signals, warning signs), access to abutting properties, and provisions to maintain emergency access through construction work areas, - Available street space should be fully used to minimize lane reductions on affected streets, including eliminating on-street parking where necessary, - Left-turn restrictions should be implemented as appropriate on restriped street segments to facilitate the movement of through traffic, - Travel lanes should be eliminated only when absolutely necessary, - Alternative pedestrian and bicycle access routes should be provided where sidewalks, crosswalks, or bike lanes would be affected, - Advance notice should be provided to any affected residents and businesses and property owners in the vicinity of each construction site, and, where existing property access would be reduced, alternative means of access should be identified, - Emergency service providers (police, fire, ambulance, and paramedic services) should be notified of any lane closures, construction hours, or changes to local access and to identify alternative routes where appropriate, and Public transit providers (MTA, LADOT Commuter Express, and Glendale Bee Line) should be notified of any lane closures and construction hours, and temporary bus stops should be established within a reasonable walking distance of any displaced bus stops. | • Where future LARRMP projects involve rail crossings and proximity to railroad lines, the following mitigation measures should be applied: - Construct where practicable, grade separation of major thoroughfares, - Make safety improvements to existing at-grade highway-rail crossings where there are expected traffic increases, and |
### Utilities and Infrastructure

| River Channel Modifications | Both the near-term and long-term changes proposed for the River Corridor would involve widening the current concrete channel to varying degrees and modifying the areas immediately adjacent to the banks along both sides. The construction activities would impact the utilities that are immediately adjacent to the River Corridor and those that cross the corridor. Impacts that may result from the open-space developments would also be mostly short-term. These impacts are expected to be related to clearing construction. Some permanent movement of segments of existing utility and infrastructure elements would be required (e.g., see discussion under Chinatown-Cornfields Opportunity Area). The two types of river channel modifications as well as the open space development measures would not result in long-term impact to availability of utilities, but would result in short-term construction impacts and movement of segments of existing utility and infrastructure elements. For the river channel modification, the impacts are expected to be higher for those measures where the river-flow velocity would be reduced due to the greater widths of the channel. The greater width of the channel modifications would require more of the utilities along the sides of the channel to be moved. In addition, the bridges across the river which often carry utility lines are more likely to have to be lengthened or replaced. The widening of the river channel and changes to the banks would require modification of existing bridges, requiring temporary movement. |
|-------------------------------| Low to High | The temporary movement of segments of transmission lines, telecommunications lines, and pipelines should be done in a manner to limit any interruptions in service to the time needed to disconnect form the current lines and switch to the temporary lines established to provide service during the move or reengineering of the main lines. |
| Open Space Developments | Include appropriate fencing to limit access to railroad right-of-way. |
4.19 Summary of Potential Impacts and Mitigation

of pipeline segments that use the bridges for crossing the River Corridor. Segments of the electric transmission lines that are immediately adjacent to the river banks would have to be moved further away from the centerline of the river. These segments may be end up closer to existing residential and commercial building along the River Corridor. Segments of the electric transmission lines that are in the immediate area of parks and recreation areas may have to moved to allow for specific design elements (e.g., playing fields). These segments may be end up closer to existing residential and commercial building near the parks and recreation facilities. The widening of the river channel and changes to the banks would require modification of existing bridges, requiring temporary movement of pipeline segments that use the bridges for crossing the River Corridor. Segments of any fiber optic cables along either bank of the river might have to be moved further away from the centerline of the river. Where they cross the Los Angeles River at bridges, the modification of existing bridges would require temporary movement of segments of these cables. Some of the stormwater collection paths, drains, and underground pipelines that exist in the river channel area would be permanently changed. Most would be temporarily impacted by construction. Some permanent changes to stormwater collection points, pipelines and pathways are expected where the open-space development measures involve changes in slope and grading. Most impacts would be temporary due to construction. Overall, the handling of stormwater would be improved by the implementation of revitalization measures.
<table>
<thead>
<tr>
<th>Opportunity Area</th>
<th>Impacts would be similar to those described under River Channel Modifications and Open Space Developments.</th>
<th>Low to High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canoga Park Opportunity Area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>River Glen Opportunity Area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taylor Yard Opportunity Area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chinatown-Cornfields Opportunity Area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Downtown Industrial Opportunity Area</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Socioeconomics**

- **River Channel Modifications**
  - With expansion of the river ROW, there is a potential for adverse impacts on housing and employment.
  - High and potentially significant impact associated with lost jobs and increased demand for public services.

- **Open Space Developments**
  - Implementing park development measures could displace existing commercial and industrial businesses and result in lost jobs.
  - High and potentially significant impact associated with lost jobs and increased demand for public services.

- **Canoga Park Opportunity Area**
  - Acquisition of additional Channel ROW and creation of the proposed riverfront park could result in displacing commercial and industrial.
  - High and potentially significant impact associated with lost jobs and increased demand for public services.

Site-specific studies are required to assess the significance of any adverse socioeconomic impacts that could result from implementing future LARRMP revitalization projects. These studies should address potential direct, indirect, and cumulative impacts. The findings of these studies are required prior to identifying appropriate mitigation actions for these future projects. Appropriate mitigation actions will vary depending on the type of resource impacted and the extent of the impact. Per the Draft Los Angeles CEQA Thresholds Guide, population and housing growth are not considered significant effects on the environment. Secondary or indirect impacts, such as increased traffic or noise, may be significant and may be physical changes caused by population and housing growth. Thus, mitigating these secondary impacts may also reduce potential adverse impacts from population and housing growth. Socioeconomic impacts requiring mitigation would be associated with population and housing displacement and need for new public services. Generally, the types of socioeconomic mitigation measures to be identified include the following:

- Avoiding socioeconomic impacts altogether by not taking a certain action or parts of an action;
- Minimizing socioeconomic impacts by limiting the degree or magnitude of the action and its implementation;
### 4.19 Summary of Potential Impacts and Mitigation

<table>
<thead>
<tr>
<th>Opportunity Area</th>
<th>Development and public facilities.</th>
<th>Impact associated with lost jobs and increased demand for public services</th>
<th>Mitigation Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>River Glen Opportunity Area</td>
<td>Reinvestment measures could result in additional needs for emergency medical services, police, and fire protection. If residential development is included in mixed-use design, then there could be additional impacts on schools and library public services.</td>
<td>High and potentially significant impact associated with lost jobs and increased demand for public services.</td>
<td>• Rectifying the socioeconomic impact by repairing, rehabilitating, or restoring lost amenities; • Reducing or eliminating the socioeconomic impact over time by preservation and maintenance operations; • Compensating for the socioeconomic impact by replacing or providing substitute resources; • Exceeding the statutory requirements for relocation assistance; and • Increasing the number of housing units affordable to lower income households.</td>
</tr>
<tr>
<td>Taylor Yard Opportunity Area</td>
<td>Expanding the confluence function could result in displacing industrial land uses. Linear park, paseos, and promenades development could increase future population and employment.</td>
<td>High and potentially significant impact associated with lost jobs and increased demand for public services.</td>
<td></td>
</tr>
<tr>
<td>Chinatown-Cornfields Opportunity Area</td>
<td>Parks, paseos, and promenade developments could require displacement of industrial, public facilities, and single family residential uses and could induce demand for new or altered government services.</td>
<td>High and potentially significant impact associated with lost jobs and increased demand for public services.</td>
<td></td>
</tr>
<tr>
<td>Downtown Industrial Opportunity Area</td>
<td>Parks, paseo-promenade developments and reinvestment measures would result in displacing industrial, public facilities, and multifamily residential development, and would induce demand for new or altered government services.</td>
<td>High and potentially significant impact associated with lost jobs, displacement of families, and increased demand for public services.</td>
<td></td>
</tr>
</tbody>
</table>
### 4.19 Summary of Potential Impacts and Mitigation

<table>
<thead>
<tr>
<th>Environmental Justice</th>
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</thead>
</table>

**River Channel Modifications**  
Noise and fugitive dust emissions from construction or vehicle maneuver would have adverse noise and air quality impacts on minority low-income populations.  
Short term high and potentially significant noise and air quality impacts during construction  
As future revitalization measures are considered for implementation, evaluation of their potential impacts on affordable housing units, minority populations, and low-income populations in the River Corridor and vicinity will be required and appropriate mitigation identified, where applicable. Potential adverse impacts requiring mitigation could include displacement of affordable housing units and minority or low-income residences. Noise from construction project sites or vehicle maneuver areas, and construction noise impacts on minority and low-income populations (see Section 4.10, Noise). Noise from construction would last only for the construction period. Construction would be limited to daytime hours. Air quality impacts from fugitive dust emissions could also have a short-term low to moderate impact on minority or low-income residences; however, these potential impacts would be reduced to less than significant levels by implementing best management practices to control dust, as described in Section 4.3.

**Open Space Developments**  
Impacts would be similar to those described under River Channel Modifications.  
Short term high and potentially significant noise and air quality impacts during construction

**Canoga Park Opportunity Area**  
Impacts would be similar to those described under River Channel Modifications.  
Short term high and potentially significant noise and air quality impacts during construction

**River Glen Opportunity Area**  
Impacts would be similar to those described under River Channel Modifications.  
Short term high and potentially significant noise and air quality impacts

yard and lands currently in industrial use and would induce demand for new or altered government services.  
Impact associated with lost jobs, displacement of families, and increased demand for public services.
## 4.19 Summary of Potential Impacts and Mitigation

<table>
<thead>
<tr>
<th>Location</th>
<th>Impacts Description</th>
<th>Impacts During Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taylor Yard Opportunity Area</td>
<td>Impacts would be similar to those described under River Channel Modifications. Displacement of low-income families may also accompany reinvestment measures.</td>
<td>Short term high and potentially significant noise and air quality impacts during construction</td>
</tr>
<tr>
<td>Chinatown-Cornfields Opportunity Area</td>
<td>Impacts would be similar to those described under River Channel Modifications. Displacement of low-income families may also accompany reinvestment measures.</td>
<td>Short term high and potentially significant noise and air quality impacts during construction, and with displacement of residences</td>
</tr>
<tr>
<td>Downtown Industrial Opportunity Area</td>
<td>Park, paseos, paseo-promenade developments, and reinvestment measures, would require displacing and relocating the Union Pacific rail yard and lands currently in industrial use and would induce demand for new or altered government services. Displacement of low-income families may also accompany reinvestment measures.</td>
<td>Short term high and potentially significant noise and air quality impacts during construction, and with displacement of residences</td>
</tr>
</tbody>
</table>

### Cultural Resources

There are no recorded archaeological sites in the current river channel. Because of the past disturbance it is unlikely that intact archaeological resources would be present. However, floods can encapsulate cultural remains in deep layers and some intact resources may be preserved. Further project-level investigations, assessments, and evaluations to identify, evaluate and determine levels of effects on cultural resources are required prior to implementing LARRMP revitalization measures. When ripe for analysis, the Corps and the City may choose to enter into a programmatic agreement with the Office of Historic Preservation and others to satisfy the requirements of Section 106 of the National Historic Preservation Act.
### 4.19 Summary of Potential Impacts and Mitigation

Prehistoric or historic deposits could also be present, especially below the edges of the river channels. The likelihood of encountering historic archaeological deposits would be higher in the reach of the river from the Fletcher Street Bridge through downtown because of the early transportation and industrial development in the immediate River Corridor.

Because of past disturbance, traditional cultural properties are not expected. If prehistoric or ethnohistoric archaeological sites or burials are encountered, these would likely be important to contemporary Native American communities.

Both types of channel modification measures would require ground disturbance. Ground disturbance could impact archaeological resources, if present, by altering the spatial relationships of artifacts and features and thus reduce research potential. Sometimes the exposure of archaeological sites can lead to damage from vandalism or erosion. River channel modifications that seek to reduce river flow velocity would require more ground disturbance than modifications that do not. This disturbance would be related to off-channel attenuation or in the construction of underground linear culverts parallel to and adjacent to the river.

Both types of channel modification measures would have the potential to impact the integrity of historic buildings and structures through direct alteration, removal or alterations to setting. River channel modifications that seek to reduce river flow velocity would have more of a potential to impact historic buildings and structures, because of acquisition and modification of adjacent properties. Indirect effects could include stimulation of demolition of older unprotected structures, if property values rise.

The National Historic Preservation Act (NHPA) for all or portions of the LARRMP. Because many of the LARRMP revitalization measures and cultural resource impact issues are common to the whole project, a programmatic agreement can set standards and expectations for consistently addressing cultural resources for the plan implementation and avoiding redundant consultations. Alternatively, the Corps and the City may choose to address cultural resources on a project-by-project basis because of the long implementation time frame, project funding or phasing and differences between specific project sites. For example, there would be differences between the potential types of historical archaeological sites expected in the Downtown Industrial Opportunity Area and the Canoga Park Opportunity Area.

As specific LARRMP implementation projects are identified and undertaken in the future, additional inventory and site- and resource-specific surveys should be conducted to better define resources present and the potential impacts. Future project plans and designs should be coordinated with planners so that potential issues with cultural and paleontological resources can be avoided, if possible.

Potential mitigation, best management practices, and investigation protocols that could be employed with future projects to reduce levels of potential adverse impacts include the following:

**Regarding Cultural Resources:**

- Define the area of potential effects for cultural resources based on the proposed action in consultation with the OHP.
- Update the cultural resource record search and resolve any data discrepancies.
- Conduct an in-depth review of cultural resource records and reports, local histories, ethnic neighborhood development, Sanborn Insurance and other historic maps and other literature relevant to the project area.
- Contact the California Native American Heritage Commission for a Sacred Lands File (SLF) search to obtain information on any known or potential sacred sites or traditional cultural properties at the specific project sites;
- Obtain a list of current tribal contacts in the project vicinity who may have additional cultural resource information and conduct consultation on Native American cultural concerns;
### 4.19 Summary of Potential Impacts and Mitigation

<table>
<thead>
<tr>
<th>Open Space Developments</th>
<th>Moderate to high and potentially significant</th>
</tr>
</thead>
</table>
| Most of the River Corridor and in particular the downtown area include subsurface geologic units that could yield scientifically important vertebrate paleontological resources under shallow Holocene alluvium. The potential for encountering paleontological resources would be greatest where excavations are most extensive and deep such as for underground linear culverts. Negative impacts could occur if the resources are inadvertently destroyed without being studied during construction or if subjected to unauthorized collection or damage due to exposure and erosion. | - Determine the need, appropriate level of effort, and methods for effective archaeological and historic built environment surveys;  
- Inventory and evaluate resources for eligibility for the NRHP and CRHR, which may require test excavations or additional archival research;  
- Prepare a professional report detailing the findings and recommendations of the records search and inventories. Submit all findings to the OHP and file all reports and site forms with the South Central Coastal Information Center;  
- By applying the criteria of adverse effect and the City of Los Angeles CEQA thresholds, determine impacts on known or anticipated cultural resources resulting from the proposed action and develop specific mitigation measures with the concurrence of the OHP;  
- Avoid impacting resources through project redesign or modification when significant cultural resources are discovered during the course of project planning. Avoidance is defined in §15370 of the CEQA Guidelines;  
- Prepare a discovery plan outlining in detail procedures for discovering unanticipated buried resources;  
- Include provisions for discovery of Native American human remains or unmarked cemeteries in mitigation plans;  
- Follow Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec §15084.5 (d) of the CEQA Guidelines procedures in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery;  
- Conduct data recovery excavations of archaeological sites that cannot be avoided or are discovered during construction based on an approved research design appropriate to the anticipated site type;  
- If the buried resources are anticipated, monitor all excavations.  
- Protect exposed archaeological sites from vandalism and erosion. Consider covering and encapsulating archaeological resources as necessary. |

Prehistoric and historic archaeological sites have been found and are possible throughout the River Corridor. Sensitivity for historic archaeological resources is probably higher than prehistoric or ethnohistoric sites, especially in the old industrial and railyard areas. Historic buildings and structures are present, including resources that are eligible or listed on the National Register of Historic Places (NRHP) and California Register of Historic Resources (CRHR) and are City of Los Angeles Cultural-Historical Monuments. Archaeological sites or burials that may be important to contemporary Native American communities could be encountered. All of the proposed measures include ground disturbing activities such as excavation and grading that could affect the integrity of archaeological sites, if present. The proposed open space measures would have the potential to impact the integrity of historic buildings and structures through direct alteration, removal or changes in setting. Alterations could be proposed for historic structures such as bridges or channel infrastructure. The open space development could require the removal of historic buildings.
### 4.19 Summary of Potential Impacts and Mitigation

| Canoga Park Opportunity Area | Impacts for Alternatives CP-A and CP-B generally would be similar to those described under River Channel Modifications and Open Space Developments. Alternative CP-A would require property acquisition, removal and alteration of buildings and structures, shallow and deep excavation, and new construction. These actions could impact archaeological sites, historic buildings and structures and paleontological resources if present at the project site. The acquisition of rights of way and property for revitalization measures and subsequent site preparation would require removing existing structures, grading and excavation. New construction that is proposed may change the physical setting of historic buildings and structures. Alterations are proposed for channel infrastructure that may also be historic. If the proposed actions alter the characteristics of historic properties that qualify them for inclusion on the NRHP or the CRHR, there could be an adverse effect. Impacts associated with Alternative CP-B, would be similar to Alternative CP-A, except a greater amount of land acquisition, park development, ground disturbance and modification of the channels is proposed and | Moderate to high and potentially significant sites under sterile fill after recording. |

- Prepare a preservation plan for historic buildings and structures to ensure that new construction is compatible with historic resources and that alterations are consistent with the appropriate Secretary of Interior Standard.
- Encourage adaptive reuse through zoning and reinvestment incentives.
- If preservation in place is not possible or if major modifications are needed, undertake documentation according to the requirements of the Historic American Building Survey (HABS) or the Historic American Engineering Record (HAER) and ensure that copies are made available locally. Require that local preservation organizations and historical societies have access to record the resource and/or remove significant historic elements for archives.

### Regarding Paleontological Resources:

- Conduct additional archival and field research to determine site specific sensitivity for impacting paleontological resources.
- If appropriate, conduct limited exploratory sampling to determine resource potential.
- Revise the proposed project to avoid excavation or grading in areas with known or potential surface exposures of fossils, or within rock units with a high potential for paleontological resources.
- Retain a qualified paleontologist to monitor for scientifically important fossil remains. Divert grading efforts in the area of exposed paleontological resources to allow evaluation and, if necessary, salvage. Ensure scientific specimens are curated at a public, nonprofit educational institution, such as the Los Angeles County Museum of Natural History.
- If found, provide erosion protection (e.g., retaining walls, drainage channels) to protect surface resources and restrict or prevent access to sensitive resource areas on site
- Protect subsurface fossils in place, through covering with appropriate soil materials.
## 4.19 Summary of Potential Impacts and Mitigation

<table>
<thead>
<tr>
<th>Opportunity Area</th>
<th>Impacts</th>
<th>Potential Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>River Glen</td>
<td>Impacts for Alternative RG-A generally would be similar to those described above for River Channel Modifications, Open Space Developments, and for Alternative CP-A. Impacts with Alternative RG-B would be similar to RG-A, except a greater amount of land acquisition, park development, ground disturbance and modification of the channels would be proposed and would increase the potential for impacting cultural resources. The proposed increased level of reinvestment measures, emphasis on increased density, and commercial construction may have the indirect effect of prompting demolition of older structures and affecting the setting of historic buildings and structures.</td>
<td>Moderate to high and potentially significant</td>
</tr>
<tr>
<td>Taylor Yard</td>
<td>Impacts would be similar to those described under River Channel Modifications and Open Space Developments. The opportunity area includes three recorded archaeological sites and three buildings or structures eligible for the CRHR, two eligible for the NRHP and four Los Angeles Historic-Cultural Monuments. Further inventory of buildings and structures would likely result in the recording of additional resources. Because of the early development in the opportunity area, historic archaeological resources are likely to be present. The opportunity area also includes formations that have a high sensitivity to contain fossil resources. The configuration of proposed revitalization measures would require property acquisition, removal and alteration of buildings and structures, shallow and deep excavation, and new construction. These actions could impact archaeological sites, historic buildings and structures and paleontological resources if present at the project site. The acquisition of</td>
<td>Moderate to high and potentially significant</td>
</tr>
</tbody>
</table>
## 4.19 Summary of Potential Impacts and Mitigation

| Chinatown-Cornfields Opportunity Area | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. For both Alternatives CC-A and CC-B, the opportunity area includes many of the earliest developed areas in Los Angeles. Recorded resources range from the early 19th century through the late 20th century. Many cultural resource studies have been conducted. Nine historic archaeological sites have been recorded, including a single large site documenting the River Station which was the first transcontinental railroad station in Los Angeles. There are 17 properties eligible for the CRHR and the NRHP and two properties are formally listed on the NRHP. There are five state historic landmarks and 16 designated City of Los Angeles Historic-Cultural Monuments. | Moderate to high and potentially significant |
Because of the early development in the opportunity area, historic archaeological resources are likely to be present. The opportunity area also includes formations that have a high sensitivity to contain fossil resources. The configuration of revitalization measures could impact archaeological sites, historic buildings, bridges, and other structures, and paleontological resources if present at project sites. The acquisition of rights of way and property for revitalization measures and subsequent site preparation would require removing existing structures, grading and excavation. Affected buildings and structures would need to be evaluated to determine whether any historic resources would be removed or altered. New construction that is proposed may change the physical setting of historic buildings and structures including three historic bridges (Buena Vista Viaduct, Main Street Bridge, and Macy Street Bridge). Alterations are proposed for channel infrastructure that may also be historic. If the proposed actions alter the characteristics of historic properties that qualify them for inclusion on the NRHP or the CRHR, there could be an adverse effect. Indirect adverse impacts could include the removal of older structures and historic neighborhoods due to changes in land use and property values. Alternative CC-B involves constructing a channel diversion to allow creation of a small island. This alternative involves a greater amount of land acquisition, park development, ground disturbance and modification of the channel, which would increase the potential for impacting cultural resources. The proposed increased level of reinvestment measures and emphasis on redevelopment may have the indirect effect of prompting demolition of older
| Downtown Industrial Opportunity Area | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. For both Alternatives DI-A and DI-B, the opportunity area includes some of the earliest industrialized and residential areas of the city and includes the former site of the Le Grande Railway Station. Some of the proposed measures would extend into the community of Boyle Heights which is rich in historic buildings. Over 20 cultural resource studies have been conducted and nine historic archaeological sites have been recorded. There are 25 properties eligible for the CRHR and the NRHP. Two properties are designated as City of Los Angeles Historic-Cultural Monuments. Because of the early development in the opportunity area and information from previous investigations, historic archaeological resources are likely to be present. The opportunity area also includes formations that have a high sensitivity to contain fossil resources. Both alternative configurations of proposed revitalization measures would require property acquisition, removal and alteration of buildings and structures, shallow and deep excavation, and new construction. These actions could impact archaeological sites, historic buildings and structures and paleontological resources if present at the project site. The acquisition of rights of way and property for revitalization measures and subsequent site preparation would require removing existing structures, grading and excavation. Affected buildings and structures would need to be evaluated to determine whether any historic elements are present. Moderate to high and potentially significant |
resources would be removed or altered. New construction that is proposed may change the physical setting of historic buildings and structures. Alterations are proposed for channel infrastructure that may also be historic. If the proposed actions alter the characteristics of historic properties, historic bridges, and other structures that qualify them for inclusion on the NRHP or the CRHR, there could be an adverse effect. Indirect adverse impacts could include the removal of older structures and alteration of historic neighborhoods due to changes in land use and property values.

Alternative DI-B involves developing a larger linear park on the eastern banks of the river through rail realignment. Also, this includes a greater amount of land acquisition, park development, ground disturbance and modification to the channel, which would increase the potential for adversely impacting cultural resources. The increased level of reinvestment measures and emphasis on redevelopment may have the indirect effect of prompting demolition of older structures and affecting the setting of historic buildings and structures.

<table>
<thead>
<tr>
<th>Aesthetic Resources</th>
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<tbody>
<tr>
<td>River Channel Modifications</td>
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<tr>
<td>Low to Moderate</td>
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</table>
Open Space Developments | Open space development measures would likely involve lighting for nighttime activities at, for example, parks or for safety purposes along, for example, pathways. In places where open space development measures replace existing structures, it is assumed the new lighting would be similar to the previous lighting, resulting in no new impacts from light or glare. In places where open space development measures add new lighting, there would be direct, adverse, long-term impacts from light or glare. The new lighting would diminish the natural darkness at night in the local area. | Low to Moderate

Canoga Park Opportunity Area | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | Low to Moderate

River Glen Opportunity Area | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | Low to Moderate

Taylor Yard Opportunity Area | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | Low to Moderate

Chinatown-Cornfields Opportunity Area | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | Low to Moderate

Downtown Industrial Opportunity Area | Impacts would be similar to those described under River Channel Modifications and Open Space Developments. | Low to Moderate
### Table 4.19-1
Summary Table

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Level of Impact</th>
<th>Mitigation Measures/Best Management Practices</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>Downtown Industrial Opportunity Area</td>
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<td>Development, ground disturbance and modification to the channel, which would increase the potential for adversely impacting cultural resources. The increased level of reinvestment measures and emphasis on redevelopment may have the indirect effect of prompting demolition of older structures and affecting the setting of historic buildings and structures.</td>
<td>Low to Moderate</td>
<td>Although implementation of the LARRMP measures would comply with regulations pertaining to aesthetic resources, employing best management practices during construction and operations would aid in minimizing potential adverse impacts on aesthetic resources. For example, construction activities could be scheduled to minimize the use of spotlights used at night to illuminate project sites. Also, construction traffic could be timed to reduce the amount of congestion and activities visible in the vicinity of project sites. Further, shrouds could be used to block stray light emanating from new light sources that are a part of new projects. These, and other best management practices, should be further developed once specific site designs are completed for future projects.</td>
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<tr>
<td>Aesthetic Resources</td>
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<tr>
<td>River Channel Modifications</td>
<td>Low to Moderate</td>
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<tr>
<td>During construction of river channel modifications, employee and construction vehicles would likely use local streets and highways. Also, it is assumed bright spotlights would be used at times to illuminate construction activities at night. As a result, there would be direct, adverse, short-term impacts from light or glare, because nighttime lighting would increase. Also there would be direct, adverse, short-term impacts on the existing visual character or quality of the site and its surroundings, because the traffic during construction in the vicinity of project sites would increase. Construction traffic and work would be visible in the vicinity of project sites.</td>
<td>Low to Moderate</td>
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<tr>
<td>Open Space Developments</td>
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<tr>
<td>Lighting would diminish the natural darkness at night in the local area.</td>
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<tr>
<td>Canoga Park Opportunity Area</td>
<td>Low to Moderate</td>
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<tr>
<td>River Glen Opportunity Area</td>
<td>Low to Moderate</td>
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<tr>
<td>Taylor Yard Opportunity Area</td>
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<td>Chinatown-Cornfields Opportunity Area</td>
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</table>
CHAPTER 5
ENVIRONMENTAL COMPLIANCE AND COORDINATION

5.1 APPLICABLE REGULATIONS AND GUIDELINES
To help ensure the environmental acceptability of future LARRMP revitalization projects, each project must comply with applicable local, state, and federal regulations and guidelines. Chapter 4 of this PEIR/PEIS affords, at a programmatic level, a platform for initiating the required project-level compliance, by providing the following:

- A “first-tier” identification and evaluation of the potential environmental impacts associated with implementing the LARRMP, following CEQA and NEPA regulations and guidelines;
- The “regulatory framework” of applicable laws and regulations associated with each of the key environmental resource areas typically evaluated for determining types and levels of potential impacts;
- Those “mitigation actions” and BMPs that can be employed during construction and operations of future LARRMP revitalization projects to help avoid, reduce, or offset potential adverse environmental impacts; and
- Guidance regarding further surveys, studies, and research needed to accompany future LARRMP revitalization projects in order to identify and evaluate project-specific and site-specific environmental impacts and refined mitigation actions.

Full compliance by future LARRMP implementation projects with state and federal regulations will require subsequent environmental investigations and consultation with the appropriate agencies and public stakeholders. Specific consultation that is needed with local, state, and federal agencies will be identified as the planning and design of LARRMP revitalization projects proceeds. Consultations would address such factors as air quality, seismic hazards, water quality, wetlands, and cultural resources. Also, local governments would be consulted to ensure the proper permits and authorizations are obtained.

In addition to extensive public outreach during the development of the LARRMP and PEIR/PEIS, coordination has been initiated with local, state, and federal agencies. Agencies consulted include the US Fish
and Wildlife Service, California Department of Fish and Game, California Office of Historic Preservation, and the Cities of Glendale and Burbank (see Section 6.2).

Table 5-1 lists those statutes, Executive Orders, and other regulations that are applicable to the LARRMP. The entries are cross-referenced to the section of the PEIR/PEIS where they have been further discussed.

<table>
<thead>
<tr>
<th>Statute, Executive Order, and Other Regulations</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Federal</strong></td>
<td></td>
</tr>
<tr>
<td>Prime and Unique Farmlands (CEQ Memorandum Aug 1980)</td>
<td>4.2</td>
</tr>
<tr>
<td>Clean Air Act</td>
<td>4.3</td>
</tr>
<tr>
<td>Clean Water Act (Sections 401, 402, and 404)</td>
<td>4.5 and 4.7</td>
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<tr>
<td>Flood Control Act</td>
<td>4.5</td>
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<tr>
<td>National Flood Insurance Act</td>
<td>4.5</td>
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<tr>
<td>Executive Order (EO) 11988, Floodplain Management</td>
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<tr>
<td>Endangered Species Act</td>
<td>4.7</td>
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<td>Fish and Wildlife Coordination Act</td>
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<td>EO 13112, Invasive Species</td>
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<tr>
<td>EO 11990, Protection of Wetlands</td>
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<td>EO 13186, Migratory Bird</td>
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<tr>
<td>EO 11514, Protection and Enhancement of Environmental Quality</td>
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<tr>
<td>Noise Control Act</td>
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<tr>
<td>Comprehensive Environmental Response, Compensations and Liability Act</td>
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<tr>
<td>Resource Conservation and Recovery Act</td>
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<td>EO 13045, Protection of Children from Health Risks and Safety Risks</td>
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<td>Occupational Safety and Health Act</td>
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<td>EO 12898, Environmental Justice in Minority and Low-Income Populations</td>
<td>4.14 and 4.15</td>
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<tr>
<td>National Historic Preservation Act</td>
<td>4.16</td>
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<td>American Indian Religious Freedom Act</td>
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<tr>
<td>Archaeological Resources Protection Act</td>
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<tr>
<td>Native American Graves Protection and Repatriation Act</td>
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<tr>
<td>EO 13175, Consultation and Coordination with Indian Tribal Governments</td>
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<td>EO 13287, Preserve America</td>
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<tr>
<td>EO 11593, Protection and Enhancement of the Cultural Environment</td>
<td>4.16</td>
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<tr>
<td><strong>State</strong></td>
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<tr>
<td>California Clean Air Act</td>
<td>4.3</td>
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<tr>
<td>Alquist-Priolo Earthquake Fault Zoning Act</td>
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<tr>
<td>Seismic Hazards Mapping Act</td>
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<tr>
<td>State Water Quality Certification</td>
<td>4.5</td>
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<tr>
<td>Porter-Cologne Water Quality Control Act</td>
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<tr>
<td>Surface Mining and Reclamation Act</td>
<td>4.6</td>
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<tr>
<td>California Endangered Species Act</td>
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<tr>
<td>Streambed Alteration Agreement</td>
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<tr>
<td>Quimby Act (park land dedication)</td>
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<tr>
<td>California Hazardous Waste Control Law</td>
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<td>Solid Waste Reuse and Recycling Access Act</td>
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<td>Integrated Waste Management Act</td>
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<tr>
<td><strong>Local</strong></td>
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<td>Los Angeles Building Code</td>
<td>4.4</td>
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<tr>
<td>Standard Urban Stormwater Mitigation Plan</td>
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</tr>
<tr>
<td>Significant Ecological Areas</td>
<td>4.7</td>
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<tr>
<td>Tree Ordinances (e.g., Los Angeles County Oak Tree Ordinance)</td>
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</table>
5. Environmental Compliance and Coordination

Table 5-1  
Applicable Federal, State, and Local Laws, Regulations, and Executive Orders

<table>
<thead>
<tr>
<th>Statute, Executive Order, and Other Regulations</th>
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<tr>
<td>City of Los Angeles General Plan</td>
<td>Chapter 4</td>
</tr>
<tr>
<td>City of Burbank General Plan</td>
<td>4.8</td>
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<tr>
<td>City of Glendale General Plan</td>
<td>4.8</td>
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<tr>
<td>Los Angeles River Master Plan (Los Angeles County)</td>
<td>4.8</td>
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<tr>
<td>Greater Los Angeles County Integrated Regional Water Management Plan</td>
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</tr>
<tr>
<td>City of Los Angeles Fire Code</td>
<td>4.11</td>
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</tbody>
</table>

5.2 OTHER REQUIRED ANALYSIS

5.2.1 Introduction
In addition to the analysis discussed in Chapter 4, both NEPA and CEQA require additional evaluation of the project’s impacts. This section is an evaluation of the potential growth-inducing impacts, the relationship between short-term uses of the human environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources that would be involved in the proposal should it be implemented.

5.2.2 Growth-Inducing Impacts
CEQA Guidelines (Article 9, 15126.2[d]) require the discussion of how the proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment.

Implementation of the LARRMP is not expected to result in significant growth-inducing impacts in the greater Los Angeles area as a whole. However, potentially significant local or community changes in growth are expected to occur. Development and reinvestment in the River Corridor to include the opportunity areas is expected. As efforts intensify to develop continuous bike and pedestrian paths along the Los Angeles River and to return the river to a more natural state, and as parks are developed along the river’s banks, the river will increasingly become a valuable recreational resource and community asset. This will make the area a desirable place to live and work. The opportunity areas may experience growing pressure for coveted joint live/work space, a trend seen in other industrial areas of the City.

There would be increased demand for residential housing and light commercial development in the river corridor with implementation of the LARRMP. There would be an increase in condominiums, apartments, single-family homes, retail stores, and restaurants, especially in and adjacent to the opportunity areas. However, a balance should be maintained between residential/park use and commercial/industrial uses.

Historically, there has been a preponderance of commercial and industrial development in the River Corridor, especially in the downtown area. The River Corridor is also heavily used by the railroad. If changes in land use are to occur, they must be coordinated with local communities and land use plans. Maintaining adequate manufacturing, warehouse, and industrial facilities is vital to the economic health of Los Angeles.

Implementation of the LARRMP would also create a substantial number of design and construction jobs. Some measures, such as channel modifications and constructing an island at the Chinatown-Cornfields
Opportunity Area, are substantial construction projects that would create numerous jobs and most likely would take years to complete (from design through construction).

Potential impacts on population growth and land use changes would be addressed on a site-specific and cumulative basis in the future as measures are considered for implementation. Appropriate mitigative measures would also be developed at that time.

5.2.3 Relationship Between Local Short-Term Uses of the Environment and Long-Term Productivity

NEPA requires that an EIS consider the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity (40 CFR 1502.16). Short-term impacts would be primarily construction related, as described in Chapter 4. These would include impacts on air quality from the operation of heavy equipment, increased noise, traffic impacts (e.g., road closures, increased traffic, parking), and the displacement of wildlife in the River Corridor. These types of short-term impacts would be more localized at the construction site and would be temporary.

However, the long-term productivity of the corridor would be greatly enhanced for fish and wildlife resources, along with the residents of Los Angeles. Long-term productivity would include increased recreational opportunities, improved water quality related to improvements to stormwater runoff, improved aesthetics, and increased quantity and quality of fish and wildlife habitat. There also would be long-term economic benefits from revitalization and reinvestment in neighborhoods and communities throughout the 32-mile corridor.

5.2.4 Irreversible or Irretrievable Commitments of Resources

Both CEQA (Article 9, 15126.2[c]) and NEPA (40 CFR 1502.16) require the EIR/EIS to consider the extent to which the project would commit nonrenewable resources during the initial and continued phases of the project. CEQA also requires the consideration of irreversible damage from environmental accidents associated with the project.

Although the LARRMP would require numerous resources (raw materials, labor, and energy/fuel) to construct and maintain, it does not represent a substantial irreversible commitment of resources. Construction would include the use of building materials such as concrete, fill dirt and landscape materials. Fuel and lubricants would also be required to operate construction equipment. Consumption of resources would be justified by the overall benefits the project would provide to the residents of the City and County of Los Angeles over the long term. Implementation of the LARRMP would help improve the aesthetics, recreational use, quality of life, flood control, and ecological productivity of Los Angeles.

As discussed in Section 4.5, irreversible damage could occur from altering the flood control channel if it is not designed and constructed properly. Appropriate hydrologic modeling and engineering analysis would be performed to ensure adequate flood protection for area residents and businesses. Appropriate measures would also be implemented to ensure adequate flood protection during periods of construction (e.g., temporary retaining walls, by-pass channels).
5.2.5 Unavoidable Significant Adverse Impacts

Section 4 of this PEIR/PEIS identifies the anticipated environmental effects for each resource area, identifies mitigation measures, and determines the degree of impact. Significant impacts that remain after implementation of appropriate and practicable mitigation are considered unavoidable adverse impacts. Unavoidable significant adverse impacts to transportation and cultural resources could potentially result from implementing the future projects anticipated for the LARRMP.
CHAPTER 6
LIST OF PREPARERS AND PERSONS CONSULTED

6.1 List of Preparers

William Abadie
MS, Biology
BS, Biology
Years of Experience: 15
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(Cumulative Impacts)

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(Project Manager; Chapters 1 and 2)

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(Air Quality, Noise)

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MSES, Water Resources Specialization  
BS, Environmental Science  
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(Utility and Infrastructure)

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(Maps)

Ridge Robinson  
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BA, Business  
Years of Experience: 15  
(Agriculture, Land Use, Recreation, and Socioeconomics)

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BA, Technical and Professional Writing  
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(Technical Editing)

6.2 List of Persons Consulted

6.2.1 Federal Agencies
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Pam Maxwell, Staff Archaeologist, Los Angeles District, US Army Corps of Engineers
Christine Medak, Ecological Services, Carlsbad Fish and Wildlife Office, US Fish and Wildlife Service
Cathy Shuman, Planner, Los Angeles District, US Army Corps of Engineers
6.2.2 **State Agencies**
Steve Furness, Information Services Coordinator, California Natural Diversity Database, Wildlife & Habitat Data Analysis Branch, California Department of Fish and Game

Stacy St. James, Coordinator, South Central Coastal Information Center, California Office of Historic Preservation

6.2.3 **Local Agencies**
Ara Kasparian, Environmental Management Group Division Manager, Bureau of Engineering, Department of Public Works, City of Los Angeles

Peter Zovak, Housing Development and Preservation Administrator, City of Glendale Community Development and Housing

Ronald M. Mathieu, Manager, Public Projects, Metrolink

Stephen H. Lantz, Director, Communications and Development, Metrolink

Michael E. McGinley, Director, Engineering and Construction, Metrolink

Francisco Oaxaca Manager, Media & External Communications, Metrolink

Judy Wilson, Judy Wilson & Associates, representing Metrolink
CHAPTER 7
REFERENCES


Los Angeles River Revitalization Master Plan Final PEIR/PEIS
Los Angeles, California
April 2007

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7. References


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_____. Undated(c). Hollywood Community Plan, Generalized Land Use Map.


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7. References


7. References


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7. References


______. 1980. Soil Survey of Los Angeles County California, West San Fernando Valley Area.


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7. References


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Western Riverside County MSHCP (Multiple Species Habitat Conservation Plan). Species List. Southern Grasshopper Mouse. Internet Web site: http://ecoregion.ucr.edu/list_head.asp.


APPENDIX A

PEIR/PEIS Distribution List
AMTRAK
Atwater Village Branch Library
Benjamin Franklin Branch Library
Burbank Central Library
California Air Resources Board
California Coastal Commission
California Department of Fish and Game
California Department of Toxic Substances Control
California Department of Transportation (CALTRANS)
District 7
California Public Utilities Commission
California State Assemblymember and Speaker Fabian Núñez
California State Assemblymember Julia Brownley
California State Assemblymember Kevin de Leon
California State Assemblymember Lloyd E. Levine
California State Assemblymember Mike Feuer
California State Assemblymember Paul Krekorian
California State Clearinghouse, Governor's Office of Planning and Research
California State Historic Preservation Office
California State Parks Foundation
California State Senator Alex Padilla
California State Senator Gilbert A. Cedillo
California State Senator Jack Scott
California State Senator Mark Ridley-Thomas
California State Senator Sheila J. Kuehl
Canoga Park Branch Library
Chinatown Branch Library
City of Burbank
City of Carson
City of Compton
City of Glendale
City of Long Beach
City of Los Angeles Community Development Department
City of Los Angeles Councilmember and Council President Eric Garcetti
City of Los Angeles Councilmember Bernard Parks
City of Los Angeles Councilmember Bill Rosendahl
City of Los Angeles Councilmember Greig Smith
City of Los Angeles Councilmember Herb J. Wesson, Jr.
City of Los Angeles Councilmember Jan Perry
City of Los Angeles Councilmember Janice Hahn
City of Los Angeles Councilmember José Huizar
City of Los Angeles Councilmember Tony Cardenas
City of Los Angeles Cultural Affairs Department
City of Los Angeles Department of Building and Safety
City of Los Angeles Department of City Planning
City of Los Angeles Department of Neighborhood Empowerment
City of Los Angeles Department of Public Works, Board of Public Works
City of Los Angeles Department of Public Works, Bureau of Sanitation
City of Los Angeles Department of Public Works, Bureau of Street Services
City of Los Angeles Department of Recreation and Parks
City of Los Angeles Department of Transportation
City of Los Angeles Department of Water and Power
City of Los Angeles Environmental Affairs Department
City of Los Angeles Housing Department
City of Los Angeles Office of Historic Resources
City of Los Angeles Planning Commission
City of Los Angeles Police Department
City of Los Angeles, Chief Administrative Officer
City of Los Angeles, City Attorney
City of Los Angeles, Councilmember Dennis P. Zine
City of Los Angeles, Councilmember Ed P. Reyes
City of Los Angeles, Councilmember Tom LaBonge
City of Los Angeles, Councilmember Wendy Greuel
City of Los Angeles, Los Angeles Zoo
City of Los Angeles, Office of Mayor Antonio Villaraigosa
City of South Gate
City of Vernon
Community Redevelopment Agency, Los Angeles
County of Los Angeles Department of Health Services
County of Los Angeles Department of Parks and Recreation
County of Los Angeles Department of Public Works, Watershed Management Division
County of Los Angeles Department of Regional Planning
County of Los Angeles Flood Control District
County of Los Angeles Health Services Department
County of Los Angeles Metropolitan Transportation Authority
County of Los Angeles Sanitation Districts
County of Los Angeles Supervisor Don Knabe
County of Los Angeles Supervisor Gloria Molina
County of Los Angeles Supervisor Michael Antonovich
County of Los Angeles Supervisor Yvonne B. Burke
County of Los Angeles Supervisor Zev Yaroslavsky
County of Los Angeles Waterworks District
Cypress Park Branch Library
Encino-Tarzana Branch Library
Friends of the Los Angeles River
Glendale Central Library
Korean Culture Center, Inc.
Lincoln Heights Branch Library
Little Tokyo Branch Library
Los Angeles and San Gabriel Rivers Watershed Council
Los Angeles Central Library
Los Angeles Conservancy
Los Angeles Conservation Corps
Los Angeles Neighborhood Land Trust
Los Angeles Unified School District
Metropolitan Transit Authority
Metropolitan Water District
Mountains Recreation and Conservation Authority
Mujeres de la Tierra
North Hollywood Regional Library
Pierce College
Port of Long Beach
Port of Los Angeles
Regional Water Quality Control Board
Robert Louis Stevenson Branch Library
San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy
Santa Monica Baykeeper
Santa Monica Mountains Conservancy
Sherman Oaks Branch Library
South Coast Air Quality Management District
Southern California Association of Governments
Southern California Contractors Association
Studio City Branch Library
The River Project
U.S. Army Corps of Engineers, Los Angeles District
U.S. Department of Commerce/NOAA/National Marine Fisheries
U.S. Department of the Interior
U.S. Department of the Interior, National Park Service
U.S. Environmental Protection Agency, Region 9
U.S. Environmental Protection Agency, Federal Activities Office
U.S. Fish and Wildlife Service
U.S. Representative Adam Schiff
U.S. Representative Brad Sherman
U.S. Representative Diane E. Watson
U.S. Representative Henry Waxman
U.S. Representative Howard L. Berman
U.S. Representative Lucille Roybal-Allard
U.S. Representative Xavier Becerra
U.S. Senator Barbara Boxer
U.S. Senator Dianne Feinstein
West Valley Regional Library
William C. Velasquez Institute
APPENDIX

List of Acronyms and Abbreviations
<table>
<thead>
<tr>
<th>Acronym or Abbreviation</th>
<th>Full Phrase</th>
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<tbody>
<tr>
<td>μg/m³</td>
<td>micrograms per cubic meter</td>
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<tr>
<td>°F</td>
<td>degrees Fahrenheit</td>
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### A
- acfm: actual cubic feet per minute
- AAQS: ambient air quality standards
- A.D.: anno domini
- ADA: Americans with Disabilities Act
- ADWF: average dry weather flow
- afy: acre-feet per year
- AOA: air operations area
- APE: area of potential effects
- AQMP: Air Quality Management Plan
- ARP: Accidental Release Prevention
- ASTM: American Society for Testing and Materials
- ASWRFS: Arroyo Seco Watershed Restoration Feasibility Study
- ATF: air treatment facility
- ATSAC: Automated Traffic Surveillance and Control

### B
- B.P.: before present
- BACT: best available control technology
- BEP: Business Emergency Plan
- bgs: below ground surface
- BMP: best management practices
- BNSF: Burlington Northern-Santa Fe Railway
- BOE: City of Los Angeles Bureau of Engineering
- BOS: City of Los Angeles Bureau of Sanitation
- BUSD: Burbank Unified School District

### C
- CAA: Clean Air Act
- CAAQS: California Ambient Air Quality Standards
- CalARP: California Accidental Release Prevention Program
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<td>Caltrans</td>
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<td>CARB</td>
<td>California Air Resources Board</td>
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<td>Cornfields-Chinatown Opportunity Area Alternative B</td>
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<td>California Coastal Act</td>
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<td>CCAA</td>
<td>California Clean Air Act</td>
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<td>California Coastal Commission</td>
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<td>California Code of Regulations</td>
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<td>California Department of Conservation</td>
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<td>CDFG</td>
<td>California Department of Fish and Game</td>
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<td>CDMG</td>
<td>California Department of Conservation, Division of Mines and Geology</td>
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<td>CDPR</td>
<td>California Department of Parks and Recreation</td>
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<td>CELSOC</td>
<td>Consulting Engineers and Land Surveyors of California</td>
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<td>CEQA</td>
<td>California Environmental Quality Act</td>
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<td>Comprehensive Environmental Response, Compensation and Liability Act</td>
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<td>CERCLIS</td>
<td>Comprehensive Environmental Response, Compensation and Liability Information System</td>
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<td>California Environmental Resources Evaluation System</td>
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<td>California Endangered Species Act</td>
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<td>CFR</td>
<td>Code of Federal Regulations</td>
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<tr>
<td>cfs</td>
<td>cubic feet per second</td>
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<td>CGS</td>
<td>California Geologic Survey</td>
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<td>CHRIS</td>
<td>California Historical Resources Information System</td>
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<td>Capital Improvements Program</td>
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<td>carbon monoxide</td>
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<td>Countywide Integrated Waste Management Plan</td>
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<td>California Ocean Plan</td>
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<td>California Register of Historic Resources</td>
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<td>decibel</td>
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<td>dBA</td>
<td>A-weighted decibel</td>
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<td>DDT</td>
<td>dichloro-diphenyl-trichloroethane</td>
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<td>earth-pressure balance</td>
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<td>Exceptional Quality</td>
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<td>Endangered Species Act</td>
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<td>geographic information system</td>
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<td>Glendale Unified School District</td>
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<td>hydrogen sulfide</td>
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<td>Hotspots Analysis and Reporting Program</td>
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<td>Hazardous Waste Operations and Response</td>
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<td>Habitat Conservation Plan</td>
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<td>household hazardous waste program</td>
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<td>Household Hazardous Waste Element</td>
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<td>High occupancy vehicle</td>
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<td>U.S. Department of Human Health Services</td>
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<td>hazardous, toxic, and radioactive wastes</td>
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<td>U.S. Department of Housing and Urban Development</td>
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<td>Hyperion</td>
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<td>Hz</td>
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<td>I</td>
<td>Interstate</td>
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<td>IBC</td>
<td>International Building Code</td>
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<td>Integrated Basin Management Plan IBMP</td>
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<td>Integrated Resources Plan</td>
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<td>IRWMP</td>
<td>Integrated Regional Water Management Plan</td>
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<td>IWG</td>
<td>interagency working group</td>
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<td>K-12</td>
<td>kindergarten through grade 12</td>
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<td>km</td>
<td>kilometers</td>
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<tr>
<td>Kwh</td>
<td>kilowatt hours</td>
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<td>LACM</td>
<td>Los Angeles County Museum of Natural History</td>
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<td>Los Angeles County Drainage Area</td>
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<td>LADPW</td>
<td>Los Angeles Department of Public Works</td>
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<td>Los Angeles Department of Water and Power</td>
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<td>Los Angeles Fire Department</td>
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<td>LAG</td>
<td>Los Angeles-Glendale Water Reclamation Plant</td>
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<td>LAHCM</td>
<td>Los Angeles Historical Cultural Monument</td>
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<td>LAPD</td>
<td>Los Angeles Police Department</td>
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<td>LAPL</td>
<td>Los Angeles Public Library</td>
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<td>LARFS</td>
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<td>LASHP</td>
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<tr>
<td>LAUSD</td>
<td>Los Angeles Unified School District</td>
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<tr>
<td>LAX</td>
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</tr>
<tr>
<td>lb/day</td>
<td>pounds per day</td>
</tr>
<tr>
<td>lb/yr</td>
<td>pounds per year</td>
</tr>
<tr>
<td>LCP</td>
<td>local coastal program</td>
</tr>
<tr>
<td>Leq</td>
<td>equivalent noise level</td>
</tr>
<tr>
<td>LEV</td>
<td>low emissions vehicle</td>
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<tr>
<td>LIM</td>
<td>Land Inventory and Monitoring</td>
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<tr>
<td>LoCAT</td>
<td>Digester Gas Sulfur Removal</td>
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<td>LOS</td>
<td>level of service</td>
</tr>
<tr>
<td>LRRMP</td>
<td>Los Angeles River Revitalization Master Plan</td>
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<tr>
<td>LUST</td>
<td>Leaking Underground Storage Tank</td>
</tr>
<tr>
<td>M</td>
<td>meter</td>
</tr>
<tr>
<td>Ma</td>
<td>million years before present</td>
</tr>
<tr>
<td>MATES II</td>
<td>Multiple Air Toxics Exposure Study</td>
</tr>
<tr>
<td>MBTA</td>
<td>Migratory Bird Treaty Act</td>
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<tr>
<td>MCL</td>
<td>maximum contaminant level</td>
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<tr>
<td>Metro</td>
<td>Los Angeles County Metropolitan Transit Authority</td>
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<tr>
<td>Metropolitan</td>
<td>Metropolitan Water District of Southern California</td>
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<tr>
<td>MF</td>
<td>microfiltration</td>
</tr>
<tr>
<td>MG</td>
<td>million-gallon</td>
</tr>
<tr>
<td>mgd</td>
<td>million gallons per day</td>
</tr>
<tr>
<td>MHB</td>
<td>Materials Handling Building</td>
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<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
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<tr>
<td>mph</td>
<td>miles per hour</td>
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<td>MRZ</td>
<td>mineral resource zone</td>
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<td>mean sea level</td>
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<tr>
<td>MTBE</td>
<td>methyl-tert-butyl-ether</td>
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<td>Mw</td>
<td>moment magnitude</td>
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<td>NAHC</td>
<td>Native American Heritage Commission</td>
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<td>NDFE</td>
<td>Nondisposal Facility Element</td>
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<tr>
<td>NdN</td>
<td>nitrification/denitrification</td>
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<td>NEIS I</td>
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<td>NESHAP</td>
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<td>NH₃</td>
<td>ammonia</td>
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<td>NHPA</td>
<td>National Historic Preservation Act</td>
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<tr>
<td>NO</td>
<td>nitric oxide</td>
</tr>
<tr>
<td>NOI</td>
<td>Notice of Intention</td>
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<tr>
<td>NO₂</td>
<td>nitrogen dioxide</td>
</tr>
<tr>
<td>NOP</td>
<td>Notice of Preparation</td>
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<tr>
<td>NORS</td>
<td>North Outfall Replacement Sewer</td>
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<td>NOS</td>
<td>North Outfall Sewer</td>
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<tr>
<td>NOₓ</td>
<td>nitrogen oxides</td>
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<td>NPDES</td>
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<td>NPL</td>
<td>National Priority List</td>
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<td>NPS</td>
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<td>NRCS</td>
<td>National Resources Conservation Service</td>
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<tr>
<td>NRHP</td>
<td>National Register of Historic Places</td>
</tr>
<tr>
<td>NWI</td>
<td>National Wetland Inventory</td>
</tr>
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</table>

| O & M                   | operations and maintenance |
| O₃                      | ozone |
| OSH                     | Occupational Safety and Health |
| OSHA                    | Occupational Safety and Health Act |

<p>| P                        | lead |</p>
<table>
<thead>
<tr>
<th>Acronym or Abbreviation</th>
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<tr>
<td>PCE</td>
<td>perchloroethylene</td>
</tr>
<tr>
<td>PEL</td>
<td>permissible exposure limit</td>
</tr>
<tr>
<td>PEIR</td>
<td>Programmatic Environmental Impact Report</td>
</tr>
<tr>
<td>PM$_{10}$</td>
<td>respirable particulate matter</td>
</tr>
<tr>
<td>PM$_{2.5}$</td>
<td>fine particulate matter</td>
</tr>
<tr>
<td>POTW</td>
<td>publicly owned treatment works</td>
</tr>
<tr>
<td>ppb</td>
<td>parts per billion</td>
</tr>
<tr>
<td>ppd</td>
<td>pounds per day</td>
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<tr>
<td>ppm</td>
<td>parts per million</td>
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<tr>
<td>ppmv</td>
<td>parts per million by volume</td>
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<tr>
<td>PPV</td>
<td>peak particle velocity</td>
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<tr>
<td>PRC</td>
<td>Public Resources Code</td>
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<tr>
<td>Proposed Project</td>
<td>Preferred Alternative</td>
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<td>PWWF</td>
<td>peak wet weather flow</td>
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<td>RCPG</td>
<td>Regional Comprehensive Plan and Guide</td>
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<td>RCRA</td>
<td>Resource Conservation and Recovery Act</td>
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<td>Regional Board</td>
<td>Regional Water Quality Control Board</td>
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<td>RG-A</td>
<td>River Glen Opportunity Area Alternative A</td>
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<td>RG-B</td>
<td>River Glen Opportunity Area Alternative B</td>
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<td>RIO</td>
<td>River Improvement Overlay</td>
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<td>RMP</td>
<td>Risk Management Plan</td>
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<tr>
<td>rms</td>
<td>root mean square</td>
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<tr>
<td>RO</td>
<td>reverse osmosis</td>
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<td>ROI</td>
<td>region of influence</td>
</tr>
<tr>
<td>ROG</td>
<td>reactive organic gas</td>
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<tr>
<td>ROW</td>
<td>right-of-way</td>
</tr>
<tr>
<td>ROx</td>
<td>oxygen reactors</td>
</tr>
<tr>
<td>RPA</td>
<td>Registered Professional Archaeologist</td>
</tr>
<tr>
<td>RPS</td>
<td>Renewable Portfolio Standard</td>
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<td>RTP</td>
<td>Regional Transportation Plan</td>
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<td>------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>RV</td>
<td>recreational vehicle</td>
</tr>
<tr>
<td>SAFE</td>
<td>solvents, automotive, flammables, and electronics</td>
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<tr>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act</td>
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<tr>
<td>SCAB</td>
<td>South Coast Air Basin</td>
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<tr>
<td>SCAG</td>
<td>Southern California Association of Governments</td>
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<td>SCAQMD</td>
<td>South Coast Air Quality Management District</td>
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<tr>
<td>SCCIC</td>
<td>South Central Coast Information Center</td>
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<tr>
<td>SEA</td>
<td>Significant Ecological Areas</td>
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<tr>
<td>SEL</td>
<td>sound exposure level</td>
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<tr>
<td>SFB</td>
<td>San Fernando Basin</td>
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<tr>
<td>SHPO</td>
<td>State Historic Preservation Officer</td>
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<td>SIP</td>
<td>State Implementation Plan</td>
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<tr>
<td>SLIC</td>
<td>Spills Leaks Investigations and Cleanup</td>
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<tr>
<td>SMARA</td>
<td>Surface Mining and Reclamation Act</td>
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<tr>
<td>SO₂</td>
<td>sulfur dioxide</td>
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<td>SR</td>
<td>State Route</td>
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<td>SRCRD</td>
<td>Solid Resources Citywide Recycling Division</td>
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<td>SRF</td>
<td>State Revolving Fund</td>
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<td>SRRE</td>
<td>Source Reduction and Recycling Element</td>
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<td>State Water Resources Control Board</td>
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<td>SUSMP</td>
<td>Standard Urban Stormwater Mitigation Plan</td>
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<td>SVP</td>
<td>Society of Vertebrate Paleontology</td>
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<td>SWMPP</td>
<td>Solid Waste Management Policy Plan</td>
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<tr>
<td>TAC</td>
<td>toxic air contaminant</td>
</tr>
<tr>
<td>TBM</td>
<td>tunnel-boring machine</td>
</tr>
<tr>
<td>TCE</td>
<td>trichloroethylene</td>
</tr>
<tr>
<td>The Gas Company</td>
<td>Southern California Gas Company</td>
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<tr>
<td>Tillman</td>
<td>Donald C. Tillman Water Reclamation Plant</td>
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<tr>
<td>TISA</td>
<td>Terminal Island Service Area</td>
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<tr>
<td>TITP</td>
<td>Terminal Island Treatment Plant</td>
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<tr>
<td>TLF</td>
<td>Truck Loading Facility</td>
</tr>
<tr>
<td>TMDL</td>
<td>total maximum daily load</td>
</tr>
<tr>
<td>TPH</td>
<td>Total Petroleum Hydrocarbons</td>
</tr>
<tr>
<td>tpy</td>
<td>tons per year</td>
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<tr>
<td>U</td>
<td>United States</td>
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<tr>
<td>U.S. 101</td>
<td>U.S. Highway 101</td>
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<td>USB</td>
<td>Unified School Board</td>
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<td>USC</td>
<td>United States Code</td>
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<td>UBC</td>
<td>Uniform Building Code</td>
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<td>Upper Los Angeles River Area</td>
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<td>URP</td>
<td>Urban Runoff Plant</td>
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<tr>
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<td>United States Department of Agriculture</td>
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<td>USEPA</td>
<td>United States Environmental Protection Agency</td>
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<tr>
<td>USFWS</td>
<td>United States Fish and Wildlife Service</td>
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<tr>
<td>USGS</td>
<td>United States Geologic Survey</td>
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<tr>
<td>UV</td>
<td>ultraviolet</td>
</tr>
<tr>
<td>V</td>
<td>volume to capacity</td>
</tr>
<tr>
<td>V/C</td>
<td>vibration decibels</td>
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<tr>
<td>VdB</td>
<td>volatile organic compound</td>
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<td>VOC</td>
<td>Valley Outfall Relief Sewer</td>
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<td>VORS</td>
<td>Valley Spring Lane Interceptor Sewer</td>
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<tr>
<td>vplph</td>
<td>vehicles per lane per hour</td>
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<td>V-R</td>
<td>velocity reduction</td>
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<tr>
<td>VSLIS</td>
<td>Valley Spring Lane Interceptor Sewer</td>
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<tr>
<td>W</td>
<td>Waste Activated Sludge Thickening</td>
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<td>WRCB</td>
<td>California Water Resources Control Board</td>
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<td>WLA</td>
<td>waste load allocation</td>
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<td>WMI</td>
<td>Watershed Management Initiative</td>
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<td>WRP</td>
<td>water reclamation plant</td>
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<td>Full Phrase</td>
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</tr>
<tr>
<td>wtpd</td>
<td>wet tons per day</td>
</tr>
<tr>
<td>X</td>
<td></td>
</tr>
<tr>
<td>yd³</td>
<td>cubic yard</td>
</tr>
<tr>
<td>Y</td>
<td></td>
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<tr>
<td>Z</td>
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</tr>
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</table>
Terminology and Glossary
A

Alluvium – sediment deposited by flowing water as in a river bed.

Anticline – an upward or convex fold of rock.

Archaeological resources – surface or buried material remains, buried structures, or other items used or modified by people.

Arterial green streets – green streets along major streets within the River Corridor that lead to the Los Angeles River, eventually about every half-mile.

Attainment area – a geographic area which is in compliance with the National and/or California Ambient Air Quality Standards (NAAQS or CAAQS).

B

Best management practice – a measure (or combination of measures) that is determined to be the most effective, practical, and technologically sophisticated means to better manage activities in order to prevent or reduce undesired effects, such as contamination.

Bio-filtration area – a pollution control technique using living material to filter or chemically process pollutants.

Bio-swale – landscape element designed to remove silt and pollution from surface runoff water.

Blind thrust faults – faults that do not and never have extended upward to the surface of the earth.

Brownfield – real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

C

Cadmium – chemical element with the atomic number of 48; known to cause cancer and occurs with zinc ores; largely in batteries.

California Register Historical Resources (CRHR) – the California Register of Historical Resources (CRHR) is a state designation that identifies resources deemed worthy of preservation on a state level. The criteria are similar to those of the National Register of Historic Places (NRHP), but the designation focuses upon resources of statewide significance. The CRHR automatically includes resources listed on the NRHP as are State Landmarks and Points of Historical Interest.

Carbon monoxide (CO) – a colorless, odorless gas resulting from the incomplete combustion of fossil fuels. Over 80% of the CO emitted in urban areas is contributed by motor vehicles. CO interferes with the blood's ability to carry oxygen to the body's tissues and results in numerous adverse health effects. CO is a criteria air pollutant.

Coliform – bacteria such as Escherichia coli; commonly-used as an indicator of sanitary quality of foods and water; abundant in the feces of warm-blooded animals.

Criteria air pollutant – an air pollutant for which acceptable levels of exposure can be determined and for which an ambient air quality standard has been set. Examples include: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and PM-10 (see individual pollutant definitions).

Criteria of adverse effect – the criteria of adverse effect is defined in 36 CFR 800.5a.: “An adverse effect is found when an action may alter the characteristics of a historic property that qualify it for inclusion in NRHP in a manner that would diminish the integrity of the property’s location, design, setting,
workmanship, feeling, or association. Adverse effects may include reasonably foreseeable effects caused by the action that may occur later in time, be farther removed in distance, or be cumulative."

Cultural resources – locations of human activity, occupation, or use. They include expressions of human culture and history in the physical environment, such as archaeological sites, historic buildings and structures, or other culturally significant places.

D

Daylighting – exposing the discharge end of a culverted river, creek, or stormwater drainage. This technique is employed to help improve water quality and hydraulic capacity.

Debris basin – typically consist of an earthen dam or other barrier constructed across a drainageway or other suitable location for collecting sediment, silt, sand, gravel, or other debris moving from adjacent lands.

Dorsoventral – anatomical description; pertaining to the dorsal and ventral aspects of the body; dorso means the back and ventral is the front or belly; animal is broad and flat.

E

Easement – an interest in land owned by another that entitles its holder to a specific limited use. A right-of-way is usually an easement.

Ecosystem functions – the physical, chemical, and biological processes or attributes that contribute to the self-maintenance and sustainability of an ecosystem.

Ethnohistoric archaeological resources – Native American archaeological sites that also show evidence of early European contact such as the presence trade beads.

Ethnohistory – a description of the native cultures that were encountered by the Europeans using contemporary documents and oral histories.

F

Fault – a fracture in the crust of the earth along which rocks on one side have moved relative to those on the other side.

Fugitive dust – dust particles which are introduced into the air through certain activities such as soil cultivation, off-road vehicles, or any vehicles operating on open fields or dirt roadways.

G

Gateways – strategically-placed access points to the river along the River Corridor that not only provide convenient public access to the river, but also are designed to raise local awareness of river revitalization through a common theme of revitalization reflected in interpretive signage, public art, trash containers, rest stops, and Americans with Disabilities Act accessible ramps and other structures.

Green streets – the LARRMP presents three types of green streets that can be developed within the River Corridor: Local green streets, arterial green streets, and regional greenway connections. Features common to the three types of green streets are landscaping with native trees and shrubs to help achieve the “greenway connection” and “greenway extension” objectives; safe bike routes; traffic calming measures, such as speed humps, raised crosswalks, neck-downs, and textured paving; river theme street furniture and direction signs; and water quality enhancement measures, such as bio-filtration, bio-swales, and infiltration strips.
Hemiparasitic – plants that are typically parasitic on other plants, but also contain chlorophyll so they can photosynthesize.

Herpetofauna – reptiles and amphibians, to include salamanders, frogs, lizards, and snakes.

Hertz – the frequency of electrical vibrations (cycles) per second.

Historic archaeological resources – archaeological sites whose deposits that post-date European contact.

Historic property – a historic property is any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

Historic resources – under CEQA a historic resource is any object, building, structure, site, area, place, record, or manuscript that is listed in, or determined to be eligible for listing in the California Register of Historical Resources, or a local register of historical resources, or any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.

Impaired water body – waters not meeting established water quality standards; listed as impaired under Section 303(d) of the Clean Water Act.

Impervious surface – impermeable surfaces prevent the infiltration or passage of rainwater through it; typically applies to streets, parking lots, rooftops, and sidewalks.

Improvement – a change or addition that improves, or that makes the previous condition in some manner better.

Infiltration strip – a densely vegetated (planted) strip of land, engineered and constructed to accept and manage runoff through settling, filtration, absorption and infiltration processes.

Invasive species – nonnative plants and animals that generally out-compete natives due to their lack of natural predators and disease.
L

$L_{dn}$ – day-night level. It is a descriptor of noise level based on energy equivalent noise level (Leq) over the whole day with a penalty of 10 dB(A) for night time noise.

Linear parks – narrow, straight strips of land, usually developed with native vegetation, for the enjoyment of the public, having facilities for rest and recreation.

Liquefaction – caused when the ground shakes wet granular soil and it changes to more of a liquid state and becomes unstable.

Local green streets – green streets adjacent to and leading to the Los Angeles River that would provide safe and visible neighborhood connections and access points to the river.

M

N

National Historic Preservation Act (NHPA) – the principal federal law addressing cultural resources. The NHPA describes the Section 106 process for identifying and evaluating historic properties; for assessing the effects of federal actions on historic properties; and for consulting to avoid, reduce, or minimize adverse effect.

National Register of Historic Places (NRHP) – the official list of cultural resources worthy of preservation. The NRHP is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archeological resources. Properties listed in the NRHP include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture.

Nitrogen oxides (oxides of nitrogen, $NO_x$) – a general term pertaining to compounds of nitric oxide (NO), nitrogen dioxide ($NO_2$), and other oxides of nitrogen. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO is a criteria air pollutant, and may result in numerous adverse health effects.

Non-attainment area – a geographic area identified by the US Environmental Protection Agency and/or California Air Resources Board as not meeting either National Ambient Air Quality Standards or California Ambient Air Quality Standards for a given pollutant.

O

Opportunity – a favorable or advantageous circumstance or combination of circumstances.

Opportunity areas – five demonstration areas along the Los Angeles River where location-specific configurations of river channel modification, open space, and reinvestment measures have been selected to reflect existing land form and environmental characteristics, as well as community-based LARRMP revitalization opportunities and objectives. The five selected opportunity areas include Canoga Park, River Glen, Taylor Yard, Chinatown-Cornfields, and Downtown Industrial.
PM$_{10}$ – an air pollutant consisting of small particles with an aerodynamic diameter less than or equal to a nominal 10 micrometer (about 1/7 the diameter of a single human hair). Their small size allows them to make their way to the air passages deep within the lungs where they may be deposited and result in adverse health effects. PM10 also causes visibility reduction.

PM$_{2.5}$ – an air pollutant consisting of small particles with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers.

**Paleontological resources** – the fossilized remains of organisms that lived in a region in the geologic past and their accompanying geologic strata.

**Paseos** – public streets or walkways designed for pedestrian movement associated with a mix of community interaction and commercial opportunities. These features may also be combined with open space or access to the river.

**Pedestrian survey** – a method of examining an area for archaeological artifacts and features in which surveyors, spaced at regular intervals, systematically walk over the area being investigated.

**Pocket parks** – small plots of land, typically including native vegetation, developed for the enjoyment of the public, having facilities for rest and recreation. This type of area would be developed in small local spaces within the River Corridor to provide a variety of passive, limited active, and rest areas. These areas could be developed for such purposes as outdoor educational experiences adjacent to schools, joint-use neighborhood areas, and street-end or cul-de-sac parks.

**Prehistoric archaeological resources** – archaeological sites whose deposits date to the time before the European presence in Los Angeles.

**Prehistory** – the time period and cultures that inhabited the Los Angeles Basin before the arrival of Europeans.

**Promenade** – a public area used for walking and gathering.

Q

R

**Reactive organic gas (ROG)** – a reactive chemical gas, composed of hydrocarbons, that may contribute to the formation of smog. Also sometimes referred to as Non-Methane Organic Compounds (NMOCs).

**Regional greenway connections** – green streets similar to arterial green streets, with additional focus on those arterial streets that have existing bikeways and pedestrian routes, as well as nearby public transportation links and nodes.

**Restoration** – a return to a condition that represents or reconstructs the original form (such as with physical structures or facilities). In the case of natural systems and landscape communities, this includes but is not limited to: the addition or reintroduction of plant and wildlife habitat to create a more indigenous condition, and/or to restore elements of natural system functioning. Restoration projects typically include the planning, design, implementation, monitoring, and reporting that is necessary to ensure that project objectives are successfully met.

**Revitalize** – to bring new life or vigor to; to restore to a better state; to refresh or renew – whether a natural system or a neighborhood or community.

**Revitalization corporation** – a nonprofit group to provide guidance and take the lead in implementing measures and developments within the River Corridor.

**Right-of-way** – a path or route that may lawfully be used.
Riparian – the interface between land and a flowing surface water body.

River Corridor – comprising the Los Angeles River plus ½ mile corridor on either side of the river, plus the expanded boundaries associated with the five Opportunity Areas described above. This is also the “planning area” covered in the LARRMP, and the “study area” covered in this PEIR/EIS.

River foundation – a not-for-profit group formed to raise funds to achieve the LARRMP revitalization goals and objectives.

River Improvement Overlay District – comprising a set of design standards guidelines to be applied for all private, multifamily properties abutting the river.

S

Sedimentary – rocks formed from the deposition of sediment.

Seep – a mixture of crude oil, asphaltum (tar), natural gas, and water. Occurs near oil and gas fields fed by the underground reservoirs of oil and gas.

Selenium – a chemical element with the atomic number 34; nonmetal that is chemically related to sulfur; often used in photocells; naturally found in trace amounts in cells; however, it is toxic in large amounts.

Spreading grounds – an area to store and allow water to soak into the ground to recharge groundwater aquifers.

Stormwater outfall – a discharge point for stormwater runoff which has been collected in a conveyance system.

Sustainability – to keep in existence; maintain; to supply with necessities or nourishment. In recent usage, the term refers to continued viability – whether from an economic or environmental standpoint – while minimizing consumption of resources.

T

Total maximum daily loads (TMDLs) – specifies the maximum amount of a pollutant that a water body can receive and still meet water quality standards and allocates pollutant loadings among point and nonpoint pollutant sources.

Traditional cultural properties – places associated with the cultural practices or beliefs of a living community. The significance of these places sites is derived from the role the property plays in a community’s cultural identity as defined by its beliefs, practices, history and social institutions.

U

Unclassified – not placed or included in a class or category.

V

W

Watershed – an area that drains to a common waterway, such as a stream, lake, estuary, wetland, or even the ocean.
Wetlands — those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions; generally include swamps, marshes, bogs, and similar areas.
Matrix of Documents Reviewed for the PEIR/EIS
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Public Comments and Responses
F.1 Introduction

This document is a combined Programmatic Environmental Impact Report (PEIR) and Programmatic Environmental Impact Statement (PEIS) for the Los Angeles River Revitalization Master Plan (LARRMP) (City of Los Angeles 2006b). This combined PEIR/PEIS document addresses potential environmental impacts of implementing the LARRMP in the foreseeable future. Revitalization measures for the Los Angeles River would begin to be implemented within five years of the anticipated adoption of the LARRMP in spring 2007 (near term) and would continue for many years (long term). The City of Los Angeles, Department of Public Works (LADPW) Bureau of Engineering (BOE) is the California Environmental Quality Act (CEQA) lead agency, and the US Army Corps of Engineers, Los Angeles District (Corps) is the National Environmental Policy Act (NEPA) lead agency for this combined PEIR/PEIS.

The Draft PEIR/PEIS was circulated for public review and comment for 54 days (February 02, 2007 to March 27, 2007), exceeding typical CEQA and NEPA regulations. During this period, three public hearings were held in three different locations on three separate dates (Hollenbeck Middle School, February 24, 2007; Canoga Park High School, February 27, 2007; Los Angeles Metropolitan Water District, February 28, 2007) to provide opportunities for presenting oral and written comments on the Draft PEIR/PEIS. In addition, individuals and representatives of organizations and agencies were invited to submit written comments without attending the public hearings. All comments, as well as City of Los Angeles and Corps responses, are included in this Appendix.

This Final PEIR/PEIS contains the information contained in the Draft PEIR/PEIS (State Clearinghouse No. 2006041050), comments received during the Draft PEIR/PEIS circulation period, and the responses to these comments. Changes to the text of the draft were made, where applicable, in response to comments received. Where additions have been made to the text of the Draft PEIR/PEIS, these changes are noted as underlined text in this document. Deletions made in the text have not been noted.

In compliance with CEQA and NEPA regulations, this Appendix also includes a list of agencies, organizations, and individuals commenting on the Draft PEIR/PEIS, copies of their comments, and the responses to these comments. In the responses to each comment provided on the following pages, the places in the Final PEIR/PEIS where changes were made have been indicated, as applicable. The co-lead agencies greatly appreciate the participation of all those who commented, and while not all comments required changes to the Final PEIR/PEIS, all comments are included in this document, as part of the public record.
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<td>I-24</td>
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<td>William Preston Bowling</td>
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<td>I-27</td>
<td>Glen Wilson</td>
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<td>B. Alberti</td>
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<tr>
<td>T-48</td>
<td>R. Franco</td>
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</table>
F-1-1: We concur. We will change language in the first sentence of Section 3.7.1.3 of the Final PEIR/PEIS, to read, “In general, the 32 mile stretch of the River in Los Angeles impacts very few federal- or state-listed endangered or threatened species. U.S. Fish and Wildlife Service records indicate that the Sepulveda Basin is a suitable habitat for the endangered least Bell’s vireo (*Vireo bellii pusillus*). All future specific projects within the River Corridor at the Sepulveda Basin would assess impacts on this species.”
Comments

F-1-1 does not address the potential for effects to least Bell's vireo from activities that may occur under the LARRMP. All activities associated with this project within the Sepulveda Basin should address potential effects to the least Bell's vireo.

F-1-2 We also have concerns regarding the Sepulveda Sports Complex Facility, (page 3-85). The document states that the Los Angeles Department of Public Works has developed a proposal to construct a sports complex on approximately 65 acres in the Sepulveda Basin on land that is owned by the Corps. Our office has had previous discussions with the Corps, Los Angeles District regarding this sports complex. During these discussions, we notified Corps staff that we have records of least Bell's vireo occurrences at the Sepulveda Basin. Although the development of the sports complex is identified as a separate action from the activities associated with the LARRMP, we do not believe that the Corps has addressed the potential effects to the least Bell's vireo from this sports complex or the activities associated with the LARRMP. Please contact Eric Morissette of my staff at (805) 644-1766 ext. 223 if you have any questions regarding FWS comments.

USGS Comments

GENERAL COMMENT

The draft EIR/EIS states that an objective of the project is to improve and restore natural native habitats and to improve the ecological functioning of the river (Project Goals and Objectives). Although the project site is highly ecologically fragmented, the report identifies five "opportunity areas" for ecological recovery, including Canoga Park along the riverfront. As the project site is within the historic range of the southwestern willow flycatcher, the USGS offers a citation (Sogge and others, 2003) that would be relevant to restoring suitable habitat for this imperiled bird.

SPECIFIC COMMENTS

Section 3.5.1.1. Hydrology, page 3-23, third full paragraph

Peak streamflows at the Sepulveda Dam gage site (gage number 11092450) have greatly exceeded the 92 cubic feet per second (cfs) value indicated in the text. The author of this section should consult the peak flow information for this station available on-line at: http://waterdata.usgs.gov/nwis/nwiseman?site_no=11092450&agency_cd=USGS

Also, the discussion of streamflow data in this paragraph is somewhat confusing. A different period of record is presented for each station, making the data not directly comparable. The same period of record should be used for all stations. Note that the very short (26 month) period of record for the Wardlow station is unlikely to be representative of long-term streamflow conditions. A map showing the location of the stations would be helpful.

Responses

F-1-2: The Sepulveda Sports Complex is a project for which the U.S. Army Corps of Engineers is preparing a NEPA document (FONSI). The City will implement all measures recommended by the U.S. Fish and Wildlife Service as well as the California Department of Fish and Game. As with all future LARRMP projects, those within the Sepulveda Basin would be the subject of specific subsequent environmental reviews; these would note the recorded presence of the least Bell’s vireo as indicated by the U.S. Fish and Wildlife Service.

F-1-3: Comment acknowledged. Citation and reference will be added to Final PEIR/PEIS.

F-1-4: The 92 cubic feet per second quoted in the text refers to the maximum monthly mean average for the summer months (June to August) with the maximum occurring on July 2005 based on the monthly data summary provided at referenced website. Dry weather flow out of the Sepulveda Basin is largely influenced by the outflow from the Tillman Water Reclamation Plant, which began continuous operation in 1985 and doubled in capacity in 1991. Recent monitoring data—primarily within the past 2 decades—is more representative of dry weather flows due to an increase in treated effluent from urban development in the area of service. Sentence changed to clarify the origins and nature of the data.

F-1-5: The intent of the paragraph is to show variability of the flow in the L.A. River at different locations along the river. The same periods of record analyzed and an additional data added for the discussion of the flow variability along the length of the river. The Wardlow Station period of record is a typo with the period of record being 1988 to 2000. The paragraph was rewritten for clarity.
Comments

Thank you for the opportunity to review this project.

Sincerely,

Patricia Sanderson Port
Regional Environmental Officer

cc:
Director, OEPIC
FWS, CNO
USGS

Responses

REFERENCE

March 26, 2007

Catherine Shuman
U.S. Army Corps of Engineers
Los Angeles District
915 Wilshire Blvd, Suite 980
Los Angeles, CA 90017

Subject: Draft Programmatic Environmental Impact Statement (DEIS) for the Los Angeles River Revitalization Master Plan (CEQ# 70028)

Dear Ms. Shuman:

The Environmental Protection Agency (EPA) has reviewed the DEIS referenced above. Our review is pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our review authority under Section 309 of the Clean Air Act. Our detailed comments are enclosed.

The Los Angeles River Revitalization Master Plan (LARRMP) is a conceptual framework to guide revitalization of the Los Angeles River. The goals of the project are improving the ecosystem functions along the River as well as creating economic development opportunities for river-adjacent communities. The LARRMP consists of 239 projects over a 32 mile section of the Los Angeles River and includes: physical transformations to the river channel, open space development, plans for restoring a more natural system, and policy recommendations for revitalizing adjacent communities. We have rated this project as Lack of Objections (LO) (see enclosed Summary of Rating Definitions).

EPA supports the goals of the LARRMP and understands, from our conversation with the Corps of Engineers, that plan details will be included in a subsequent Corps of Engineers (Corps) Feasibility Study Draft Environmental Impact Report/Environmental Impact Statement (Feasibility Study). However, the LARRMP is not clear about how this NEPA/CEQA process will inform the Feasibility Study or the timeline for the future analysis. It would have been appropriate to wait until the completion of the Feasibility Study to release a NEPA document that presents the public with a comprehensive review of the project components. Nevertheless, EPA has developed specific recommendations for the forthcoming Feasibility Study, as well as the Final EIS. These recommendations are enclosed in our detailed comments.

F-2-2: Comment acknowledged. We concur.

F-4
Comments

While the LARRMP is needed to help address long-standing environmental, social, and economic problems, construction of projects of this size can have potentially significant impacts. EPA’s primary concerns are impacts to low income and minority communities and air quality. As we discussed with you recently, EPA supports the Corps commitment to strong monitoring and mitigation measures for project-related impacts.

We appreciate the opportunity to review this DEIS. When the FEIS is released for public review, please send (2) copies to the address above (mailcode: CED-2). We would be happy to discuss more specific recommendations, including ecosystems needs and water quality issues, during the preparation of the Feasibility Study. If you have any questions, please contact me at 415-972-3846 or Summer Allen, the lead reviewer for this project at 415-972-3847 or allen.summer@epa.gov.

Sincerely,

Nova Blazej, Manager
Environmental Review Office

Main ID # 4776

Enclosures:  Summary of EPA’s Rating Definitions
Detailed Comments

Cc:  Carol Armstrong, LARRMP Project Manager
City of Los Angeles, Bureau of Engineering
Comments on the LA River Revitalization Master Plan Programmatic DEIS

Economic Development

One of the main project goals is to create economic development opportunities to enhance and improve river-adjacent communities. We recognize that a detailed economic analysis will be done as part of the Feasibility Study to determine project alternatives that best consider the needs of the biological resources and the local economy.

Recommendations:
The Final Environmental Impact Statement (FEIS) should also include a summary of the possible economic benefits that could be realized with implementation of the additional construction included in the Alternative B variations.

Scoping Comments

We are supportive of the extensive coordination between the City, County, and other interested parties, as well as the proposed formation of the Los Angeles River Authority, Los Angeles River Foundation, and the Los Angeles river Revitalization Corporation.

Recommendations:
Given the extensive community discussion that has been initiated in the formation of the project, the FEIS should include a summary of the public scoping comments and how those are being or will be addressed through the project.

Air Quality

Some information in the FEIS should be revised. In particular, the discussion of the number of days exceeding the National Ambient Air Quality Standards (NAAQS) after 1999 on page 3-5 is not correct for 8 hour ozone, and should be revised. In each year since 1999, the South Coast Air Basin has exceeded the 8-hour NAAQS at least 80 days per year. In addition, regarding the California Air Resources Board (CARB) mobile source discussion on pp. 4-6, CARB has been working to develop a statewide strategy as part of the 2007 California State Implementation Plan (SIP) or 8-hour ozone. The most recent version was published on January 31, 2007, and can be found at: http://www.arb.ca.gov/planning/sip/2007casip.htm.

Recommendations:
The FEIS should include the most recent data on air quality attainment status.

Comments for the Upcoming Feasibility Study DEIR/DEIS

Environmental Justice

Executive Order 12898 on Environmental Justice addresses disproportionate and adverse impacts of federal actions on minority and low-income populations. The DEIS identifies large Latino and low-income populations that exist within the vicinity of the River corridor. It notes that 18% of individual in the corridor are below the poverty line, vs. 12% in the U.S. in general.

Responses

F-2-3: Comment acknowledged. Chapter 7 of the LARRMP provides a general discussion of the potential costs and benefits associated with the alternative development concepts presented in the Plan. The Corps will complete an appropriate regional economic development analysis during the Feasibility Study.

F-2-4: A Summary of the comments received during the scoping phase is presented in Section 1.8.2 of the PEIR/PEIS. The majority of the issues raised during scoping pertain to activities that should be undertaken at the time when specific LARRMP implementation projects are brought forward for environmental review. Those topics and issues raised during scoping that pertain to the Programmatic level of analysis in this PEIR/PEIS have been addressed.

F-2-5: Comment acknowledged. We concur. Text changes will be made in Section 3.3.2 (Air Quality Conditions in Project Area), and Section 4.3.1.1 (Regulatory Framework), will be modified in accordance with EPA comments.

F-2-6: Comment acknowledged. We concur. The Feasibility Study will address environmental justice concerns. The Study’s environmental review process (EIS/EIR) will provide the opportunity for all members of the public to provide input on alternatives and project elements throughout the Study process, as well as identify appropriate project-specific mitigation measures.
Likewise, 15% of the families in the area are below the poverty line, compared to 9% of families in the U.S. in general (p.3-129). In 2004, 38-75% of those in the opportunity areas were Hispanic and these populations have higher poverty rates (16-32%).

**F-2-7**: Comment acknowledged. The Feasibility Study and accompanying NEPA/CEQA environmental evaluations will identify and address impacts (including cumulative impacts) associated with potential future ecosystem restoration projects along the Los Angeles River. Such impacts will be further addressed at the project level when specific projects are proposed and evaluated.

**F-2-8**: Comment acknowledged. We concur. The Feasibility Study and associated environmental NEPA and CEQA documents will address all criteria pollutants, including CO, O3, PM10, PM2.5, in light of the current non-attainment status, and in accordance with SCAQMD and the CAA standards and requirements, and will address employing appropriate best management practices, best available control measures, and project-specific mitigation measures, including the development and use of construction emission mitigation plans and mitigation monitoring plans.
applies if projects will be funded by the Federal Highways Administration, Federal Transit Administration, or any agency that has been delegated project approval by these agencies. It also applies if projects are determined to be regionally significant as defined at 40 CFR 93.101 and are approved by a regular recipient of federal highway or transit funds, such as Caltrans and most local transportation agencies. A further demonstration of transportation conformity—at the project level—is required if a project is located in a nonattainment or maintenance area.

**Recommendations:**

Due to the serious nature of the PM10 and PM2.5 conditions in SCAB, EPA recommends that the best available control measures (BACM) for these pollutants be implemented at all times and that the Feasibility Study, FEIS and Record of Decision (ROD) incorporate a Construction Emissions Mitigation Plan (CEMP). While we recognize that Best Management Practices (BMPs) for fugitive dust have already been proposed (DEIS, p. 264 and 265), we recommend that (1) all applicable requirements under SCAQMD Rules, (2) the Caltrans Standard Construction Specifications and recommended measures listed on pages 264 and 265 of the DEIS, and (3) the following additional and/or revised measures, be incorporated into a CEMP associated with the Feasibility Study:

**Mobile and Stationary Source Controls:**

- Reduce use, trips, and unnecessary idling from heavy equipment.
- Maintain and tune engines per manufacturer’s specifications to perform at EPA certification levels and to perform at verified standards applicable to retrofit technologies. Employ periodic, unscheduled inspections to limit unnecessary idling and to ensure that construction equipment is properly maintained, tuned, and modified consistent with established specifications.
- Prohibit any tampering with engines and require continuing adherence to manufacturers’ recommendations.
- Require that leased equipment be 1996 model or newer unless cost exceeds 110 percent or average lease cost. Require 75 percent or more of total horsepower of owned equipment to be used be 1996 or newer models. If practicable, lease newer and cleaner equipment meeting the most stringent of applicable Federal or State Standards (see table: http://arb.ca.gov/msprog/diesel/documents/OFF-Road%20Diesel%20Stds.xls). In general, only Tier 2 or newer engines should be employed in the construction phase, given the scale of the construction project, the level of the exposed population, and the high background levels of pollutants in the area.
- Utilize EPA-registered particulate traps and other appropriate controls where suitable to reduce emissions of diesel particulate matter and other pollutants at the construction site.

**Administrative controls:**

- Identify all commitments to reduce construction emissions and update the air quality analysis to reflect additional air quality improvements that would result from adopting specific air quality measures.
- Identify where implementation of mitigation measures is rejected based on economic infeasibility.
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<td>Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking. (Suitability of control devices is based on: whether there is reduced normal availability of the construction equipment due to increased downtime and/or power output, whether there may be significant damage caused to the construction equipment engine, or whether there may be a significant risk to nearby workers or the public.)</td>
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<td>Utilize cleanest available fuel engines in construction equipment and identify opportunities for electrification. Use low sulfur fuel (diesel with 15 parts per million or less) in engines where alternative fuels such as biodiesel and natural gas are not possible.</td>
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<td>Develop a construction, traffic, and parking management plan that minimizes traffic interference and maintains traffic flow.</td>
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<td>Identify sensitive receptors in the project area, such as children, elderly, and infirm, and specify the means by which the Corps will minimize impacts to these populations. For example, locate construction equipment and staging zones away from sensitive receptors away from fresh air intakes to buildings and air conditioners.</td>
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<td>Reflect the SCAQMD's BACMs for fugitive dust mitigation listed in Tables 3-13.11 3-13.13 in the Mitigation Reporting Plan (i.e., should be enumerated as mitigation measures in the monitoring report on p. 264 and 265). Moreover, given the severity of the PM problem in the area and the size of the construction activity associated with the proposed project, commit to implement during all construction phases more than the minimum of one BACM in each category in order to reduce PM emissions to the minimum.</td>
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The Feasibility Study and follow-up documents should determine if the projects could be determined as regionally significant as defined at 40 CFR 93.101 and would, therefore, necessitate transportation conformity.
March 8, 2007

Dr. Carol Armstrong
City of Los Angeles, Bureau of Engineering
1149 South Broadway, Suite 600
Los Angeles, CA 90015

Los Angeles Revitalization Master Plan
SCH Number 2006041050
Draft Programmatic Environmental Impact Report
IGR/CEQA # 070207/EK
Vicinity LOS/51 LOS/101 LOS/134 et al.

Dear Dr. Armstrong:

We have received the Draft Programmatic Environmental Impact Report (PEIR) for the program referenced above right. The proposed program is to restore elements of natural habitat, water-quality and economic recreational open-space functions of the Los Angeles River channel within the area of Los Angeles City. For the California State Department of Transportation (Caltrans), we have the following comments related to the Draft.

We appreciate the attention given to construction management traffic planning. Noting the potential awkwardness of large trucks, particularly if any are over-size or -weight vehicles, we ask that such planning take account of any difficult circumstances at or near local street off-take from freeway off-ramps. Such circumstances might include limited available distances for turning or for vehicle queues between intersections, or limited number of lanes and signal times. Difficult circumstances might also further increase difficulties with any truck platooning (caravans of trucks) such as described in our April 2006 letter for the Notice of Preparation.

Because the current Draft is "programmatic level" rather than "project level", operational impacts on the often congested Caltrans freeways and their interchanges cannot be specifically evaluated at this time. The extent of operational impacts can vary in nature and in degree, and so we ask that notification and consultation with Caltrans begin as soon as possible, when specific projects are determined.

If you have any questions on our comments, refer to our internal IGR/CEQA Record Number for this letter of 070207/EK; and please do not hesitate to contact our review coordinator Edwin Kemppainen at (213) 897-1346 or to contact me at (213) 897-3747.

Sincerely,

[Signature]

CHERYL J. POWELL
IGR/CEQA Program Manager
cc: Mr. Scott Morgan, State Clearinghouse

"Caltrans improves mobility across California"
March 19, 2007

Carol Armstrong
City of Los Angeles
1149 S. Broadway Street, Suite 600
Los Angeles, CA 90015

Subject: Los Angeles River Revitalization Master Plan Programmatic EIR/EIS
SC#: 2006041050

Dear Carol Armstrong:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on March 16, 2007, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. These comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have completed with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0513 if you have any questions regarding the environmental review process.

Sincerely,

[Signature]
Terry Roberts
Director, State Clearinghouse

Enclosures

cc: Resources Agency
### Comments

**Document Details Report**
**State Clearinghouse Data Base**

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**Type**
- EIR
- Draft EIR

**Description**
The Los Angeles River Revitalization Master Plan is a blueprint for implementing a variety of greening projects, including the development of parks and open space, pedestrian and bicycle trails, bridges, enhanced connector streets, channel modifications, revitalized riverfront communities in key opportunity areas and a River Improvement Overlay (RIO) district along the 32-mile stretch of the River within the City of Los Angeles. Implementing the LARRMP recommendations over the near-term planning period (0 to 20 years) and the long-term planning period (20 to 90 years) constitutes the proposed action evaluated in the PEIRPEIS. The general project area includes approximately one-half mile on each side of the 32-mile River corridor that begins near Owensmouth Avenue in Canoga and continues downstream to Washington Boulevard, near the northern boundary of the city of Vernon. The Plan intends to revitalize the general environment of the Los Angeles River by providing improved natural habitat, economic values, and water quality, as well as recreation and open space amenities. The Plan area includes several locations where the potential exists for restoring a more natural riverine environment along the River, while maintaining and improving levels of flood protection. Creation of treatment wetlands in and around the River, to treat storm flows and to restore missing linkages of fragmented habitat, would also be pursued through LARRMP projects. LARRMP purposes include the provision of improved public access in the River to the River and reinvestment in the urban system that results in economic growth.

**Lead Agency Contact**
- Name: Carol Armstrong
- Agency: City of Los Angeles
- Phone: (213) 485-5792
- Fax
- Address: 1149 S. Broadway Street, Suite 600
- City: Los Angeles

**Project Location**
- County: Los Angeles
- City: Los Angeles
- Region
- Cross Streets
- Parcel No.
- Township
- Range
- Section
- Base

**Proximity to:**
- Highways: 2, 134, 11, 5, 118
- Airports: Burbank
- Railways: UP RR, BNSF, Metrolink
- Waterways: LA River
- Schools: LAUSD
- Land Use: Various

**Project Issues**
- Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Cumulative Effects; Drainage/Absorption; Economic/Jobs; Fiscal Impacts; Flood Plain/Flooding; Geologic/Site/Sediment; Landuse; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife

**Note:** Blanks in data fields result from insufficient information provided by lead agency.
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| **Document Details Report**  
| **State Clearinghouse Data Base** |

**Reviewing Agencies**: Resources Agency; Regional Water Quality Control Board, Region 4; Department of Parks and Recreation; Native American Heritage Commission; Office of Historic Preservation; Department of Fish and Game, Region 5; Department of Water Resources; California Highway Patrol; Caltrans, District 7; Department of Toxic Substances Control; State Water Resources Control Board, Division of Water Quality; State Lands Commission; Other Agency(ies)

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<td>03/16/2007</td>
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Note: Blanks in data fields result from insufficient information provided by lead agency.
S-3-1: The actions recommended by the NAHC in their letter dated February 23, 2007, that are not currently addressed in Section 4.16.8 (Mitigation Actions and Best Management Practices) will be added in the Final PEIR/PEIS. Also, the letter from NAHC conveying these suggested actions will be included in the Appendix of the Final PEIR/PEIS.
CEQA Guidelines, Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the initial study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave items.

Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec. §15064.5 (d) of the CEQA Guidelines mandate procedures to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

Lead agencies should consider avoidance, as defined in § 15370 of the CEQA Guidelines, when significant cultural resources are discovered during the course of project planning.

Please feel free to contact me at (916) 653-0251 if you have any questions.

Sincerely,

[Signature]

Dave Singleton, Program Analyst

Cc: State Clearinghouse

Attachment: List of Native American Contacts
LARRMP Project Manager  
City of Los Angeles
Department of Public Works, Bureau of Engineering  
1149 S. Broadway, Suite 600  
Los Angeles, CA 90015

Dear Ms. Armstrong:

Re: SCHW 2006041050; Los Angeles River Revitalization Master Plan (PEIR/PEIS)

The California Public Utilities Commission (Commission) has jurisdiction over the safety of highway-rail crossings (crossings) in California. The California Public Utilities Code requires Commission approval for the construction or alteration of crossings and grants the Commission exclusive power on the design, alteration, and closure of crossings.

The Commission’s Rail Crossings Engineering Section (RCES) staff recently reviewed the Los Angeles River Revitalization Master Plan Programmatic Environmental Impact Report/Programmatic Environmental Impact Statement (PEIR/PEIS). After reviewing the PEIR/PEIS, RCES staff has concerns over the proposed increased access for pedestrians and vehicular traffic over the Southern California Regional Rail Authority’s (MetroLink) railroad tracks by constructing new railroad crossings for the parkways, pedestrians walk trails, bike paths, and promenades.

The Commission has adopted the Federal Railroad Administration policy on reducing the number of at-grade crossings, and accordingly does not approve the construction of new at-grade crossings unless the applicant can provide substantial evidence that a grade separation is not practicable.

Further, a portion of the project will parallel San Fernando Road and Metrolink’s Ventura and Antelope Valley Line. There are 64 train movements a day along this corridor with a maximum speed of 79 mph. RCES has concerns over increasing vehicular and pedestrian volume over the existing nearby at-grade crossings and the increased pedestrian circulation patterns/destinations with respect to the railroad right-of-way.

Mitigation measures to consider include, but are not limited to, grade separation of major thoroughfares, safety improvements to existing at-grade highway-rail crossings due to an increase in traffic volumes and appropriate fencing to limit the access of trespassers to railroad right-of-way.

Comments

S-4-1: Comment acknowledged. We concur with your concerns regarding pedestrian safety. At-grade crossings are not preferable in most cases. As specific LARRMP projects move toward implementation, consultation with the PUC will be initiated to ensure concurrence in each case.

S-4-2: Comment acknowledged. We concur. See response to Comment S-4-1.

S-4-3: Comment acknowledged. We concur. We have added these mitigation measures to Section 4.12.8 (Mitigation Actions) under the Transportation discussion.
<table>
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<th>Comments</th>
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<td>S-4-4: The City of Los Angeles should arrange a meeting with the Commission’s RCES and Metrolink to discuss relevant safety issues and, if necessary, file a GO88-B request for authority to modify an at-grade crossing. Working with Commission staff early in the conceptual design phase will help improve the safety to motorists and pedestrians.</td>
<td>S-4-4: Comment acknowledged. We concur.</td>
</tr>
<tr>
<td>S-4-5: RCES should be kept informed of project’s development and meetings should be arranged with the Commission’s Rail Crossings Engineering Section as the project progresses to discuss relevant safety issues and to conduct a diagnostic review at the proposed and impacted crossing locations. If you have any questions, please contact Varouj Jinbachian, Senior Utilities Engineer at 213-576-7081, <a href="mailto:vsj@cpuc.ca.gov">vsj@cpuc.ca.gov</a>, or me at 213-576-7076, <a href="mailto:ldi@cpuc.ca.gov">ldi@cpuc.ca.gov</a>.</td>
<td>S-4-5: Comment acknowledged. We concur.</td>
</tr>
</tbody>
</table>

Sincerely,

[Signature]

Laurence Michael
Utilities Engineer
Rail Crossings Engineering Section

C: Rob Harris, SCRA
March 26, 2007

Carol Armstrong, LARRM Project Manager
City of Los Angeles
Department of Public Works, Bureau of Engineering
1149 S. Broadway, Suite 600
Los Angeles, CA 90015

COMMENTS ON THE DRAFT LOS ANGELES RIVER REVITALIZATION MASTER PLAN AND DRAFT PEIR/PEIS

Dear Ms. Armstrong:

Thank you for the opportunity to comment on the draft Los Angeles River Revitalization Master Plan (LARRMP) and draft PEIR/PEIS documents. The potential projects within the River Corridor discussed in these documents focus on the revitalization of the Los Angeles River within the Los Angeles River Watershed. This area lies within the jurisdiction of the Los Angeles Regional Water Quality Control Board (Regional Board). The Regional Board is charged with protecting and improving the surface and groundwater quality in the Los Angeles River watershed.

Regional Board staff supports the overall vision and concept of the LARRMP with the goal of providing water quality and environmental improvements to the Los Angeles River. However, because the LARRMP and draft PEIR/PEIS will serve as the general framework for future environmental documents (it is expected that other environmental documents will be tiered from this PEIR) for both the short and long term projects, it is necessary that this document provide a strong foundation for the protection of water quality in both the construction and operation phases of potential projects. Please address the following comments on the water quality related sections of the draft LARRMP and draft PEIR/PEIS.

Draft LARRMP Comments

- In Chapter 4, a number of viable approaches to enhance water quality (multi-benefit landscape treatment, treatment berms, and landscape-based treatment at major confluences, to name a few) are recommended within the river corridor; however, reduction of pollutants at their sources throughout the watershed still needs to be addressed. Since much of watershed is outside of the plan area, the effectiveness of the proposed water quality enhancement measures will be dependent upon pollution prevention so that treatment systems and BMPs are not overwhelmed by high concentrations and loads of pollutants. The suggested treatment approaches would be most effective in concert with watershed-wide

California Environmental Protection Agency
pollution reduction activities proposed in various watershed plans. This would be
an ideal time to emphasize the need for coordination and integration across plan
boundaries to truly attain the goals of the plan. It is suggested that the document
include a commitment statement to work in cooperation with other watershed-wide
plans to successfully improve and protect water quality and restore aquatic
resources through the Los Angeles River Watershed.

- Please explain why is the boundary of the proposed River Improvement Overlay
(RIO) District 600 feet on either side, while the plan boundary covers one half mile
on either side. This would be an opportunity to attenuate pollutant loadings before
water reaches riverside treatment systems. A boundary of the RIO District
consistent with the plan boundary would maximize this opportunity.

- The plan's flood control goals should be integrated with its water quality goals. For
example, diverting flows to underground culverts will not address water quality
issues associated with storm water and may in fact exacerbate water quality
problems in the ultimate receiving water. The suggestion in Chapter 4 to ultimately
use water stored outside the channel for irrigation or infiltration should be
emphasized as an opportunity to address storm water quality concerns.

Draft PEIR/PEIS Comments

- A number of viable approaches to enhance water quality (multi-benefit landscape
treatment, treatment terraces, and landscape-based treatment at major
confluences, to name a few) are recommended within the river corridor; however,
reduction of pollutants at their sources throughout the watershed still needs to be
addressed. Since much of the watershed is outside of the plan area, the effectiveness
of the proposed water quality enhancement measures will be dependent upon
pollution prevention so that treatment systems and BMPs are not overwhelmed by
high concentrations and excessive loads of pollutants. Furthermore, with
confluence treatment, the tributaries themselves would remain impaired. The
suggested treatment approaches would be most effective in concert with
watershed-wide pollution reduction activities proposed in various watershed plans.
This would be an ideal time to emphasize the need for coordination and integration
across plan boundaries to truly attain the goals of the plan. It is suggested that the
document include a commitment statement to work in cooperation with other
watershed-wide plans to successfully improve and protect water quality and
restore aquatic resources through out the Los Angeles River Watershed.
S-5-2: Comment acknowledged. We concur. Language based on your comment will be added in the Final PEIR/PEIS to Section 4.5.8 (Mitigation Actions and Best Management Practices).

S-5-3: Comment acknowledged. We concur. Additional mitigation measures based on your comment will be added in the Final PEIR/PEIS to Section 4.5.8 (Mitigation Actions and Best Management Practices) in the Water Quality discussion.

S-5-4: Comment acknowledged. We concur. Language based on your comment will be added in the Final PEIR/PEIS to Section 4.5.2.3 (Potential Impact Levels).
S-5-6: Comment acknowledged. We concur. Language based on your comment will be added in the Final PEIR/PEIS to Section 4.5.2.3 (Potential Impact Levels).

In addition to potential adverse impacts on biological resources during construction of the velocity-reducing channel modification measures, the LARRMP PEIR/PEIS document should identify any potential long-term impacts to water quality and habitat caused by transitioning storm flows into and out of culverts from the channel.

If you have any questions, please contact Regional Board staff Rebeca Velga Nascimento at 213-976-0601 or rvelga@waterboards.ca.gov.

Sincerely,

Samuel Unger, PE
Section Chief, Regional Programs
LOCAL AGENCY COMMENTS
March 19, 2007
Dr. Ara Kaspian
City of Los Angeles
Public Works Department
Bureau of Engineering
Environmental Management Division
1149 South Broadway, Suite 600
Los Angeles, CA 90015

Re: Draft Programmatic Environmental Impact Report / Programmatic Environmental Impact Statement, Los Angeles River Revitalization Master Plan

Thank you for providing the City of Burbank with the opportunity to comment on the recently completed Draft Environmental Impact Report / Environmental Impact Statement for the Los Angeles River Revitalization Master Plan. The City of Burbank agrees that there is a tremendous opportunity to improve the Los Angeles river environment to enhance recreational opportunities, habitat restoration, and improve water quality along the corridor while also preserving its flood abatement purpose. As we outlined in our response to the Notice of Preparation / Notice of Intent in April 2006, the City has some concerns related to river capacity, safety, health, property, and access that we feel will need to be addressed as specific project-level environmental review is conducted.

One of the City’s main concerns regarding activity to alter the river channel is the possibility for river channel modifications to lower the flood-carrying capacity of the LA River, which would increase the risk of flooding during winter storm events to much of southern Burbank. The City recognizes that many of the methods proposed to introduce vegetation, widen the channel or otherwise introduce natural flow into the river system can be shown to actually maintain or improve flood carrying capacity. The City requests that any project-specific studies of river modifications include hydrology and other analyses to ensure that the overall carrying capacity of the channel is maintained or enhanced.

The City is supportive of Master Plan elements to improve access to the river environment by walkers, joggers, cyclists, and equestrians, and to enhance the connections in Burbank to Griffith Park, so that the river acts as a natural progression between urban areas and nearby recreation facilities. The City requests that any connections to or across the river consider the City’s Bicycle Master Plan as well as traditional equestrian access points to Griffith Park, so that these connections are maintained or enhanced. Care should be given to consider the sensitive nature of equestrian activity so that this critical link between the horsekeeping neighborhoods in Burbank and the Griffith Park trails is maintained.

L-1-1: Comment acknowledged.
L-1-2: Comment acknowledged. The Revitalization Master Plan is not intended to increase flood risk. All changes to the channel and the flow conditions would be coordinated and modeled through collaboration with the Corps of Engineers, LA County Department of Public Works, and neighboring jurisdictions.
L-1-3: Comment acknowledged.
Comments

While the Master Plan does not include areas adjacent to Burbank in the study of Opportunity Areas performed in the EIR/EIS, we request that any study of the riverfront property in the “Poliwog” area of the Griffith Park Family Trust adjacent to Walt Disney Studios at the terminus of Keystome Street near Riverside Drive maintain the historical equestrian uses that occur in that area. Also, any plans to redevlop the river frontage along Riverside Drive adjacent to Johnny Carson Park should integrate with the park facilities located in that area. Finally, there are a number of large private properties located adjacent to the river in Burbank (Walt Disney and Warner Brothers Studios). Any improvement plans for the river in this area should recognize and protect these existing studio uses near the river channel.

Finally, as we outlined in our response to the Notice of Preparation last year, we are concerned with the overall increased exposure of the river areas to additional people, and how those decisions may affect the safety of the river. Any plans to open the river to recreational or other activities should include a review of the safety aspects of increasing the exposure of people to floodwater conditions. Many of the strategies included in the Master Plan are expected to calm the flow of water during non-peak times. Nonetheless, plans to open the channel to recreation need to consider the safety implications of these policy decisions. Also, the introduction of pooling water could increase the risk of water born insects, so any plan to calm the river channel should consider strategies to reduce this risk, preferably through creation of natural riparian habitat that minimizes pooling of stagnant water.

Again, thank you for the opportunity to comment on this ambitious Los Angeles River Revitalization Master Plan. The City of Burbank looks forward to working with the other project stakeholders to improve this valuable regional resource as an enhanced recreation and natural habitat area. If you have any questions, please feel free to contact me at 818.238.5270 or via email at dfkriske@ci.burbank.ca.us

Sincerely,

David Kriske
Senior Planner, Community Development Department

c. Eric Hansen, Park, Recreation, and Community Services Director
   Greg Herrmann, Chief Assistant Community Development Director
   Barbara Lazar, Senior Planner
Letter L-2

Comments

L-2-1: Comment acknowledged. Your comment has been passed on to the LARRMP planning team. Similar riverfront improvements have taken place along the entire Los Angeles River. Some adjacent cities are or have implemented revitalization plans, for example the City of Glendale’s Riverwalk and the City of Long Beach’s RiverLink projects. The proposed Joint Powers Authority (JPA) would include the County of Los Angeles and could be expanded to include additional jurisdictions in the future. See page 9-9 of the LARRMP.

Responses
March 26, 2007

Carol Armstrong, LARRMP Project Manager
City of Los Angeles
Department of Public Works, Bureau of Engineering
1149 S. Broadway, Suite 600
Los Angeles, CA 90015

Re: Comments on Draft EIR/EIS and Master Plan
Prepared for Los Angeles River Revitalization Master Plan

Dear Ms. Armstrong:

The City of Glendale Planning Department appreciates this opportunity to comment on the above referenced project, relative to impacts within the City of Glendale. We have reviewed the Los Angeles River Revitalization Master Plan (LARRMP) and corresponding environmental impacts report/environmental impact statement (EIR/EIS) and would like to provide the following comments.

1. Appropriate traffic impact analyses should be conducted at the project level to identify potentially significant and adverse impacts to any transportation infrastructure/facilities in the City of Glendale. Master Plan projects requiring such analyses should include changes to land use as well as changes to transportation infrastructure/facilities. Both short-range and long-range impacts should be addressed utilizing significance thresholds provided by the City of Glendale.

2. All Master Plan alternatives should include the transportation infrastructure/facilities comprising the approved “State Route 134/San Fernando Road Interchange Project (Including Fairmont Avenue Flyover),” City of Glendale Traffic & Transportation Division, illustrated in Exhibit A attached. This is an approved project scheduled for completion in 2009-2010.

3. As an alternative to closing the at-grade railroad crossing at Doran Street (located east of the Los Angeles River, south of State Route 134, and west of San Fernando Road) and constructing a new at-grade rail crossing at California Avenue (located approximately 1,250 feet south of Doran Street), staff respectfully requests that said closure of the Doran Street at-grade rail crossing be studied in combination with the reconstruction of Doran Street over San Fernando Road in a manner similar to the aforementioned Fairmont Avenue Flyover.

L-3-1: Comment acknowledged. We concur.

L-3-2: We concur. This has been discussed with the LARRMP planning team.

L-3-3: We concur. This has been discussed with the LARRMP planning team.
Comments

Studies conducted by the Traffic & Transportation Division indicate the Doran Street Flyover would provide vehicular access to properties located east of the Los Angeles River, south of State Route 134, and west of San Fernando Road. In addition, the Doran Street Flyover would pass beneath State Route 134 to intersect the Fairmont Avenue Flyover, thereby enhancing local access to the State Route 134/San Fernando Road interchange. Exhibit B attached illustrates this Doran Street Flyover.

As projects are proposed under the LARRMP, we would appreciate the opportunity to review and comment on each one at that time. If you have any questions please, contact me at (818) 548-2140. Thank you for this opportunity to provide comment.

Sincerely,

[Signature]

Erik Krause
Senior Planner

EK:ek

Cc: Hassan Haghani, Acting Director of Planning
Philip Lanzafinance, Director of Development Services
Jano Baghdanian, Traffic and Transportation Administrator

Responses
March 26, 2007

Dr. Carol Armstrong
City of Los Angeles
1149 S. Broadway Street, Suite 600
Los Angeles, CA 90015

Dear Dr. Armstrong:

NOTICE OF AVAILABILITY OF A
DRAFT PROGRAMMATIC ENVIRONMENTAL IMPACT REPORT/
PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT (PEIR/PEIS) FOR THE
LOS ANGELES RIVER REVITALIZATION MASTER PLAN (LARRMP)

The Department is in support of the City’s extensive efforts to revitalize the Los Angeles River. There is an ever increasing demand for parks, open space, and recreational facilities in the Los Angeles basin and the County, as well as the City, is committed to provide for the public in this arena.

One of the highly prized recreation facilities in the County is its Trail System. The County’s proposed “Los Angeles River Trail Extension” (#2), as shown on the enclosed trails brochure, is a multi-use equestrian and hiking trail which overlaps the “Los Angeles River Corridor” and “Opportunity Areas” as depicted in Figure 1-1, “River Corridor” of the PEIR/PEIS. The enclosed copy of Figure 1-1 highlights the overlapping project areas. We estimate the overlapping area to be 6 – 10 miles along the river. The Department welcomes the opportunity to partner with the City on the development of this shared area into another multi-use equestrian and hiking trail to be enjoyed by countless others.

Thank you for including this Department in the review of this document. If we may be of further assistance on this project, please contact Mr. Bryan Moscardini at 213-351-3513 or bmoscardini@parks.lacity.gov.

Sincerely,

Larry R. Hensley, Chief
Planning Division

Enclosures

c: Norma Garcia, Park Deputy, First Supervisorial District
Comments

L-5-1: Comment acknowledged. This comment was discussed with the LARRMP team and the City of Los Angeles BOE. The PEIR/PEIS addresses potential environmental effects associated with construction and operation/maintenance of the array of future LARRMP implementation projects that could be undertaken within the River Corridor. Because obtaining funds necessary for ongoing operation and maintenance activities associated with the implementation of the LARRMP is not expected to have environmental impacts, this topic is not addressed in this PEIR/PEIS.

Additionally, the LARRMP’s planned Joint Powers Authority is intended to streamline these functions, resulting in greater cost efficiencies. These cost performance measures would be subsequently tracked as a function of the JPA, should it be established. However, because establishment of the JPA is an administrative action, such costs were not addressed in the PEIR/PEIS.

L-5-2: Comment acknowledged. This comment was discussed with the LARRMP team and the City of Los Angeles BOE. See response directly above. Cooperative agreements are also planned future administrative actions and thus were not addressed in the PEIR/PEIS.

L-5-3: Comment acknowledged. This comment was discussed with the LARRMP team and the City of Los Angeles BOE.

L-5-4: Comment acknowledged. The PEIR/PEIS recognizes that the engineering approach discussed in the LARRMP intends to incorporate thorough study of the hydrologic and hydraulic effects of alternative designs as specific channel modification projects become identified. The PEIR/PEIS points out in Section 4.5.1.2 (Approach and Methodology - of the Hydrology, Floodplain, and Water Quality discussion), the need for modeling the potential hydrological effects of future projects. Language will be added to this section to include potential hydraulic effects as well.

L-5-5: Comment acknowledged. In the Final PEIR/PEIS, language based on your comment will be added to the recommended
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<th>Comments</th>
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<tr>
<td>L-5-5 (cont.): mitigation measures in Section 4.5.8 (Mitigation Measures and Best Management Practices – of the Hydrology, Floodplain, and Water Quality discussion).</td>
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<td>L-5-6: Comment acknowledged. It is anticipated that as future projects are identified that might involve the channel configurations you refer to, that due consideration will be given to ensuring that such designs do not hamper swift water rescues in any way. In the Final PEIR/PEIS, language in this regard will be added to Section 4.11.2.1 (General Types of Impacts and Mitigation) to help ensure these design criteria are included.</td>
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</table>
L-5-7: Comment acknowledged.

L-5-8: The LARRMP planning team indicates that it was discussed during two meetings with the City, the Corps, the County DPW, and the consultants, that the hydraulic data used to develop the preliminary concepts in the Plan was based on the hydrology in the LACDA study (COE, 1991) as well as the updated HEC-RAS data that was developed by the Corps in 2004/2005. The applicability of both County and Corps data will be further discussed in the subsequent Army Corps Los Angeles River Ecosystem Restoration Feasibility Study, which will test the recommendations of the LARRMP.

L-5-9: Hydraulic modeling will take place once project specific efforts are underway for implementing the LARRMP. The hydrology and hydraulic data would all be compatible with established County and Corps data. We concur that the revitalization effort does not currently extend into the River reach constructed downstream as part of the LACDA project in the 1990’s. See response directly above regarding the subsequent Army Corps of Engineers Feasibility Study.

L-5-10: Comment acknowledged.

L-5-11: Comment acknowledged.

L-5-12: Comment acknowledged. The City welcomes the opportunity to further discuss any aspect of the LARRMP with the County.

L-5-13: Comment acknowledged. We concur. The impacts referred to would need to be analyzed through more detailed hydraulic modeling and further environmental studies that would accompany the implementation of future LARRMP projects.
L-5-14: Comment Acknowledged. The potential impacts from ponded water will be added to the discussion of potential impacts to biological resources in Section 4.7.2.1 (River Channel Modification Measures). Also, the future evaluation of these potential impacts at the project level will be added to the recommended mitigation actions in Section 4.7.8 (Potential Mitigation Actions and Best Management Practices).

L-5-15: Comment acknowledged. This is the approach to be taken by the City in moving forward towards realizing the vision of the LARRMP.

L-5-16: Comment acknowledged. All proposals will be reviewed for consistency with existing applicable guidelines and standards. Suitable language will be added to Section 4.9.2.4 (Mitigation Actions) in the Recreation section.

L-5-17: Comment acknowledged. All proposals will be reviewed for consistency with existing applicable guidelines and standards. Suitable language will be added to Section 4.9.2.4 (Mitigation Actions) in the Recreation section.

L-5-18: Comment acknowledged. All proposals will be reviewed for consistency with existing applicable guidelines and standards. Suitable language will be added to Section 4.9.2.4 (Mitigation Actions) in the Recreation section.

L-5-19: Comment acknowledged. All proposals will be reviewed for consistency with existing applicable guidelines and standards. Suitable language will be added to Section 4.9.2.4 (Mitigation Actions) in the Recreation section.

L-5-20: Comment acknowledged. Examples of these types of warning measures are discussed in Section 4.11.2.2 (Potential Impact Levels). A better placement for this discussion might be the preceding Section 4.11.2.1 (General types of Impacts and Mitigation), under the discussion of Los Angeles River Water Safety.
Comments

If you have any questions, please call me at (626) 458-7150.

Suk

CC:  "Contreras, Danielle" <DCONTRERAS@dpw.lacounty.gov>
Ms. Carol Armstrong, Project Manager  
Los Angeles River Revitalization Master Plan  
City of Los Angeles Department of Public Works, Bureau of Engineering  
1149 South Broadway, Suite 600  
Los Angeles, CA 90015

Dear Ms. Armstrong:

DRAFT LOS ANGELES RIVER REVITALIZATION MASTER PLAN AND DRAFT PROGRAMMATIC ENVIRONMENTAL IMPACT REPORT / PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT  
CITY OF LOS ANGELES

Thank you for the opportunity to review the draft Los Angeles River Revitalization Master Plan (LARRMP) and its related draft Programmatic Environmental Impact Report/Programmatic Environmental Impact Statement (DPEIR/PEIS). The general study area of the LARRMP includes one-half mile on each side of the 32-mile stretch of the Los Angeles River within the City of Los Angeles (City) from Owensmouth Avenue to Washington Boulevard. The study area also includes five opportunity areas (Canoga Park, River Glen, Taylor Yard, Cornfields-Chinatown, and downtown industrial). River channel modifications proposed include open space development, parks, green streets, paseos, trails, parkways, and other river revitalization opportunities.

The LARRMP is consistent with the mission and vision of the Los Angeles River Master Plan, an environmental planning document that focuses on implementing a multi-faceted vision of the Los Angeles River that includes environmental, aesthetic, and recreational enhancements and economic development in addition to the primary objective of flood protection. However, there are a number of issues that we would like the City to address in greater detail as the City moves forward with their planning efforts. We offer the following comments for your consideration.

The design data used to develop the preliminary concepts presented in the plan, including, but not limited to, terraced channels and bypass culverts, are based on the original design data for the Upper Los Angeles River. The original data is based on the hydraulic pertinent data tables from the United States Army Corps of Engineers'
Comments

Ms. Carol Armstrong  
March 27, 2007  
Page 2

Hydrology & Hydraulics Section Permit Manual. Proposals carried forward from this plan may need to consider the feasibility of increasing channel capacity to that of the Los Angeles County Drainage Area (LACDA) study in an effort to maintain or enhance hydraulic capacity.

The proposals suggested in the plan, if implemented, may significantly impact the current maintenance routines that have been established for the river corridor within the City. For example, proposals that are focused on water quality improvements, off-corridor attenuation measures, and increased vegetation within the channel area (including terraced slopes) will increase maintenance costs. Further, creating and/or restoring natural habitat within the channel area may limit the affected maintenance entity's ability to maintain the channel in the most cost-effective manner and may subject the affected maintenance entity to additional mitigation requirements. Regulatory requirements may restrict the affected maintenance entity's ability to adequately maintain vegetation added to the channel and these restrictions may result in the capacity of the channel being compromised. Lastly, proposals to construct access roads at or below the design flood level are not recommended because these proposals may severely hamper the affected maintenance entity's ability to perform various maintenance activities, especially during emergencies and high-channel flows. All access roads, maintenance roads, and invert access roads should be constructed in accordance with accepted design standards with consideration also given to emergency crews that need to access the channel to perform swift water rescue functions.

The plan should propose mechanisms, such as Cooperative Agreements, for addressing incremental increases to the cost of maintaining the channel if the proposed changes are made to the corridor area. The suggested Cooperative Agreements should also address the potential increases in liability that may result from encouraging public access to the channel invert areas and the right of way associated with the proposed daylighted storm drains. Further, the plan may want to consider how to implement warning systems within the river corridor area to help users differentiate between times when the river is or is not safe for public access.

In addition to the impacts to the river corridor within the City, proposals suggested in the plan, if implemented, may significantly impact the 19 miles of the Los Angeles River not located within the City. Impacts include, but are not limited to, potential damage to downstream ecosystems and restoration efforts, potential increases in maintenance costs, and potential changes to the downstream water surface elevation. To fully understand the impacts the proposals suggested in the plan will have on the river system, the entire 51-mile system, including the proposed changes, will need to be modeled extensively from both a hydraulic and hydrologic standpoint.

Responses

L-6-1: Comment acknowledged. The impacts related to the maintenance routine are the subject of the proposed Joint Powers Authority (JPA).

L-6-2: We concur. This is an issue to be addressed by the JPA.

L-6-3: All LARRMP-related specific projects will be implemented with subsequent environmental review that would analyze impacts downstream. Specific measures will be taken at that time to prevent, minimize or avoid adverse downstream impacts.
Ms. Carol Armstrong  
March 27, 2007  
Page 3

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Public Comments and Responses

Comments

L-6-4: All LARRMP-related specific projects will be implemented with subsequent environmental review that would analyze impacts downstream. Specific measures will be taken at that time to prevent, minimize or avoid adverse downstream impacts.

L-6-5: We concur. This is an issue to be addressed by the JPA.

L-6-6: Comment acknowledged. We concur.

L-6-7: Comment acknowledged. We concur.

Responses

The proposals suggested in the LARRMP may significantly impact downstream ecosystems and restoration efforts. Areas such as Dominguez Gap and Golden Shore Marine Reserve in the City of Long Beach and the future South Gate Riparian Habitat Restoration project rely on water supplied by the river and may be impacted if flow and velocity are changed. Further, proposals to pond water within the river at various locations throughout the City through the use of rubber dams should be evaluated to determine their impacts to ecosystems that may develop upstream, downstream, and within the ponded areas, especially, when the water held by the dams is released.

Proposals suggested within the plan, if implemented, have the potential to change the water surface elevation in the lower reaches of the river. As a requirement associated with LACDA project, no efforts associated with river improvement can result in an increase to the water surface elevation in the downstream reaches of the river. To manage this requirement, the LACDA Stormwater Management Plan is being developed by the United States Army Corps of Engineers and the Los Angeles County Flood Control District. Prior to implementation, all proposals to change the hydraulic and hydrologic function of the river must be reviewed to ensure that the proposals are consistent with LACDA Stormwater Management Plan and do not conflict with efforts to maintain the current water surface elevation in the lower reaches of the river. Also, the City will need to consider how the water surface elevation in the lower reaches may be impacted by surface runoff that enters the river after the water leaves properties located within the proposed River Improvement Overlay (RIO).

As proposals within the plan move forward for implementation, the proposals should be refined through a stakeholder driven process to ensure that the needs of current and future river users are addressed and satisfied. Additionally, proposals that move forward should build upon the existing body of work that has been done along the river corridor and should, at a minimum, adhere to the following:

- All proposals should be consistent with the Los Angeles River Master Plan.
- Landscaping within the river corridor should be consistent with the Los Angeles River Master Plan Landscaping Guidelines and Plant Palettes.
L-6-7

Signage within the river corridor should be consistent with the Los Angeles River Master Plan Sign Guidelines.

Bikeway proposals should be consistent with guidelines specified for the development of Class I Bikeways.

All proposals that involve making the corridor more accessible to the public should comply with guidelines developed through the American Disabilities Act.

We are committed to enhancing the quality of life of residents, visitors, and those who conduct business in the County of Los Angeles. Therefore, we welcome the opportunity to discuss our comments further and ask that we continue to be involved in efforts to move the LARRMP's proposals forward. We also recommend that the City expand efforts to gather feedback from the County of Los Angeles by submitting the LARRMP and its related DPEIR/PEIS to the County of Los Angeles Chief Administrative Office for circulation among all impacted County of Los Angeles departments. To accommodate this recommendation, it may be advisable to extend the comment period to give all affected departments the opportunity to make recommendations before the plan and its related environmental documents move forward. If you have any questions, please contact Mr. Vik Bapna at (626) 458-4363 or vbapna@dpw.lacounty.gov.

Very truly yours,

DONALD L. WOLFE
Director of Public Works

MARK PESTRELLA
Assistant Deputy Director
Watershed Management Division

HS:sw
P:\wmp\ULAR\Watershed\Wetshef\LARRMP EIR\LARRMP EIR\EIS Comments 032807.docCD2707

bc: Flood Maintenance Division (Lee, Vander Vis, Hildebrand)
Land Development Division (Hunter, Chong)
Water Resources Division (Kubomoto)
March 27, 2007

City of Los Angeles
Department of Public Works, Bureau of Engineering
1149 South Broadway, Suite 600
Los Angeles, CA 90015
carol.imseng@lacity.org

SUBJECT: Los Angeles River Revitalization Master Plan
Draft Programmatic EIR/Programmatic EIS
State Clearinghouse No. 2006041050

Thank you for giving the Los Angeles Unified School District (LAUSD) the opportunity to comment on the above-referenced document. The general area of study extends one-half mile on each side of a 32-mile stretch of the Los Angeles River within the City of Los Angeles beginning at Owensmouth Avenue in Canoga Park (at the confluence of Ball Creek and Arroyo Calabasas) and continuing downstream to Washington Boulevard, near the northern boundary of the City of Vernon. The study area is referred to as the River Corridor.

As you are aware, there are 73 existing LAUSD schools located within 0.5 mile of the Los Angeles River Corridor. Our primary goal is to: 1) ensure the health and safety of students, teachers, and staff, and 2) minimize any disruption to the learning environment. As such, our office looks forward to reviewing each phase of the Los Angeles River revitalization on a project-by-project basis and requests that the LADWP forward all project-related documents to our office when they become available for public review.

In addition, we are providing information on planned schools that you may not be aware of, so that you may include it in your analysis for individual projects. The following proposed new school sites are within a 0.5 mile of the River Corridor:

- South Region High School No. 4 (SRHS #4)
- Central Region High School No. 13 (CRHS #13)
- South Region High School No. 8 (SRHS #8)
- South Region High School No. 9 (SRHS #9)

Construction is scheduled to start in the second quarter of 2008 for SRHS #4 and CRHS #13. These schools are scheduled for occupancy in the third quarter of 2011. Construction of SRHS #8 is scheduled for the second quarter of 2009, with school occupancy scheduled for the third quarter of 2012.

Letter L-7-1: Comment acknowledged.
Letter L-7-2: Comment acknowledged.
Comments

LARRMP Project

March 27, 2007

Construction of SRHS #9 is scheduled for the second quarter of 2010, with school occupancy scheduled for the third quarter of 2012.

Maps and information related to these schools can be retrieved at http://laschools.org. If you need any additional information, please do not hesitate contacting our office.

Respectfully,

Glenn Striegler – PG
Environmental Assessment Coordinator

Pat Schamen – Deputy Director LAUSD OEHS
Alexander Morelan – Site Assessment Manager LAUSD OEHS
Bill Piazza – Environmental Assessment Coordinator LAUSD OEHS
Randi Cooper – Senior Project Manager for CEQA New Schools Construction Program

Environmental Review File
LA River Revitalization Master Plan Project
March 19, 2007

Dr. Carol Armstrong, LARRMP Project Manager
City of Los Angeles
Public Works Department, Bureau of Engineering
1149 S Broadway, Suite 600
Los Angeles, CA 90015

Dear Dr. Armstrong:

The Los Angeles County Metropolitan Transportation Authority (Metro) has received and reviewed the Draft PEIR/PEIS for the Los Angeles River Revitalization Master Plan. While Metro congratulates your efforts, there are several areas of our agency’s concern that must be addressed.

With regard to the Canoga Park Opportunity Area:

1. The Canoga Park Opportunity Area encroaches on and directly affects Metro-owned right-of-way along Canoga Avenue, which has been designated as the route for the Canoga Extension of the Metro Orange Line (FEIR scheduled to be released in September 2008). The following components will have a direct impact:
   • Channel Modifications, Parks, Green Streets (both arterial and local), Paseos and Promenades, Bikeways and Trails, Pedestrian River Crossings and Bridge Underpasses, and Gateways.

2. The Canoga Extension of the Metro Orange Line as well as other potential Bus Rapid Transit Projects located in the San Fernando Valley are described in Metro’s Board adopted Long Range Transportation Plan and Short Range Transportation Plan. These documents were not reviewed as part of the development of the Draft PEIR/PEIS, nor was Metro consulted regarding the direct impacts the River Revitalization Plan might have in this area.

3. The existing Metro Orange Line may be affected by Regional Gateways, Paseos, and Green Streets (both arterial and local):
   • For safety reasons, bus right-of-way and facilities must be kept secure from public trespassing.

4. Metro acknowledges the need for additional pedestrian and bike enhancements in the area, and has plans to extend the Class I bikeway and pedestrian path from the existing Metro Orange Line, along Metro owned right-of-way to the Chatsworth Metrolink Station, in conjunction with the construction of the Canoga Extension.

With regard to the Taylor Yards-Cornfields/Chinatown and Downtown Industrial Opportunity Areas:

5. The PEIR/PEIS should consider proximity of Bridge Underpasses, Neighborhood Gateways, and Regional Gateways to the Metro Gold Line as it crosses the LA River:
   • The safety of bridges over the Los Angeles River used by bus and rail lines must be maintained and protected from flooding.

L-8-1: The LARRMP would be implemented by the Los Angeles River Special Project Office within the Bureau of Engineering, Department of Public Works. This River Special Office will review the proposed Canoga Extension of the Metro Orange Line PEIR when it is published and will work with Metro to eliminate potential conflicts between those two projects.

L-8-2: The NOP for the PEIR/PEIS was published in the Los Angeles Times on April 6, 2006. Additionally, the project team has held meetings and presentations with the Metropolitan Transportation Authority, and is committed to strengthening these contacts. Additional comment noted. A meeting was held between Metro staff, Walt Davis, and LARRMP staff, Carol Armstrong, on April 11 regarding this project. Coordination will continue.

L-8-3: Comment acknowledged. See previous response.

L-8-4: Comment acknowledged.

L-8-5: Comment acknowledged.
<table>
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<tr>
<th>Comments</th>
<th>Responses</th>
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<tr>
<td>6. Metro's rail yards and shops for the Metro Gold Line at 1800 Baker Street and the Metro Red Line at 320 S. Santa Fe Avenue are located adjacent to the Los Angeles River. Rail right-of-way and facilities must be kept secure from trespass by the public for safety.</td>
<td>L-8-6: Comment acknowledged.</td>
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<td>L-8-7: Comment acknowledged.</td>
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<tr>
<td>L-8-8: Comment acknowledged. We concur.</td>
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<tr>
<td>L-8-9: Comment acknowledged. The LARRMP itself does not change any land use designations. Subsequent community planning activities may affect land use designations, but these would be implemented according to prevailing public involvement procedures, including consultation with Metro.</td>
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<tr>
<td>L-8-10: Comment acknowledged.</td>
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<td>In addition, the following recommendations were conveyed during the NOP process but were not specifically addressed in the Draft PEIR/PEIS. Those recommendations were as follows:</td>
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<td>7. Bike paths should be included in the Plan, however, these may not cross bus or rail facilities at-grade.</td>
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<td>8. Changes to the Los Angeles River must not compromise the integrity of the Metro Red Line subway tunnel along Lankershim Boulevard in North Hollywood through changes in groundwater levels.</td>
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<tr>
<td>9. New land use designations created by the River Revitalization Plan may pose restrictions and/or limitations on Metro's development of its properties adjacent or in close proximity to the river.</td>
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<tr>
<td>10. Speed and frequency of bus and rail service could be impacted by project development.</td>
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Metro looks forward to reviewing the Final Programmatic EIR. If you have any questions regarding this response, contact me at 213-922-6908 or by email at chapmans@metro.net. Please send the Final EIR to the following address:

Metro CEQA Review Coordination
One Gateway Plaza MS 99-23-2
Los Angeles, CA 90012-2952
Attn: Susan Chapman

Sincerely,

Susan F. Chapman
Program Manager, Long Range Planning

Cc: Walt Davis, Laurel Kopanski
22 March 2007

Ms. Carol Armstrong, LARRMP Project Manager
City of Los Angeles
Department of Public Works, Bureau of Engineering
1149 S. Broadway, Suite 600
Los Angeles, CA 90015

RE: SCAG Comments on the Draft Joint Programmatic EIR/EIS (PEIR/PEIS) for the Los Angeles River Revitalization Master Plan (LARRMP) project
SCAG No. 120070049

Dear Ms. Armstrong,

Thank you for submitting the Draft Joint Programmatic EIR/EIS (PEIR/PEIS) for the Los Angeles River Revitalization Master Plan (LARRMP) project to the Southern California Association of Governments (SCAG) for review and comment. As the clearinghouse for regionally significant projects per Executive Order 12372, SCAG reviews the consistency of local plans, projects, and programs with regional plans. This activity is based on SCAG’s responsibilities as a regional planning organization pursuant to state and federal laws and regulations. Guidance provided by these reviews is intended to assist local agencies and project sponsors to take actions that contribute to the attainment of regional goals and policies.

SCAG staff reviewed the aforementioned PEIR/PEIS, and has determined that the proposed project is regionally significant per the California Environmental Quality Act (CEQA) Guidelines (Section 15126). The proposed project considers more than 500 dwelling units.

CEQA requires that EIRs discuss any inconsistencies between the proposed project and applicable general plans and regional plans (Section 15125 [d]). If there are inconsistencies, an explanation and rationalization for such inconsistencies should be provided.

Policies of SCAG’s Regional Comprehensive Plan and Guide, Regional Transportation Plan, and Compass Growth Vision that may be applicable to your project are outlined in the attachment. We expect the Final PEIR/PEIS to specifically cite the appropriate SCAG policies and address the manner in which the project is consistent with applicable core policies or supportive of applicable ancillary policies. Please use our policy numerers to refer to them in your Final PEIR/PEIS. Also, we would encourage you to use a side-by-side comparison of SCAG policies with a discussion of the consistency or support of the policy with the proposed project.

SCAG’s Compass Growth Vision, adopted in 2004, encourages better relationships between housing, transportation, and employment. For a clearer understanding of the intent of and possibilities with Compass, please consult our website, www.socalcompass.org in addition to the guidance offered in this letter.

Please provide a minimum of 45 days for SCAG to review the Final PEIR/PEIS when this document is available. If you have any questions regarding the attached comments, please contact me at (213) 230-1019. Thank you.

Sincerely,

[Signature]
Jill Eigenman
Associate Regional Planner | Inter-governmental Review

Letter L-9

22 March 2007

Ms. Carol Armstrong, LARRMP Project Manager
City of Los Angeles
Department of Public Works, Bureau of Engineering
1149 S. Broadway, Suite 600
Los Angeles, CA 90015

RE: SCAG Comments on the Draft Joint Programmatic EIR/EIS (PEIR/PEIS) for the Los Angeles River Revitalization Master Plan (LARRMP) project
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Sincerely,

[Signature]
Jill Eigenman
Associate Regional Planner | Inter-governmental Review

L-9-1: Comment acknowledged. We concur.

L-9-2: There may conceivably be inconsistencies between LARRMP and the existing plans. As the plan goes through its next phase of developing land use, planning, and development guidelines, it will be clearer what these inconsistencies might be. The Plan recognized this possibility and conceded that community plans and the General Plan Framework may have to be revisited subsequent to the effort of developing the River Improvement Overlay (RIO) district. This process is highly stakeholder-driven and will involve preparation of additional environmental review. The Community Plan update process, which will follow the adoption of this Plan, will enable assessment of impacts on housing, loss of affordable housing, jobs, and will examine issues related to zoning modifications, gentrification, and preservation of community standards in terms of community stability and makeup. Again, this is a stakeholder-driven process that is best suited to gauge community support. The overall policy of this Plan is to encourage the retention and strengthening of stable residential areas, and to balance these with a long-term program to acquire properties for flood protection and River improvement. All measures, including inclusionary zoning, equitable distribution of benefits, and rent and job stabilization strategies would be available to the community as they take part in developing their Community Plan revisions. The Plan does not advocate net removal of any affordable housing without proper compensation, replacement, and if necessary, relocation assistance/compensation within the neighborhood per the policies of the City of Los Angeles. Concurrent with the adoption of this plan, the project recommends that the City Planning Department initiate review of the General Plan, Community Plan, and/or Specific Plan requirements, including public outreach, to ensure conformity with the goals and objectives and policy recommendations contained in the LARRMP. Specific land use measures and changes will be evaluated at that time. Design standards and guidelines with the River Improvement Overlay (RIO) district will also be evaluated with public participation and additional environmental review.
<table>
<thead>
<tr>
<th>Comments</th>
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<tbody>
<tr>
<td>L-9-3: Comment acknowledged. See previous response.</td>
<td></td>
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<tr>
<td>L-9-4: Comment acknowledged.</td>
<td></td>
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<tr>
<td>L-9-5: CEQA does not require additional review at the Final EIR stage. The 45-day public review period is a CEQA requirement for the draft document. We have already exceeded that requirement.</td>
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</table>
Public Comments and Responses

Comments

22 March 2007
Ms. Caro Armstrong
Page 2

COMMENTS ON THE DRAFT JOINT PROGRAMMATIC EIR/EIS (PEIR/PEIS) FOR THE LOS ANGELES RIVER REVITALIZATION MASTER PLAN (LARRMP) PROJECT
SCAG NO. 1 20070049

PROJECT DESCRIPTION

The LARRMP is intended to serve as a blueprint for implementing a variety of greening projects, including the development of parks and open space, pedestrian and bicycle trails, bridges, enhanced connector streets, channel modifications, ecological restoration, revitalized riverfront communities in key opportunity areas and recommendations for a River Improvement Overlay district along the 32-mile stretch of the River within the City of Los Angeles. Implementing LARRMP recommendations over the near-term planning period (5 to 20 years) and the long-term period (20 to 50 years) constitutes the proposed action evaluated in the draft PEIR/PEIS. The general project area includes approximately one ½ mile on each side of the 32-mile River corridor that begins near Owensmouth Avenue in Canoga Park and continues downstream to Washington Boulevard. The LARRMP provides recommendations in four broad categories: physical modifications to the River channel, open space development, multi-purpose revitalization in twenty opportunity areas and River corridor governance and management.

CONSISTENCY WITH REGIONAL COMPREHENSIVE PLAN AND GUIDE POLICIES

The Growth Management Chapter (GMC) of the Regional Comprehensive Plan and Guide (RCPG) contains the following policies that are particularly applicable and should be addressed in PEIR/PEIS for the Los Angeles River Revitalization Master Plan project.

3.01 The population, housing, and jobs forecasts, which are adopted by SCAG’s Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review.

Regional Growth Forecasts

The EIR should reflect the most current SCAG forecasts, which are the 2004 RTP (April 2004) Population, Household and Employment forecasts. The forecasts for your region, subregions, and city are as follows:

<table>
<thead>
<tr>
<th>Adopted SCAG Regionwide Forecasts</th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>19,206,861</td>
<td>20,191,117</td>
<td>21,137,519</td>
<td>22,035,416</td>
<td>22,806,759</td>
</tr>
<tr>
<td>Households</td>
<td>6,072,578</td>
<td>6,463,402</td>
<td>8,865,355</td>
<td>7,263,519</td>
<td>7,960,107</td>
</tr>
<tr>
<td>Employment</td>
<td>8,736,285</td>
<td>9,198,019</td>
<td>9,659,847</td>
<td>10,109,776</td>
<td>10,527,202</td>
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<tr>
<th>Adopted City of Los Angeles Subregion Forecasts</th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>4,176,079</td>
<td>4,237,887</td>
<td>4,298,881</td>
<td>4,367,359</td>
<td>4,413,425</td>
</tr>
<tr>
<td>Households</td>
<td>1,303,035</td>
<td>1,460,680</td>
<td>1,628,771</td>
<td>1,596,055</td>
<td>1,663,002</td>
</tr>
<tr>
<td>Employment</td>
<td>2,031,042</td>
<td>2,096,196</td>
<td>2,177,220</td>
<td>2,213,427</td>
<td>2,265,206</td>
</tr>
</tbody>
</table>

* The 2004 RTP growth forecast at the regional, county and subregional level was adopted by RC in April, 2004.

SCAG staff comments: The Draft PEIR/PEIS discussed the consistency of the proposed program with Policy 3.01 of SCAG’s RCPG. Section 5.2.2, at pages 5-3 and 5-4 stated:

Responses

L-9-6: Comment acknowledged.
"Implementation of the LARRMP is not expected to result in significant growth-inducing impacts in the greater Los Angeles area as a whole. However, potentially significant local or community changes in growth are expected to occur. Development and reinvestment in the River Corridor to include the opportunity areas is expected. As efforts intensify to develop continuous bike and pedestrian paths along the Los Angeles River and to return the river to a more natural state, and as parks are developed along the river’s banks, the river will increasingly become a valuable recreational resource and community asset. This will make the area a desirable place to live and work. The opportunity areas may experience growing pressure for valuable joint livework space, a trend seen in other industrial areas of the City. There would be increased demand for residential housing and light commercial development in the river corridor with implementation of the LARRMP. There would be an increase in condominiums, apartments, single-family homes, retail stores, and restaurants, especially in and adjacent to the opportunity areas. However, a balance should be maintained between residential/park use and commercial/industrial uses. Historically, there has been a preponderance of commercial and industrial development in the River Corridor, especially in the downtown area. The River Corridor is also heavily used by the railroad. If changes in land use are to occur, they must be coordinated with local communities and land use plans. Maintaining adequate manufacturing, warehouse, and industrial facilities is vital to the economic health of Los Angeles. Implementation of the LARRMP would also create a substantial number of design and construction jobs. Some measures, such as channel modifications and constructing an island at the Chinatown-Compton area, would create numerous jobs and most likely would take years to complete (from design through construction). Potential impacts on population growth and land use changes would be addressed on a site-specific and cumulative basis in the future as measures are considered for implementation. Appropriate mitigation measures would also be developed at that time."

SCAG concludes that the program would be consistent with Policy 3.01.

3.03 The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region’s growth policies.

L-9-7: It is the policy of the City of Los Angeles, through its General Plan and Community Plan revisions to be consistent with SCAG’s Regional Growth Plan, SCAG population projections, and SCAG’s Regional Transportation Plan. All of these plans are developed to be internally consistent.

L-9-8: Comment acknowledged. See response to L-9-2.
L-9-8: The LARRMP is focused on achievement of minimizing the cost of infrastructure including creation of parks, environmental enhancement and partial restoration, creation of trails, support of non-motorized transportation system and community revitalization through this and subsequent efforts. Additionally, the proposed 3-tiered governance structure is intended to result in a streamlined, more efficient system of public service delivery, which would be consistent with SCAG policy 3.09.

L-9-9: Establishment of a governance structure is intended to streamline functions, minimize red tape, and expedite permitting processes now involving multiple jurisdictions, including the County of Los Angeles, the City of Los Angeles, and the U.S. Army Corps of Engineers. Within the City, establishment of the Los Angeles River Special Project Office within the Department of Public Works would also contribute to expediting the implementation process.

L-9-11: Comment acknowledged.
Comments

L-9-11

“Both adverse and beneficial transportation impacts could result from implementing the two main types of river channel modification measures (nonvelocity-reducing and velocity-reducing) and the suite of open space measures described in Chapter 2. Potential adverse impacts include short-term impacts from construction activities, such as truck traffic and lane closures. Long-term adverse impacts include increased traffic and parking demand due to more visitors to the areas. Green streets can also restrict visibility if the plants are not kept pruned, which in turn could cause an increase in traffic accidents. Acquiring ROW to develop park spaces or terracing along the river could impact arterial streets and railroads. On the beneficial side, green streets that add landscaping and employ traffic calming measures, such as medians, pedestrian bridges, speed humps, raised crosswalks, and textured paving, would generally provide positive impacts. Implementing safe alternative transportation opportunities, such as those for pedestrians and cyclists, would also create positive impacts.”

SCAG concludes that the program would be consistent with Policy 3.12.

L-9-12

3.14 Support local plans to increase the density of future development located at strategic points along the regional commuter rail, transit system, and activity centers.

SCAG staff comments: It would be helpful if the Final EIR would provide a discussion and address the manner in which the program is supportive or detracts from the achievement of any plans to increase density of future development located at strategic points. Based on the information provided in the Draft PEIR/PEIS, we are unable to determine if the program is consistent with Policy 3.14. Please address this in the Final EIR.

L-9-13

3.19 SCAG shall support policies and actions that preserve open space areas identified in local, state, and federal plans.

SCAG staff comments: The Draft PEIR/PEIS discussed the consistency of the proposed program with Policy 3.19 of SCAG’s ROCPG. Section 4.8, at page 4-85 stated:

“At a programmatic level, any of the identified Open Space Development Measures could result in inconsistencies with the adopted land use/density designation in the General Plan, Community Plan, neighborhood plan, specific plan for the site, or adopted environmental goals and policies of other applicable plans. If in the future an Open Space Development Measure is considered for implementation during the subsequent community planning process at a specific site, further analysis to identify all relevant land use plans and policies and to evaluate the measure’s consistency with those plans and policies will be required. Evaluation of consistency and compatibility should include the Master Plans in place for the Los Angeles River, Sepulveda Basin, and Griffith Park and the General Plans for Rio De Los Angeles and Los Angeles State Historic Parks in the River Corridor, where applicable. Consistency and compatibility with the IRWMP and any projects approved for funding therein should also be evaluated. Any proposed land use that is not consistent with existing land uses as approved in the area’s Community Plan could result in high and potentially significant land use impacts. If significant impacts are identified, mitigation measures will need to be identified and evaluated to reduce potential impacts to less than significant levels.”

DOC#133348
L-9-13

SCAG concludes that the program would be consistent with Policy 3.19.

3.20 Vital resources as wetlands, groundwater recharge areas, woodlands, production lands, and land containing unique and endangered plants and animals should be protected.

**SCAG staff comments:** The Draft PEIR/PEIS discussed the consistency of the proposed program with Policy 3.20 of SCAG’s RCOP. Section 4.7.2.3 at pages 4-52 and 4-53 stated:

“Overall, the levels of adverse impacts on biological resources from implementing the LARRMP channel modification measures and the open space development measures are expected to be low to moderate. Most of the river channel has minimal habitat values, except for Sepulveda Basin and through the Glendale Narrows. Higher value habitats should be avoided to the extent possible and/or should be incorporated into project designs. Channel modifications in the Sepulveda Basin and the Glendale Narrows areas would potentially have short-term high and significant adverse impacts. Adverse impacts on wetlands and higher value habitat in the stream channel would be offset by creating and enhancing these habitats. Construction-related impacts would be temporary and minor. No threatened or endangered species are known or expected to inhabit the corridor. On this basis, therefore, a net gain of ecological benefits is expected by implementing the LARRMP measures. Beneficial impacts on biological resources have the potential of being major to significant, depending on the amount and type of habitat constructed. Implementing these measures, especially the river channel modifications, would contribute to the cumulative amount of fish and wildlife habitat in the River Corridor, along with contributing to the amount of open space in the Los Angeles basin.”

SCAG concludes that the program would be consistent with Policy 3.20.

L-9-14

3.21 Encourage the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites.

**SCAG staff comments:** Section 4.16 of the Draft PEIR/PEIS discussed cultural and paleontological resources, the potential impacts that may result from implementation of the LARRMP, as well as mitigation actions and best management practices. Section 4.16.8 at pages 4-199 and 4-200 stated:

Further project-level investigations, assessments, and evaluations to identify, evaluate, and determine levels of impacts on cultural resources are required prior to implementing LARRMP revitalization measures. When specific LARRMP revitalization measures are not for analysis, the Corps and the City may choose to enter into a programmatic agreement with the NHP and others to satisfy the requirements of Section 106 of the NHPA for all or portions of the proposed project. Because many of the LARRMP revitalization measures and cultural resource impact issues are common to the whole project, a programmatic agreement may be a solution for addressing cultural resources for the plan implementation and avoiding redundant consultations. Alternatively, the Corps and the City may choose to address
cultural resources on a project-by-project basis because of the long
implementation time frame, project funding or phasing, and differences between
specific project sites. For example, there would be differences between the
potential types of historical-archaeological sites expected in the Downtown
Opportunity area and the Canoga Park Opportunity area.

As specific LARRMP implementation projects are identified and undertaken in
the future, additional inventory and site- and resource-specific surveys should be
conducted to better define resources and potential impacts. Future project plans
and designs should be coordinated with planners so that potential issues with
cultural and paleontological resources can be avoided, if possible. Potential
mitigation, best management practices, and investigation protocols that could be
employed with future projects to reduce levels of potential adverse impacts
include the following:"

SCAG concludes that the program would be consistent with Policy 3.21.

3.23 Encourage mitigation measures that reduce noise in certain locations, measures aimed at
preservation of biological and ecological resources, measures that would reduce exposure to
seismic hazards, minimize earthquake damage, and to develop emergency response and recovery
plans.

SCAG staff comments: The Draft PEIR/PEIS discussed mitigation actions and best
management practices for hydrology, floodplain, and water quality in section 4.5.8, and mitigation
actions and best management practices for geology, soils, and seismic hazards in section 4.4.8.
Should these mitigation measures be adequately implemented, the program would be consistent
with Policy 3.23.

GMC POLICIES RELATED TO THE RCPG GOAL TO PROVIDE SOCIAL, POLITICAL, AND CULTURAL
EQUITY

The Growth Management Goal to develop urban forms that avoid economic and social polarization promotes
the regional strategic goal of minimizing social and geographic disparities and of reaching equity among all
segments of society. The evaluation of the proposed project in relation to the policy stated below is intended
guide direction for the accomplishment of this goal, and does not infer regional mandates and interference
with local land use powers.

3.27 Support local jurisdictions and other service providers in their efforts to develop sustainable
communities and provide, equally to all members of society, accessible and effective services such as:
public education, housing, health care, social services, recreational facilities, law enforcement, and
fire protection.

SCAG staff comments: The stated Project Goals and Objectives, in the Executive Summary of
the Draft PEIR/PEIS for the LARRMP, on page ES2 include:

* Establish guidelines for environmentally sensitive urban design, land use, and
development for the Los Angeles River that will create economic development
opportunities to enhance and improve river-adjacent communities; this would be
accomplished by providing open space, housing, retail spaces (such as

DOC#133318
L-9-18: As explained in our response to Comment L-9-2, above, there will be subsequent specific projects and programs that will be developed through community planning efforts that would be able to address issues, such as community-based shuttle services, possible telecommunications, and other specific programs referenced in SCAG Policy 5.07.

L-9-19: The LARRMP will conform to the region’s Air Quality Management Plan (AQMP). Specific projects that will be developed subsequent to the approval of this concept level Plan will have their own environmental documents that will ensure compliance with South Coast Air Quality Management District requirements as well as the current AQMP, and other applicable regional, air basin, county, subregional, and local plans affecting air quality, land use, transportation, and economic relationships.

L-9-20: Comment acknowledged.

AIR QUALITY CHAPTER CORE ACTIONS

The Air Quality Chapter (AQC) core actions that are generally applicable to the Program are as follows:

5.07 Determine specific programs and associated actions needed (e.g., indirect source controls, enhanced use of telecommunications, provision of community-based shuttle services, provision of demand management based programs, or vehicle-miles-traveled/emission fees) so that options to command and control regulation can be assessed.

SCAG staff comments: It would be helpful if the Final EIR would provide a discussion and address the manner in which the program is supportive or detracts from the achievement of determining specific programs and associated actions needed. Based on the information provided in the Draft PEIR/PEIS, we are unable to determine if the program is consistent with Policy 5.07. Please address this in the Final EIR.

5.11 Through the environmental document review process, ensure that plans at all levels of government (regional, air basin, county, subregional and local) consider air quality, land use, transportation and economic relationships to ensure consistency and minimize conflicts.

SCAG staff comments: It would be helpful if the Final EIR would provide a discussion and address the manner in which the program is supportive or detracts from the achievement of this policy. Based on the information provided in the Draft PEIR/PEIS, we are unable to determine if the program is consistent with Policy 5.11. Please address this in the Final EIR.

OPEN SPACE CHAPTER ANCILLARY GOALS

The Open Space and Conservation Chapter goals related to the proposed program include:

9.01 Provide adequate land resources to meet the outdoor recreation needs of the present and future residents in the region and to promote tourism in the region.

SCAG staff comments: Please see comments under 9.03.
Comments

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Ms. Carol Armstrong
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9:02  Increase the accessibility to open space lands for outdoor recreation.

SCAG staff comments: Please see comments under 9.03.

9.03  Promote self-sustaining regional recreation resources and facilities.

SCAG staff comments for 9.01, 9.02, and 9.03: Section 2.3 of the Draft PEIR/PEIS discussed the Open Space Development of the LARRMP.

"[The main goal in implementing the LARRMP open space development measures is to eventually develop a continuous greenway along the entire River Corridor that connects adjacent and surrounding communities to the river, while enhancing the habitat, recreation opportunities, aesthetics, water quality, and quality of life. The intention is to employ a suite of open space development measures in selected locations that physically highlight and increase awareness of revitalization, while improving access to the river. Three primary objectives were established in the LARRMP for employing the suite of open space measures, as follows: 1. Establishing and enhancing "greenway connections" along local and main streets, through underpasses, and over bridges to parks, natural areas, public transportation, schools, and other public resources. 2. Providing "greenway expansions" of open space opportunities by developing new local and area parks, habitat areas, and recreational fields; and 3. Developing "greenway extensions" of the River Corridor greenway into surrounding communities by establishing greenways on river tributaries, "greening" selected local and major streets, and constructing new pedestrian bridges. For discussion and evaluation in this PEIR/PEIS, the open space development measures discussed in the LARRMP have been organized under eight categories, as follows: • Parks; • Green streets; • Paseos (covered walkways/lower access points) and promenades; • Trails and bikeways; • Pedestrian river crossings; • River loops; • Gateways; and • Water quality and habitat."

The above-stated goal and objectives regarding the Open Space Development measures for the LARRMP Draft PEIR/PEIS are consistent with SCAG policies 9.01, 9.02, and 9.03.

9.08  Develop well-managed viable ecosystems or known habitats of rare, threatened and endangered species, including wetlands.

SCAG staff comments: Section 4.7.8 of the Draft PEIR/PEIS discussed the consistency of the proposed program with Policy 9.08 of SCAG's RCPG. Page 4-50 stated:

"As specific LARRMP implementation projects are identified and undertaken in the future, site-specific biological surveys would likely need to be conducted to better define biological resources, such as the presence of and potential impacts on wetlands and higher value habitats. Future project plans and designs would need to be coordinated with appropriate resource agencies and land managers to ensure to the greatest extent possible that high value habitats could be accounted for and their functions and values enhanced."

Should the future project plans and designs carry out above-stated measures, the PEIR/PEIS is consistent with Policy 9.08.

Responses

L-9-21: Comment acknowledged.
L-9-22: Comment acknowledged.

L-9-23: The LARRMP incorporates by reference and tiers off the Integrated Resources Plan (IRP) project approved by the City in 2006. In addition, it incorporates and cites the County’s Integrated Regional Water Management Plan (IRWMP). The approved IRP envisions management of up to 42 percent of the dry weather and 47 percent of the wet weather urban runoff generated by the City. These measures include in-cisterns on public properties (e.g., schools), on-site wet weather runoff treatment and percolation on public properties (e.g., parks), and diversion of up to 160 million gallons per day (mgd) of urban runoff into Urban Runoff Plants throughout the City.

L-9-24: The LARRMP will be consistent with the prevailing Regional Transportation Plan (RTP) and its goals and policies; individual projects will be subject to CEQA analysis, including an analysis of their impacts regarding the RTP and applicable SCAG policies.

L-9-24: The LARRMP will be consistent with the prevailing Regional Transportation Plan (RTP) and its goals and policies; individual projects will be subject to CEQA analysis, including an analysis of their impacts regarding the RTP and applicable SCAG policies.
# Regional Transportation Plan Goals
- Protect the environment, improve air quality and promote energy efficiency.
- Encourage land use and growth patterns that complement our transportation investments.

## Regional Transportation Plan Policies
- Transportation investments shall be based on SCAG’s adopted Regional Performance Indicators.

## Performance Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Performance Measures</th>
<th>Performance Definition</th>
<th>Performance Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility</td>
<td>Average Daily Speed</td>
<td>Speed-experienced by travelers regardless of mode.</td>
<td>10% Improvement</td>
</tr>
<tr>
<td></td>
<td>Average Daily Delay</td>
<td>Delay-excess travel time resulting from the difference between reference speed and actual speed. Total daily delay and daily delay per capita are indicators used.</td>
<td>40% Improvement</td>
</tr>
<tr>
<td>Accessibility</td>
<td>Percent PM peak work trips within 45 minutes of home</td>
<td></td>
<td>Auto 80%, Transit 37%</td>
</tr>
<tr>
<td></td>
<td>Distribution of work trip travel times</td>
<td></td>
<td>Auto 8%, Improvement</td>
</tr>
<tr>
<td>Reliability</td>
<td>Percent variation in travel time</td>
<td>Day-to-day change in travel times experienced by travelers. Variability results from accidents, weather, road closures, system problems and other non-recurrent conditions.</td>
<td>10% Improvement</td>
</tr>
<tr>
<td>Safety</td>
<td>Accident Rate</td>
<td>Measured in accidents per million vehicle miles by mode.</td>
<td>0.3% Improvement</td>
</tr>
<tr>
<td>Cost Effectiveness</td>
<td>Benefit-to-Cost (B/C) Ratio</td>
<td>Ratio of benefits of RTP investments to the associated investments costs.</td>
<td>$3.08</td>
</tr>
<tr>
<td>Productivity</td>
<td>Percent capacity utilized during peak conditions</td>
<td>Transportation infrastructure capacity and services provided.</td>
<td>20% Improvement at known benefit cost.</td>
</tr>
<tr>
<td></td>
<td>Roadway Capacity - vehicles per hour per lane by type of facility.</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Transit Capacity - seating capacity utilized by mode.</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>Sustainability</td>
<td>Total cost per capita to sustain current system performance</td>
<td>Focus on overall performance, including infrastructure condition Preservation measure is a subset of sustainability.</td>
<td>$20 per capita, primarily in preservation costs</td>
</tr>
<tr>
<td>Preservation</td>
<td>Maintenance cost per capita to preserve system at base year conditions</td>
<td>Focus is on infrastructure condition. Sub-set of sustainability.</td>
<td>Maintain current condition</td>
</tr>
<tr>
<td>Environmental</td>
<td>Emissions generated by travel</td>
<td>Measured/forecast emissions include CO, NOx, PM10, SOX</td>
<td>Meets conformity requirements</td>
</tr>
</tbody>
</table>
Comments

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Environmental
Justice
- Expenditures by
quintile and ethnicity
- Benefits vs. burden by
quintile

Proportionate share of
expenditures in the 2004
RTP by each quintile.
Proportionate share of
benefits to each quintile.
Proportionate share of
additional
airport noise by
ethnic group.

Proportionate share of
CO2 emissions.
No disproportionate impact
to any group or quintile.

Ensuring safety, adequate maintenance, and efficiency of operations on the existing multi-modal
transportation system will be RTP priorities and will be balanced against the need for system expansion
investments.

RTP land use and growth strategies that differ from currently expected trends will require a collaborative
implementation program that identifies required actions and policies by all affected agencies and
sub-regions.

4.01 Transportation Investments shall be based on SCAG’s adopted Regional Performance Indicators.

SCAG’s Adopted Regional Performance Indicators:

Mobility - Transportation Systems should meet the public need for improved access, and for safe,
comfortable, convenient and economical movements of people and goods.
- Average Work Trip Travel Time in Minutes – 22 minutes
- PM Peak Highway Speed – 33 mph
- Percent of PM Peak Travel in Delay (All Trips) – 33%

Accessibility - Transportation Systems should ensure the ease with which opportunities are reached.
Transportation and land use measures should be employed to ensure minimal time and cost.
- Work Opportunities within 25 Minutes – 88%

Environment - Transportation Systems should sustain development and preservation of the existing
system and the environment. (All Trips)
- Meeting Federal and State Standards – Meet Air Plan Emission Budgets

Reliability - Reasonable and dependable levels of service by mode. (All Trips)
- Transit – 63%
- Highway – 76%

Safety - Transportation Systems should provide minimal, risk, accident, death and injury. (All Trips)
- Fatalities Per Million Passenger Miles – 0.008
- Injury Accidents – 0.92%

Livable Communities - Transportation Systems should facilitate Livable Communities in which all
residents have access to all opportunities with minimal travel time. (All Trips)
- Vehicle Trip Reduction – 1.5%
- Vehicle Miles Traveled Reduction – 10.0%

Responses
L-9-25: As the plan is consistent with the aforementioned IRP, which was approved by the City in 2006, it will be consistent with the latest SCAG projections and Growth Principles. Additionally, the City’s General Plan Framework and the Community Plans themselves are consistent with the Regional Growth Management Plan and the Regional Growth Principles.
Comments

L-9-25

- Develop strategies to accommodate growth that uses resources efficiently, eliminate pollution and significantly reduce waste.
- Utilize "green" development techniques.

SCAG staff comments: It would be helpful if the Final EIR would provide a discussion and address the manner in which the program is supportive or detracts from the achievement of the Regional Growth Principles. Based on the information provided in the Draft PEIR/PEIS, we are unable to determine if the program is consistent with the Principles of the Compass Growth Vision. Please address this in the Final EIR.

CONCLUSIONS

L-9-26

1. As noted in the staff comments, the Draft PEIR/PEIS for LARRMP-SCAG No. 1 20070049 is consistent with or support many of the core and ancillary policies in the RCPG.

L-9-27

2. All feasible measures needed to mitigate any potentially negative regional impacts associated with the proposed program should be implemented and monitored, as required by CEQA.

Responses

L-9-26: Comment acknowledged.

L-9-27: Comment acknowledged.
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

Roles and Authorities

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS (SCAG) is a Joint Powers Agency established under California Government Code Section 65522 et seq. Under federal and state law, SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). SCAG's mandated roles and responsibilities include the following:

SCAG is designated by the federal government as the Region's Metropolitan Planning Organization and mandated to maintain a continuing, cooperative, and comprehensive transportation planning process resulting in a Regional Transportation Plan and a Regional Transportation Improvement Program pursuant to 23 U.S.C. 134, 49 U.S.C. 5301 et seq., 23 C.F.R. 450, and 49 C.F.R. 513. SCAG is also designated Regional Transportation Planning Agency, and as such is responsible for both preparation of the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP) under California Government Code Section 65080 and 65082 respectively.

SCAG is responsible for developing the demographic projections and the integrated land use, housing, employment, and transportation programs, measures, and strategies portions of the South Coast Air Quality Management Plan, pursuant to California Health and Safety Code Section 44060(b)-(c). SCAG is also designated under 42 U.S.C. § 7504(a) as a Co-Lead Agency for air quality planning for the Central Coast and Southeast Desert Air Basin Districts.

SCAG is responsible under the Federal Clean Air Act for determining Conformity of Projects, Plans and Programs to the State Implementation Plan, pursuant to 42 U.S.C. § 7501.

Pursuant to California Government Code Section 65590.2, SCAG is responsible for reviewing all Congestion Management Plans (CMPs) for consistency with regional transportation plans required by Section 65085 of the Government Code. SCAG must also evaluate the consistency and compatibility of such programs within the region.

SCAG is the authorized regional agency for Inter-Governmental Review of Projects proposed for federal financial assistance and direct development activities, pursuant to Presidential Executive Order 12,372 (replacing A-95 Review).

SCAG reviews, pursuant to Public Resources Code Sections 21063 and 21087, Environmental Impacts Reports of projects of regional significance for consistency with regional plans (California Environmental Quality Act Guidelines Sections 15068 and 15126).

Pursuant to 33 U.S.C. § 1288(a)(2) (Section 208 of the Federal Water Pollution Control Act), SCAG is the authorized Areawide Waste Treatment Management Planning Agency.

SCAG is responsible for preparation of the Regional Housing Needs Assessment, pursuant to California Government Code Section 65584(a).

SCAG is responsible (with the Association of Bay Area Governments, the Sacramento Area Council of Governments, and the Association of Monterey Bay Area Governments) for preparing the Southern California Hazardous Waste Management Plan pursuant to California Health and Safety Code Section 25135.3.

Revised: July 2001
March 27, 2007

Carol Armstrong
City of Los Angeles, Public Works Department
Bureau of Engineering
Environmental Management Division
1149 S. Broadway, Suite 600
Los Angeles, CA 90015

RE: Southern California Regional Rail Authority (SCARRA) Comments on the EIR for the Los Angeles River Revitalization Master Plan (LARRMP)
[SCAG ID No. 120070049]

Dear Ms. Armstrong:

As background information, SCARRA is a five-county Joint Powers Authority (JPA) that operates the regional commuter rail system known as Metrolink on member agency-owned and on private freight railroad rights of way. Additionally, SCARRA provides a range of rail engineering, construction, operations and maintenance services to its five JPA member agencies. The JPA member agencies are the Los Angeles County Metropolitan Transportation Authority (METRO), Orange County Transportation Authority (OCTA), San Bernardino Associated Governments (SANBAG), Riverside County Transportation Commission (RCTC) and Ventura County Transportation Commission (VCTC). Although Metro owns the railroad right of way, Metro has assigned responsibility to the SCARRA for design, operation and maintenance of the railroad through the LARRMP area.

The reach of the Los Angeles River from just north of the Ventura Freeway (SR 134) near the Verdugo Wash south to Washington Blvd. is in close proximity to SCARRA’s railroad right of way, requiring SCARRA’s involvement in the review of all development proposals. Hundreds of millions of dollars in infrastructure investments have been made to the railroad corridor along the river since 1875. Many of the railroad investments made during the last 20 years have been as an alternative to highway travel and to improve the quality of life for Southern California residents. It is SCARRA’s statutory responsibility to provide commuter rail service and to maintain the railroad right of way for interstate freight and passenger commerce. This letter conveys recommendations from the SCARRA concerning issues that are germane to our agency’s statutory responsibilities in relation to the proposed project.

We provided lengthy comments on the project in general, following the issuance of the Notice of Preparation, in a letter to Dr. Ara Kasparian on May 4, 2006, a copy of which is provided for your reference. With the release of the Draft Plan, we now offer the following more specific
comments on the elements of the Plan that may affect Metrolink and other passenger and freight rail traffic in this area.

**River Glen Opportunity Area**

L-10-1: Comment acknowledged. This has been discussed with the LARRMP planning team. Specific design elements will be further explored during project-level analysis.

L-10-2: Comment acknowledged. This has been discussed with the LARRMP planning team. Specific design elements will be further explored during project-level analysis.

L-10-3: Comment acknowledged. We concur on the importance of continued coordination. This has been discussed with the LARRMP planning team.

L-10-4: Comment acknowledged. This has been discussed with the LARRMP planning team. We concur that, where possible, pedestrian access to the River, such as at this crossing, should be grade-separated, and that careful attention should be given to pedestrian, bicycle, and vehicular sightlines of the railroad at this and other potential crossings. Specific design elements will be further explored during project-level analysis.

L-10-5: Comment acknowledged, we concur. This has been discussed with the LARRMP planning team. Please see response to L-10-4; specific design elements will be further explored during project-level analysis. See also response to Comment L-4-3.

**Taylor Yard Opportunity Area**

The Taylor Yard Opportunity Area is one of the most ambitious locations in terms of transition of current land uses to other uses. Developments proposed for the east side of the rail corridor include a State park, a high school, and residential uses. All of these will generate significant vehicular and pedestrian traffic across the active rail corridor, where essentially none currently exists today. We reiterate our earlier comment that these new uses must provide safe, grade-separated access across the tracks if the Plan envisions access to the River at these locations. We also note potential new pedestrian access ways at Edward Way, Media Center Drive, and Railway Portal, identified as projects 161 and 162 on the Draft Plan map. The time to plan for these is now.
L-10-6: Comment acknowledged. We concur on the importance of continued coordination. This has been discussed with the LARRMP planning team.

L-10-7: Comment acknowledged. We concur. This has been discussed with the LARRMP planning team. Appropriate coordination, engineering, and approval from the Corps of Engineers, Los Angeles County Department of Public Works, and other applicable regulatory agencies would take place during design and prior to construction, including the coordination on the tail track.

L-10-8: Comment acknowledged. We concur. The diagram shows the railroad maintained at the existing elevation, with an undercrossing for pedestrian access.

L-10-9: Comment acknowledged. This has been discussed with the LARRMP planning team. The design and determination of the impacts of this crossing would occur during project-level analysis.

L-10-10: Comment acknowledged. This has been discussed with the LARRMP planning team. We concur that, where possible, pedestrian access to the River should be grade-separated. Specific design elements will be further explored during project-level analysis.

L-10-6: At present, SCRRRA maintains an alternative route from its Central Maintenance Facility adjacent to Taylor Yard to the active mainline railroad tracks. This alternate route is necessary in case of blockage of access to the mainline via the normal route. This emergency route follows the alignment of the River at the location proposed for a new pedestrian and bikeway bridge connecting Dorris Place and the east side of the River, noted as project 171. It will be necessary to carefully design the proposed Dorris Place bridge and adjacent access ways to avoid potential conflicts. Alternatively, SCRRRA may need to realign the current emergency access way to accommodate the larger project described below.

L-10-7: Of paramount significance is the proposal to convert the G2 parcel, currently the location of the closed Union Pacific locomotive shop, to a "regional water quality treatment facility, capturing runoff from very large box culverts that transport stormwater runoff that emerges from pipes in Glendale Park." This plan proposes to remove the current concrete channel walls, and apparently to construct the treatment facility up to the active railroad right of way. Prior to moving forward with this element, SCRRRA requests that significant hydrologic and geotechnical work be done by responsible agencies, including the U.S. Army Corps of Engineers, to design the facility in such a way as to mitigate the possibility of erosion of the active railroad right of way by runoff from this facility. SCRRRA and the owner of the right of way, the Los Angeles County Metropolitan Transportation Authority, must be assured that any such facility will provide protection from erosion. The railroad right of way cannot be the last line of defense in case of flooding. In addition, SCRRRA currently has an agreement with the Union Pacific Railroad (UPRR) to use a "tail track" on the current Taylor Yard property when the need arises for alternate access to and from the north end of the Metrolink Central Maintenance Facility. SCRRRA desires to retain the ability to access this track if and when there is any transfer of ownership of the G2 parcel.

L-10-8: The primary alternative for the Chinatown – Cornfields Area proposes the creation of an island, upon which is the railroad alignment. The text of the plan indicates that the railroad is to be elevated on a trestle or other elevated structure. Two photographs on page 6-31 and 6-32 show the railroad at grade, including the creation of a new major pedestrian access way adjacent to Broadway (p. 6-32). SCRRRA would certainly prefer the railroad to be grade separated throughout this reach, thereby avoiding the need for an at-grade pedestrian crossing.

L-10-9: It is unclear in the Draft Plan how Main Street is to cross the proposed wetlands area and the elevated railroad. SCRRRA has long proposed the grade separation of Main Street and the two sets of tracks on each side of the River.

L-10-10: A new crossing near the Mission Road Rail Yards is proposed on page 6-33. It is unclear where this crossing is proposed, but we are concerned that an increase in the number of pedestrian crossings in this area will create a safety hazard. As mentioned above, new grade crossings should be grade separated, or consolidated with other crossings, in order to minimize the opportunities for interaction between trains and pedestrians.
Comments

**Downtown Industrial Area Opportunity Area**

L-10-11: Comment acknowledged. This has been discussed with the LARRMP planning team. We concur on the importance of continued coordination.

L-10-12: Comment acknowledged, we concur. These crossings are depicted as grade-separated.

L-10-13: Comment acknowledged.

L-10-14: Comment acknowledged.

**Conclusion**

In conclusion, we would like to acknowledge the progress that has been made to date as a result of discussions between SCRRRA staff and members of the Project Team. We look forward to continued discussions with you as the Plan moves forward. If you have any questions regarding these comments please contact Laurene Lopez, Community Relations Administrator, at (213) 452-0288 or by e-mail at llopez@scrrra.net.

Sincerely,

David Solow
Chief Executive Officer

cc: Patricia Chen, Metro
Susan Chapman, Metro
Freddy Cheung, UP RR
Bill Bronta, Caltrans
Rosa Munoz, CPUC
John Hutchinson, Amtrak

Responses

L-10-11: Comment acknowledged. This has been discussed with the LARRMP planning team. We concur on the importance of continued coordination.

L-10-12: Comment acknowledged, we concur. These crossings are depicted as grade-separated.

L-10-13: Comment acknowledged.

L-10-14: Comment acknowledged.
<table>
<thead>
<tr>
<th>Letter O-1</th>
<th>Comments</th>
<th>Responses</th>
</tr>
</thead>
</table>
| Alianza de los Pueblos del Río | Dr. Carol Armstrong  
City of Los Angeles  
Department of Public Works  
Bureau of Engineering  
1149 S. Broadway, Suite 600  
Los Angeles, CA 90015 | Re: Comments on Draft Los Angeles River Revitalization Master Plan and Draft Environmental Impact Report/Draft Environmental Impact Statement |
| **March 27, 2007** | Dear Dr. Armstrong: | **Dear Dr. Armstrong:** |
| | These comments are submitted by Anahuac Youth Sports Association, The City Project, Mujeres de la Tierra, and REMAPPING-LA. | |
| | The purpose of this letter is to provide public comments on the Los Angeles River Revitalization Master Plan Draft Environmental Impact Report/Draft Environmental Impact Statement (DEIR/S). We incorporate by reference the accompanying public comments on the Draft Los Angeles River Revitalization Master Plan (draft Plan). | |
| | We support the revitalization of the Los Angeles River. We appreciate the efforts by the Los Angeles River Ad-Hoc Committee, its Chairman Councilman Ed Reyes, and many agencies and staff members for developing the DEIR/S. | |
| | Our purpose here is to help improve the DEIR/S by ensuring that the benefits and burdens of river revitalization are distributed fairly, and that the EIR/S process provides full and fair information and public participation in deciding the future of the river. Revitalizing the Los Angeles River while ensuring the fair treatment of people of all colors, cultures, and incomes can help transform Los Angeles into a more livable, democratic, and just community, and provide a replicable model for community redevelopment elsewhere.1 | |
| | The DEIS/DEIR was prepared to fulfill the requirements of the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). NEPA has twin aims. “First, it places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action. Second, it ensures that the agency will inform the public that it has indeed considered environmental concerns in its decisionmaking process.” Baltimore Gas & Electric Co., v. NRDC, 462 U.S. 87, 97 (1983); Robertson v. Methow Valley Citizens Council, 440 U.S. 332 349-50 (1989) (an EIS serves an “informational role” and provides a “spring board for public comment”). Similarly, the basic purpose of an EIR under CEQA “is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made.” Citizens of Goleta Valley v. Board of Supervisors, 52 Cal.3d 553, 564 (1990). | |
Comments
Dr. Carol Armstrong  
March 27, 2007  
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O-1-1: Comment acknowledged. Thank you for the documents included with your letter. They are now part of the public record and are available upon request from the City of Los Angeles. CEQA Guidelines, Section 15088.5 (a) through (g) sets the conditions under which an EIR may be circulated. None of these conditions are triggered. No specific rational is given for recirculation and in the opinion of the lead agency none exists.

O-1-2: Comment acknowledged. The study area of one half-mile on each side of the River and the expanded study areas encompassing each of the five Opportunity Areas were considered sufficient to evaluate at the programmatic concept level the potential impacts of future LARRMP implementation projects. The half-mile study area is also consistent with Los Angeles County’s Master Plan. Zip codes were chosen as a basis for developing some of the socioeconomic data for the PEIR/PEIS primarily for three reasons: (1) zip codes are based on a compilation of census block data; (2) they provided ready access to a broader array of census-based data than through basic census block information available at the time; and (3) they allowed a coverage area that extended beyond the half-mile boundary of the River Corridor study area. The coverage afforded by zip codes is considered sufficient for the programmatic analysis in this PEIR/PEIS of concept level planning within the River Corridor and Opportunity Areas. However, you are correct that the zip code coverage in the Draft PEIR/PEIS had a slight error, and this has been corrected in the Final PEIR/PEIS.

O-1-3: Comment acknowledged. Environmental justice has its origins with Title VI of the Civil Rights Act of 1964 which states “No person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” In 1994 Executive Order 12898 was issued and gave a renewed emphasis to Title VI and added low-income populations to those protected by the principles of environmental justice. With respect to how EO 12898 directs the evaluation of environmental justice, the following language from the EO is relevant:

Responses
Public Comments and Responses

Comments

O-1-3 (cont.): “To the greatest extent practicable and permitted by law ... each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States.”

EO 12898 is intended to cover all aspects of potential human discrimination. Relevant language in the EO includes: “assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings...to attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences; to preserve important historic, cultural, and natural aspects of our natural heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice; and to achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life’s amenities.”

Responses

Environmental justice issues encompass a broad range of impacts covered by NEPA, including impacts on the natural or physical environment and interrelated social, cultural and economic effects. In preparing an EIS or an EA, agencies must consider both impacts on the natural or physical environment and related social, cultural, and economic impacts. Environmental justice concerns may arise from impacts on the natural and physical environment, such as human health or ecological impacts on minority populations, low-income populations, and Indian tribes, or from related social or economic impacts.

The analysis in this DEIR/DEIS is based on NEPA and CEQA guidelines. The NEPA guidelines rely on the Executive Order 12898 for the evaluation of environmental justice.
O-1-3 (cont.): On this basis, the programmatic analysis of environmental justice in this PEIR/PEIS is considered sufficient. Project-level analyses will look more closely at potential disproportionate effects on low-income or minority populations that are predominant in the locations of future LARRMP implementation projects. This will include considering several alternatives and making sure that environmental justice populations have access to public resources including parks and recreational areas.

The Citywide General Plan Framework, an Element of the the City of Los Angeles General Plan was originally adopted by the City Council on December 11, 1996. It was subsequently re-adopted on August 8, 2001. "This Element is a guide for communities to implement growth and development policies by providing a comprehensive long-range view of the City as a whole." The Element's strategies are based upon several principles which include: Economic Opportunity, Equity and Environmental Quality.

Chapter 9 of the City’s General Plan (which covers Infrastructure and Public Services explicitly) requires in Goal 9L (Recreation and Parks) that the City provide "sufficient and accessible parkland and recreation opportunities in every neighborhood of the City, which gives all residents the opportunity to enjoy green spaces, athletic activities, social activities and passive recreation." Further policies such as 9.23.2 require the City to “Prioritize the implementation of recreation and park projects in areas of the City with the greatest existing deficiencies." Text in Sections 4.15.1.1 and 4.15.2.1 has been modified.

O-1-4: Comment acknowledged. The LARRMP is a vision document focusing upon the River corridor within the City of Los Angeles and therefore cannot promise to definitively provide solutions to these region-wide public health and social justice issues.
O-1-4 (cont.): The LARRMP’s ability to provide parks and open spaces that would be considered adequate to meet “unfair park, school, and health disparities” within the region is not reasonably predictable at this time. Such region-wide issues concern a number of jurisdictions and agencies and must be addressed in a comprehensive and concerted way with considerable public involvement. The Plan can certainly begin to provide opportunities in a variety of areas, but the viability of specific projects is dependent upon community planning and public involvement (Please see LARRMP Chapter 8.) processes that would take place subsequent to Plan adoption.

O-1-5: Comment acknowledged. We concur that developing additional parks would help meet the ever increasing demand for recreation. These benefits are implied in the Goals and Objectives of the LARRMP. However, it is also a likely result of increased visitation to the River Corridor that, until new recreational resources are implemented, existing facilities could become congested. A CEQA and NEPA environmental review typically focuses on potential adverse impacts and how they can be mitigated. This is a reasonable assumption to make at the programmatic level, but project-specific impacts may not yield similar impacts in each case.

O-1-6: This is a concept level, Programmatic EIR/S that is prepared per CEQA Guidelines Section 15168. As per 15168(b) (4), the Program EIR/(S) is for the purpose of allowing the City to consider “broad policy alternatives and program wide mitigation measures” early on. Section 15168(c) clearly recognizes that “Subsequent activities in the program must be examined in the light of the program EIR” to see if additional environmental documents must be prepared. The comment assumes housing displacement and gentrification as unmitigated impacts. The commitment of the lead agency is to design and plan future, subsequent projects in a way that these potential impacts are fully mitigated though additional environmental documents and decisions.
Public Comments and Responses

6. Transportation

The DEIR/S states that no federally funded transportation facilities will be constructed as part of future river revitalization projects, and that therefore no analysis of federal regulations is required (page 4-134). That proposition is incredible and must be wrong. Federal transportation funds have been used in the past for river revitalization projects including bikeways and bridges. Federal funds presumably will be available for transportation projects related to the river in the future. It is not clear why the DEIR/S turns its back on federal funding. The DEIR/S should be revised and should analyze applicable federal regulations and potential federal funding for transportation projects.

O-1-7: Comment acknowledged. We concur. Language will be added in Section 4.12.1.1 (Regulatory Framework), discussing federal regulations regarding federal funding.

O-1-8: Comment acknowledged. The reference to Section 4.12.10 been changed to Section 4.12.8.

O-1-9: Comment acknowledged. Text will be revised in Section 4.12.6 of the Final PEIR/PEIS.

O-1-10: Comment acknowledged. We concur. Focus was intended to be increased maintenance needs. Text in Section 4.14.2.2 will be changed in Final PEIR/PEIS.

O-1-11: Comment acknowledged.

O-1-12: Only the cultural resources designated under a federal, state, or local historic preservation law and identified in the record search conducted by the South Central Coastal Information Center were included in the resource tables. Other cultural resources are expected to be present and would be identified when specific LARRMP measures are proposed. A full identification and comprehensive list of cultural resources that may be present and resolution of incomplete or inconsistent records was not attempted as part of this programmatic overview.

The referenced bridges were not identified by the South Central Coastal Information Center as designated historic resources in the record search although there are historic bridges present, which have been evaluated. The bridges that have been recommended for inclusion and are pending formal designation as City of Los Angeles Cultural-Historic Monuments will be added to the table.

O-1-13: Comment acknowledged. We concur.

O-1-14: Comment acknowledged. The bridges that were drawn for the Historic American Engineering Record (HAER) and not...
Dr. Carol Armstrong
March 27, 2007
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F-69

Public Comments and Responses

Comments

O-1-14 (cont.): previously included in the tables will be added, referencing their historic status.

O-1-15: Comment acknowledged. Text will be added to the section acknowledging the likely status of this unevauluated resource. There are many uninvetoried buildings and structures of historic age and resources that should be reevaluated when specific projects and “Areas of Potential Effects” are defined.

O-1-16: Comment acknowledged. The presence or absence of the referenced resources will be corrected. In particular, the San Fernando Road Bridge, Dorris Place School, North Spring Street Bridge, First, Fourth, Sixth, and Seventh Street Bridges will be added.

O-1-17: Comment acknowledged. Text will be added to acknowledge the age and possible historic status of unevauluated flood control infrastructure.

O-1-18: Comment acknowledged. We concur, that implementation of many of the LARRMP measures would have the potential to result in both positive benefits and adverse impacts on aspects of hydrology, flood capacity, and water quality. These positive benefits are implied in the Goals and Objectives of the LARRMP. A CEQA and NEPA environmental review typically focuses on potential adverse impacts and how they can be mitigated.

O-1-19: Comment acknowledged. We concur, that implementation of some of the LARRMP measures could also have the potential to result in a reduction in trash in some areas along the River Corridor. A CEQA and NEPA environmental review typically focuses on potential adverse impacts and how they can be mitigated.

O-1-20: Comment acknowledged.
O-1-21: Comment acknowledged. We concur, that implementation of some of the LARRMP measures could also have the potential to result in a reduction in trash in some areas along the River Corridor. A CEQA and NEPA environmental review typically focuses on potential adverse impacts and how they can be mitigated.

O-1-22: Comment acknowledged. Examples of these types of warning measures are discussed in Section 4.11.2.2 (Potential Impact Levels). A better placement for this discussion might be the preceding Section 4.11.2.1 (General types of Impacts and Mitigation), under the discussion of Los Angeles River Water Safety.

O-1-23: Comment acknowledged.

O-1-24: Comment acknowledged. Reference to this project will be deleted in the Final PEIR/PEIS.

O-1-25: Comments acknowledged. Edits will be reviewed and incorporated as appropriate.

O-1-26: Comment acknowledged. Because this is a programmatic level analysis, because the document was available for public review for more than 50 days, because specific concerns may be adequately addressed in future project-level analyses, and because changes made in the Final PEIR/S provide clarification of key issues raised, the final document will not be recirculated according to the requirements for the draft. CEQA does not require additional review at the Final EIR stage. The 45-day public review period is a CEQA requirement for the draft document. We have already exceeded that requirement.
Dr. Carol Armstrong  
March 27, 2007  
Page 7 of 7

2. Source: 2000 census data on Texas block groups, GeoInfo Network.
3. The DEIR/S left out two zip codes for the Taylor Yard Opportunity Area, zip codes 90031 and 90065, and questionably includes zip code 90206.
4. See generally GARCIA AND WHITI, supra, HEALTHY PARKS, SCHOOLS, AND COMMUNITIES: MAPPING GREEN ACCESS AND EQUITY FOR THE LOS ANGELES REGION, at B-12, 14-16.
6. 42 U.S.C. § 2000d (2004), 45 CRF 7.30 (nondiscrimination statement for recipients of federal funds from the Department of Interior, which has jurisdiction over National Parks and other public lands). See also Executive Order 12,834 on Environmental Justice (Feb. 11, 1994). The Equal Protection Clause of the Fourteenth Amendment to the United States Constitution also prohibits intentional discrimination. See also Section 1983 of the Civil Rights Act of 1871.
Comments

O-2-1: The Community Plan update process, which will follow the adoption of this Plan, will enable assessment of impacts on housing, loss of affordable housing, jobs, and will examine issues related to zoning modifications, gentrification, and preservation of community standards in terms of community stability and makeup. This is a stakeholder driven process that is best suited to gauge community support. The overall policy of this Plan is to encourage the retention and strengthening of stable residential areas, and to balance these with a long-term program to acquire properties for flood protection and River improvement. All measures, including inclusionary zoning, equitable distribution of benefits, and rent and job stabilization strategies would be available to the community as they take part in developing their Community Plan revisions. The Plan does not advocate net removal of any affordable housing without proper compensation, replacement, and if necessary, relocation assistance/compensation within the neighborhood per the policies of the City of Los Angeles. The City will also establish the Los Angeles River Special Project Office to facilitate Plan implementation. The 3-tiered governance structure recommended in the Plan would also provide opportunities to convene the kind of ongoing dialogue you are suggesting.

Responses

O-2-1: The Community Plan update process, which will follow the adoption of this Plan, will enable assessment of impacts on housing, loss of affordable housing, jobs, and will examine issues related to zoning modifications, gentrification, and preservation of community standards in terms of community stability and makeup. This is a stakeholder driven process that is best suited to gauge community support. The overall policy of this Plan is to encourage the retention and strengthening of stable residential areas, and to balance these with a long-term program to acquire properties for flood protection and River improvement. All measures, including inclusionary zoning, equitable distribution of benefits, and rent and job stabilization strategies would be available to the community as they take part in developing their Community Plan revisions. The Plan does not advocate net removal of any affordable housing without proper compensation, replacement, and if necessary, relocation assistance/compensation within the neighborhood per the policies of the City of Los Angeles. The City will also establish the Los Angeles River Special Project Office to facilitate Plan implementation. The 3-tiered governance structure recommended in the Plan would also provide opportunities to convene the kind of ongoing dialogue you are suggesting.
Comments

O-2-1
A staffed task force to pro-actively engage in a comprehensive examination of gentrification impacts of the Los Angeles River revitalization. This gentrification mitigation task force should include recognized, independent authorities with policy and community expertise from the fields of urban planning, low-income housing, economic development, and labor. Specific areas for task force action include research on effective gentrification mitigation measures and best management practices utilized elsewhere in the U.S. as well as recommendations regarding potential regulatory and policy options to complement anticipated planning and zoning efforts.

O-2-2
Resource Interface: Biological & Recreational. Audubon is pleased that the LARRMP holds the promise of significant improvements to both biological and recreational resources along the Los Angeles River corridor. We are equally concerned that there is, according to the DEIR/DPS, potential for adverse impacts on biological resources resulting from human-wildlife interactions. As a means to mitigate adverse impacts and equitably balance the needs for habitat and recreational improvements, Audubon recommends strategic and compatible placement of recreational amenities associated with the Los Angeles River revitalization. Areas with significant habitat potential should be left wild with public access restricted or, at most, paired with consistent passive recreation. Mixed-use and active recreation sites, including sportsfields, are compatible with areas having limited habitat restoration opportunities. In this way, active recreation sites would serve as important connectors between neighborhoods and the Los Angeles River corridor.

River Water Quality and Public Health. Audubon encourages public use of the land near the Los Angeles River. As such, we also recommend the development and implementation of related strategies and mechanisms to ensure the public’s health and safety, and the well-being of animals and plant life that habitat the River corridor. The water quality treatments recommended in the LARRMP offer limited explanation of how these treatments will positively impact water quality of the Los Angeles River. Our most serious concerns are about human contact with contaminated water and associated health risks such as gastrointestinal or ear, nose and throat infections. We recommend a fuller discussion about water quality and the public’s health in the DEIR/DPS and evidence-based mitigation measures to ensure water quality levels that allow for safe human contact consistent with the type activities along the River. At minimum, there should be proper signage in all relevant languages to advise the general public about the health risks associated with river water contact and water quality protection behavior.

General Habitat Considerations. We would like to preface our specific comments on habitat restoration with general recommendations in light of the massive environmental degradation resulting from the channelization of the Los Angeles River and the challenges of revitalization. First, it is imperative that no further net damage to habitat occur as revitalization projects are undertaken. Second, if genuine habitat restoration is possible in the designated Opportunity Areas, efforts should be concentrated on restoration of alluvial fan scrub and riparian woodland as these habitats types have been almost completely lost due to channelization and urbanization. Third, given that habitat restoration will be one of the most difficult environmental challenges of the revitalization of the Los Angeles River, both from a risk management and restoration standpoint, we recommend the creation of a habitat task force with oversight authority during the various construction and restoration projects and processes. We further recommend that this habitat task force be composed of independent, recognized experts in the field and that it be convened to oversee long-term, seasonal monitoring to complement construction efforts.

O-2-5
Keystone Species. Prior to channelization, the Los Angeles River supported a number of bird species that are now either extirpated entirely from the Los Angeles basin or are extremely rare in the few areas where suitable habitat remains. Two of these species are appropriately listed as “key species” in the LARRMP and DEIR/DPS: Loggerhead Shrike and California Quail. Both of these species no longer occur where they were once abundant and are solid choices of species that should be returned to the River pending successful revitalization.

O-2-6
Another “key species” listed in the reports is the Acorn Woodpecker. Because this bird has adapted fairly well to urbanization and can be found utilizing non-native palm trees for foraging and granary areas, we recommend that it be removed from the LARRMP and EIR.

O-2-7
We also recommend a number of other species be included as “key species” in the final LARRMP and DEIR/DPS reports since they serve as exemplary indicators of successful natural habitat restoration and include: Lesser Nighthawks; Bell’s Vireo; Cactus Wren; California Gnatchatcher; Swainson's Thrush; Yellow

Responses

O-2-2: Comment acknowledged. We concur.

O-2-3: Comment acknowledged. In the final PEIR/PEIS, language will be added to Section 4.5.8 (Mitigation Actions and Best Management Practices) regarding water quality, and to Section 4.11.2.1 (General Types of Impacts and Mitigation) regarding potential HTRW in the River Corridor.

O-2-4: Comment acknowledged. We concur. These kinds of specific oversight activities are expected to take place following Plan adoption.

O-2-5: Comment acknowledged.

O-2-6: Comment acknowledged.

O-2-7: Comment acknowledged.
O-2-7

These recommended “keystone” species should be prioritized in the five Opportunity Areas where native habitat restoration is proposed. It is important to note that all of these species are already resident in the Los Angeles River at a time when a closed creekbed serves a mosaic of natural habitats and the river itself was a dynamic element providing the conditions required by its resident plants and animals. Opportunity areas with wide expanses suitable for restoration would be ideal locations to re-establish the diversity of habitats once present historically and with them the diverse array of native wildlife that was forced into local extinction.

O-2-8

Shorebird Staging. While the DEIR/DEIS acknowledges the significance of the Los Angeles River for migratory shorebirds, it does not examine the potential negative impacts that construction-related changes to the flow rate/volume could inflict upon them. Shorebirds utilize the completely artificial channel in the Long Beach, which lies outside of the study area described in the LARRMP and DEIR/DEIS. From July through October, a thin film of algae and microorganisms coat the concrete on the river bottom and provide essential nourishment for the thousands of southbound-migrating shorebirds that stop there every day. We recommend a study of the conditions that these migratory birds rely upon for survival. We further recommend the development and implementation of a plan explicitly specifying how the flow rate/volume and water quality will be maintained during construction (within the study area) allowing these conditions (outside the study area) to remain consistent with what is typical at that particular time of year.

Surveys and Monitoring. As noted in the LARRMP and the DEIR/DEIS, the Los Angeles River is of vital importance for avian wildlife. The patches of riparian habitat bordering the river bottom through Sepulveda Basin and along Griffith Park to Taylor Yard host a number of breeding, migrating, and wintering aquatic and passerine birds. Sepulveda Basin also holds riparian habitat in land adjacent to the river making it not only important for birds, but also a significant location for recreational bird watchers. Moreover, outside of the revitalization study area, the concrete channel of the Los Angeles River in Long Beach supports tens of thousands of migrant shorebirds every year, as mentioned above.

O-2-9

The Los Angeles River revitalization plans and construction projects must be adequately and accurately informed of the bird species that may be impacted negatively both within the revitalization area as well as downstream, outside the study area. We therefore recommend a comprehensive survey of the entire Los Angeles River (mentioned only without specifics in the DEIR/DEIS) to determine the current usage by wildlife, including quantifying the reproductive success of birds along the river’s habitats (e.g. clutch size and number of young successfully fledged).

Concomitant to this initial survey work, long-term monitoring must accompany the construction both in the revitalization areas and downstream. Surveys must be conducted periodically throughout the year (and multiple times during the peak breeding and migration seasons September – April) as the species utilizing the Los Angeles River migrate in and out of the area. Additionally, a survey of the lower Los Angeles River shorebird staging area and the success of habitat restoration and mitigation in the revitalization zone, such as a monitoring scheme adds essential scientific merit to the entire project.

O-2-10

Native Plants. The Audubon recommends that all plant material chosen for restoration and landscaping purposes associated with the LARRMP, including the River Improvement Overlay district, conform to the Los Angeles River Master Plan Landscaping Guidelines and Plant Palettes. These native plants serve as essential habitat for local animal species, can provide thematic visual recognition of the River corridor, and conserve scarce water resources. Native landscaping associated with the LARRMP would greatly enhance the possibilities of habitat creation and mimic the natural communities that once occupied the Los Angeles River.

Complementary Conservation Opportunity: The Arroyo Seco. The Arroyo Seco Tributary of the Los Angeles River is considered by many scientific and environmental authorities to be an important conservation opportunity in the Los Angeles area. The significance of the Arroyo Seco and its Confluence with the Los Angeles River is acknowledged in the LARRMP through its identification as a potential Opportunity Area for...
The restoration of the Confluence and portions of Arroyo Seco in Los Angeles would add complementary value to the LARRMP and provide immediate and significant conservation outcomes. Conditions supporting such conservation efforts along the Arroyo include a large and supportive constituency, public ownership of much of the land situated near the Confluence, and conservation projects already underway or in the planning stages in the area.

Conservation and restoration efforts along the Arroyo would provide a unique opportunity to connect several areas of prime wildlife habitat. Together, the Arroyo Seco and the Los Angeles River connect the three largest parks in the City of Los Angeles—Griffith, Elysian and Debo—all of which have significant natural habitat areas. The Arroyo Seco bisects the Repetto Hills in Northeast Los Angeles where remaining undeveloped hillside open space provides further habitat conservation opportunities. North of the City boundary, the Arroyo is lined with nearly continuous open space leading to the Angeles National Forest. This level of connectivity is rare in highly urbanized areas and the creation of a more natural park at the Confluence coupled with restoration of the priority sites on the Arroyo and preservation of local hillsides would greatly enhance the possibilities for wildlife corridors along the Los Angeles River.

The Audubon is committed to partnering with the City of Los Angeles and other stakeholders on an independent effort to move forward an Arroyo revitalization process that would complement the work on the LARRMP. With such a possibility in mind, we would like to go on record recommending a minimum of new development along the Arroyo, water quality improvements, preservation of remaining hillsides in Northeast Los Angeles for wildlife habitat and, consistent with that, strategic and compatible placement of recreational amenities.

In closing, Audubon applauds the City of Los Angeles for the visionary work leading to the creation of the Los Angeles River Revitalization Master Plan. We appreciate the opportunity to provide these comments to the LARRMP and the DEIR/DEIS. Please feel free to contact me should you desire further background information on any of the comments herein. Thank you.

Sincerely,

Eva Yanez
Director
Audubon Center at Debo Park
4700 N. Griffin Ave.
Los Angeles, CA 90031
323-221-2255 ext. 11
eyanez@audubon.org
O-3-1: Comment acknowledged. Your comment has been passed on to the LARRMP planning team.

Carol Armstrong, LARRMP Project Manager
City of Los Angeles
Department of Public Works, Bureau of Engineering
1149 S. Broadway, Suite 600
Los Angeles, CA 90015

March 27, 2007

Ms. Armstrong:

The Chinatown Community Advisory Committee (CCAC), at its meeting of March 14, 2007, voted to support the L.A. River Revitalization Master Plan (LARRMP). The community is very interested in seeing the reclamation of the river, and the proposed adjacent opportunity nodes. In hopes of furthering this possibility, the CCAC requests that the Council District 1 and the City Planning Department develop a specific plan for the Chinatown Cornfields area. (See attached map page 6, 34 of LARRMP document).

Specifically, the CCAC approved a motion that stated “To balance development densities, which encourages higher density while generating resources for workforce, market rate and affordable housing, open space and streetscape improvements, pedestrian linkages, childcare and other community benefits. We recommend:

- T.F.A.R in the proposed specific plan
- New schools
- Medical service facilities
- Green transportation and public modes
- Encourage development while reducing parking and car requirements
- Encourage adaptive reuse of M zoned property to mixed-use or housing.

Best Regards,

Lillian Burkheim on behalf of the Chinatown Community Advisory Committee, (CCAC)
<table>
<thead>
<tr>
<th>Letter O-4</th>
<th>Comments</th>
<th>Responses</th>
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<tbody>
<tr>
<td>O-4-1</td>
<td>Please send confirmation that this is in Public Record of the Questions/Testimony at the last River Meeting at Casasqua Park High School. Please confirm integration of the LA County Riding and Hiking Trail with the Equestrian Trail Loops of the LA River Plan. Thank you, Dianne Domingo-Forate M.D. aka Dianne Lockhart Equestrian Trails Incorporated Board Member</td>
<td>O-4-1: This comment was discussed with the LARRMP planning team and has been confirmed.</td>
</tr>
</tbody>
</table>
Letter O-5

Comments

George Grace  
3864 Clayton Avenue  
Los Angeles, CA 90027  
323-660-2483  
gmrnet1.gmrnet.com

Responses

O-5-1: Comment acknowledged. Thank you.

Carol S. Armstrong, Project Manager  
Los Angeles River Revitalization Master Plan  
Department of Public Works  
1149 S. Broadway, Suite 600  
Los Angeles, CA 90015

Dear Ms. Armstrong,

Per my email, I have enclosed the Federal Highway Administration, Department of Transportation booklets "Critter Crossings - Linking Habitats and Reducing Roadkill", and "Keeping It Simple - Easy Ways to Help Wildlife Along Roads".

These are excellent, and illustrate what can be done to help wildlife "get to the other side of the road".

I hope you enjoy reading them.

Sincerely,

George Grace, Griffith Park Master Plan Working Group member
Letter O-6

Comments

HOMEOWNERS OF ENCINO

JERALD A. SILVER, PRESIDENT
P. O. BOX 260205
ENCINO, CA 91426-0205
818-990-2757

LOS ANGELES DEPT. OF PUBLIC WORKS

LOS ANGELES RIVER REVITALIZATION MASTER PLAN

RESPONSE TO

DRAFT PROGRAMMATIC ENVIRONMENTAL IMPACT REPORT/STATEMENT

State Clearinghouse No. 2006041050

JANUARY 29, 2007

(CEQA, SEC. 21000 et. seq. and GUIDELINES SEC. 15087)

RESPONSE to the Draft Programmatic Environmental Impact Report/Statement [PEIR/PEIS] for a project known as:

LOS ANGELES RIVER REVITALIZATION MASTER PLAN

The project will be located at:

The Los Angeles River flows approximately 52 miles from its origin in the San Fernando Valley region of the City of Los Angeles to Long Beach Harbor and the Pacific Ocean via Queensway Bay. The River runs east/southeastward through Los Angeles and along the cities of Burbank and Glendale in its northern reaches and then heads southward, flowing through the cities of Vernon, Commerce, Maywood, Bell, Bell Gardens, South Gate, Lynwood, Compton, Paramount, Carson, and Long Beach, respectively. The first 32 miles of the River, which comprise the LARRL\IP project area, flow through the City of Los Angeles, intersecting 10 Council Districts (Districts 3, 12, 6, 2, 5, 4, 13, 1, 9 and 14, respectively), approximately 20 Neighborhood Council areas, and 12 Community Plan areas as follows (in geographic order from north/northwest to south/southeast): 1) Canoga Park-Winnetka-Woodland Hills-West Hills; (2) Reseda-West Van Nuys; (3) Encino-Tarzana; (4) Van Nuys-North Sherman Oaks; (5) Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass; (6) North Hollywood Valley Village; (7) Hollywood; (8) Northeast Los Angeles; (9) Silver Lake-Echo Park; (10) Central City North; (11) Central City; and (12) Boyle Heights

The project applicant is:

LOS ANGELES DEPT. OF PUBLIC WORKS
Comments

1. HOMEOWNERS OF ENCINO, INC.

This Response is filed by the Homeowners of Encino, a Californian non-profit corporation duly organized and existing under the laws of the State of California. Homeowners of Encino is a public benefit association organized for the purpose of promoting social welfare. This corporation seeks to protect the residential character of its neighborhoods and to enhance the quality of life for its members and the community. Many of its members reside within the neighborhood of the proposed project, and will be heavily impacted by it.

II. DESCRIPTION OF PROJECT

The Los Angeles River Revitalization Master Plan (LARRMP) is intended to serve as a blueprint for implementing a variety of greening projects, including the development of parks and open space, pedestrian and bicycle trails, bridges, enhanced connector streets, channel modifications, ecological restoration, revitalized riverfront communities in key opportunity areas and recommendations for a River Improvement Overlay (RIO) district along the 32-mile stretch of the River within the City of Los Angeles.

Implementing LARRMP recommendations over the near-term planning period (5 to 20 years) and the long-term period (20 to 50 years) constitutes the proposed action evaluated in the draft PEIR/PEIS. The general project area includes approximately one-half mile on each side of the 32-mile River corridor that begins near Owensmouth Avenue in Canoga Park (at the confluence of Bell Creek and Arroyo Calabasas) and continues downstream to Washington Boulevard, near the northern boundary of the City of Vernon. The LARRMP provides recommendations in four broad categories: physical modifications to the River channel, open space development, multi-purpose revitalization in twenty opportunity areas with five described in greater detail—and River corridor governance and management.

The Plan intends to revitalize the general environment of the Los Angeles River by providing improved natural habitat, economic values, and water quality, as well as recreation, and open space amenities. The Plan area includes several locations where the potential exists for restoring a more natural riverine environment along the River, while maintaining and improving levels of flood protection. Creation of treatment wetlands in and around the River, to treat storm flows and to restore missing linkages of fragmented habitat, would also be pursued through LARRMP projects. Restored areas would provide natural riparian habitat to support indigenous wildlife and avifauna along a corridor transecting most of the San Fernando Valley, and extending into downtown Los Angeles. Other LARRMP purposes include the provision of improved public access to the River and reinvestment in the urban system that results in economic growth. The City’s LARRMP proposes continued collaboration with both Los Angeles County and the Corps on Plan implementation issues, such as access, maintenance, and public safety, through establishment of a participatory River Authority.

The proposed project affects transportation, earth, air, water, plant life, population, energy, utilities, land use, and other environmental elements in Encino, land
O-6-1: Comment acknowledged. It is important to reiterate that this PEIR/PEIS is programmatic, and evaluates “concept-level” planning in the LARRMP, based on available information. No resource-specific surveys or studies have been undertaken for this programmatic PEIR/PEIS, and these types of studies can be expected to accompany project-level environmental analyses that will be required under CEQA and NEPA. On this basis, the PEIR/PEIS has discussed the likely potential impacts on 16 resource areas that would likely be associated with future specific projects that may be proposed to implementation of the LARRMP concepts for channel modifications and open space developments within the River Corridor and the five opportunity areas. The evaluations in this PEIR/PEIS have concluded that significant impacts are possible for aspects of 10 of the 16 resource areas addressed. It is anticipated that individual project-specific studies, surveys and evaluations will determine the significance of impacts on particular resource areas.

O-6-2: Comment acknowledged. Please also see previous response. Discussions of cumulative impacts presented in the PEIR/PEIS are adequate for this evaluation of the concept-level of planning in the LARRMP. More in-depth evaluations of cumulative impacts can be anticipated at the project-level CEQA and NEPA environmental analyses that will accompany future implementation of specific projects. It can also be expected that project-specific mitigation measures will be identified that may be considered going beyond those identified in this concept-level programmatic PEIR/PEIS.

O-6-3: Comment acknowledged. The excellent recommendations in your comment are best directed to future project-specific environmental evaluations that will be required under CEQA and NEPA as projects are proposed in particular locations within the River Corridor. The information provided in this PEIR/PEIS for these resources is sufficient for this programmatic concept-level evaluation of the LARRMP.
Comments

O-6-3: Comment acknowledged. Please refer to previous response to Comment O-6-3.

O-6-4: Comment acknowledged. Please refer to previous response to Comment O-6-3.

The LARRMP will be in compliance with regional policies and agreements, standards and guidelines set by the Air Quality Management Plan and by SCAG projections, and commitments made in the Integrated Resources Plan, which the LARRMP and this PEIR/PEIS have incorporated by reference.

Responses

O-6-4: Comment acknowledged. Please refer to previous response to Comment O-6-3.

O-6-5: Comment acknowledged. Please refer to previous response to Comment O-6-3.

The LARRMP will be in compliance with regional policies and agreements, standards and guidelines set by the Air Quality Management Plan and by SCAG projections, and commitments made in the Integrated Resources Plan, which the LARRMP and this PEIR/PEIS have incorporated by reference.
Comments

O-6-5

construction. Provide a detailed list of mitigations to reduce the consumption of water to insignificance.

O-6-6

If reclaimed sewage water is to be used for dust control, the effects of misting and airborne transfer of viruses should be analyzed and reported. Include the factors, formulas and computations used to arrive at these impacts, and their mitigations. Provide an appendix with all necessary and supporting documentation, including the paper trail that will allow concerned citizens, or decision makers to trace your steps, and your conclusions with regard to water impacts.

O-6-6: Comment acknowledged. Please refer to previous response to Comment O-6-3.

The information provided in this PEIR/PEIS for these resources is sufficient for this programmatic concept-level evaluation of the LARRMP. It has been concluded that potential impacts to biological resources at the project level can be reduced to less than significant levels with mitigation identified in this document and supplemented by future mitigation that may be required for individual projects.

O-6-7: Comment acknowledged. Please refer to previous responses to Comments O-6-3 and O-6-6.

The LARRMP will be in compliance with local and regional noise policies, standards and guidelines.

O-6-8: Comment acknowledged. Please refer to previous response to Comment O-6-3.

O-6-7

A project of this size may have a detrimental effect upon the flora and fauna in the project area. The area is a natural habitat for birds and other animals. It will not be possible to construct the project, without a serious impact on the local biota. Provide a detailed assessment of impacts on both plant and animal life as a result of the project. Also provide detailed mitigations to reduce these potential impacts to insignificance.

O-6-8: Comment acknowledged. Please refer to previous response to Comment O-6-3.

O-6-7

The final PEIR/PEIS should explain the effects of noise levels on local residents and construction workers, during construction, and the impact on the emotional and physiological well being of people living nearby. Please explain in detail the effects of specific pieces of construction equipment, the noise levels, diurnal frequency and duration of sound that people will be exposed to. Also explain the impact of sustained noise upon the aged or those who are ill and may reside near the construction site. The final PEIR/PEIS should provide mitigation measures that will reduce the noise created by this project to insignificance.

O-6-8

IX. LIGHT AND GLARE IMPACTS

Light and glare was not adequately assessed in the draft PEIR/PEIS. Residents living near the construction sites will be subjected to light and glare. The applicant must be required to illuminate the premises without casting light and glare on nearby buildings. Any buildings located adjacent to the entertainment venues will be directly impacted. The light and glare that will spill onto nearby buildings must be mitigated in the final PEIR/PEIS. The construction project will result in altered shade and shadow conditions which should also be mitigated to insignificance in the final PEIR/PEIS.
**Comments**

**X. CHANGES IN POPULATION**

Changes in population will occur if this project is approved. It will alter the distribution, density and growth rate in the region. Providing more buildings, jobs and employment in this region will make it more difficult to achieve a balance between the environment and the population. It may cause greater population density in a regional ready without adequate infrastructure. In your final PEIR/PEIS, please show how the project adheres to the job/housing balance. Provide a detailed assessment of the growth and job impacts. What kinds and types of jobs will be created, as a result of this project. Analyze the effects on unemployment on individuals with various job skills. Also explore what housing is available to accommodate any increase in direct and indirect employment.

**XI. HOUSING IMPACTS**

The project will raise land prices, and drive out affordable housing or small business in the area. The final PEIR/PEIS should mitigate the number of low- to moderate housing units that will be impacted due to the project. The final PEIR/PEIS should explain how the loss of affordable housing stock will be replenished. It should also show the impact on nearby small retail and consumer serving shops and businesses.

**XII. TRAFFIC AND CIRCULATION**

Transportation and traffic circulation will be negatively impacted by the proposed project. There are a number of E and F level intersections in the vicinity of the project. The construction of this project and removal of large amount of soil over city streets will impede traffic and circulation and make gridlock worse. The final PEIR/PEIS should explain how the E and F level, gridlocked intersections in the area will be mitigated to insignificance.

Because of the project's magnitude and the substantial construction required, the proposed project will generate significant traffic congestion problems. Traffic congestion resulting from the expansion of freeways and access roads, lane closures, detours, slow moving construction vehicles and equipment, project personnel commutes, etc. significantly increase traffic and mobile-source air emissions. Please provide detailed maps in the final PEIR/PEIS which will show how the project will mitigate traffic in the area, including the number of lanes of traffic that will be lost due to the movement of heavy equipment to and from the site during construction.

Since the project has corridor level transportation impacts, what are the long term impacts? Estimate the number of trips generated, and provide documentation on the assumptions. How will the project affect public transportation in the region, and locally? What will the impact be on nearby freeways and will it encourage the need to double deck freeways. This project will have a mutual impact on other projects in the area. Explain in the final PEIR/PEIS the interactive impacts on the existing circulation system, on ATSAC, and the secondary highways. Explain thoroughly how you arrive at trip generation rates, trip distributions, time of day analysis, effects on A.M. and P.M. traffic conditions, etc.

**Responses**

O-6-9: Comment acknowledged. The LARRMP will be in compliance with regional policies and consistent with SCAG population projections. Population increases projected in future LARRMP projects will be kept within SCAG projections, and will be determined through community interactive planning processes. See responses to Comments L-9-1 to L-9-27. See also response to Comment O-6-3.

O-6-10: The project area has already registered raises in land prices and has put a strain on the affordable housing and small business sectors. The LARRMP recognizes the need to update existing Community Plans in river-adjacent areas through an extensive and inclusive community involvement process to ensure that LARRMP benefits are as equitably distributed as possible. That Community Plan update process will enable assessment of impacts on housing, loss of affordable housing, jobs, as well as on issues related to zoning modifications, gentrification, and preservation of community standards in terms of community stability and makeup. This is a stakeholder driven process that is best suitable to gauge community support. The overall policy of the Plan is to encourage the retention and strengthening of stable residential areas, and to balance this with a long-term program to acquire properties for flood protection and river improvement.

O-6-11: The LARRMP acknowledges and reflects the importance of public transportation and mass transit as a means of making the River-related parks and recreational areas more accessible to the general public. In addition, non-motorized transportation, such use of bike trails and paths, are a key element of the transportation component of this plan.
O-6-11: The final PEIR/PEIS should deal with the phasing issue comprehensively. What will be the incremental impacts on traffic, and if phased, how will the infrastructure be phased so that all mitigations are in place to prevent increases in traffic or a degradation of circulation.

O-6-12: Comment acknowledged. Please refer to previous response to Comment O-6-3. As future LARRMP projects move toward implementation in particular locations, specific project-level impacts on public services will be evaluated. The LARRMP-recommended Joint Powers Authority is expected to result in streamlined, more efficient public service provision within the river corridor and to provide advice and appropriate recommendations for specific areas and issues.

O-6-13: Comment acknowledged. Please refer to previous response to Comment O-6-3. The LARRMP is fully in compliance with the Integrated Resources Plan, which the LARRMP and this PEIR/PEIS have incorporated by reference.
Comments

O-6-13

Already the law. Your final PEIR/PEIS should impose more extensive measures to deal with the sewage flow issue. Include the factors, formulas and computations used to arrive at these impacts, and their mitigations.

O-6-14

XV. FLOOD CONTROL IMPACTS

Some residents living near the sites presently are impacted by the 100 year flood along the banks of the Los Angeles River. Any significant changes to the configuration of the river bed could have a catastrophic effect on residents living in Sherman Oaks, or other areas near the river.

Any changes, improvements or modifications to the current river design must not restrict river flow, or its capacity to handle water runoff. Constructing projects near the river could also create flooding problems for the recreational venues that are proposed. The PEIR/PEIS does not fully address this issue. It must be explored in far more detail that presently presented in the draft.

O-6-15

XVI. GROWTH INDUCING IMPACTS

The final PEIR/PEIS should discuss properly the growth inducing impacts of the project and the environmental effects, and must be adequate under CEQA, Pub. Res. Code, Sec. 21000 et seq. Please include a detailed forecast of growth for each phase of the project, if phased. What will be the cumulative impacts of growth in the region? How is this related to the Growth Management Plan forecast, at the expected date of project or phase completion? In Laurel Heights Improvement Assoc. of San Francisco, Inc. v. Regents of the University of California (88 Daily Journal D.A.R.15037), the California Supreme Courts laid down clear guidelines and requirements for the preparation of an environmental document.

Please be sure the final PEIR/PEIS properly addresses and mitigates growth inducing impacts which will have individually limited, but cumulatively considerable impact. A final PEIR/PEIS must be prepared which gives thoughtful discussion to dealing with short-term versus long term effects.

O-6-16

XVII. NO PROJECT ALTERNATIVE

The importance of alternatives in the PEIR/PEIS process is clearly established in law. CEQA Sec. 21081 requires a finding of infeasibility for each environmentally superior project alternative in the PEIR/PEIS prior to approval of any project which will result in significant adverse environmental effects. It will be essential that the final PEIR/PEIS make a full assessment of the impacts of alternatives, including a thorough discussion of a No Project alternative. (Citizens of Goleta Valley, 89 Daily Journal D.A.R. 11920) The No Project alternative is especially important since the project is located in the center of a polluted ecosystem with degraded air, water and earth. This alternative should consider not constructing the project, or shifting it elsewhere and thus reducing the demands on the infrastructure.

The lead agency is required to make a finding, supported by substantial evidence that the “no project” alternative is infeasible. You should be aware of this requirement in the preparation of the final PEIR/PEIS. Pub. Res. Code Secs. 21002 and 21002.1(b).

Responses

O-6-14: Comment acknowledged. All future LARRMP projects will preserve or enhance the existing hydrology and hydraulics of the River required for adequate flood management. Both the County and Corps of Engineers will be involved in reviewing any design proposals involving channel modifications. Please also refer to the response to Comment O-6-3.

O-6-15: Comment acknowledged. The LARRMP, although it discusses a phased-approach to River revitalization (e.g., through “top down” greening in stages over time), it is not intended to be implemented in discrete phases because it is a vision document only. Next steps toward LARRMP implementation will involve individual projects and community-based proposals under the guidance of, and in compliance with, regional policies and consistent with SCAG population projections. Population increases projected in future LARRMP projects will be kept within SCAG projections. Proposed channel modifications—such concrete removal—cannot take place before the U.S. Army Corps of Engineers’ Los Angeles River Ecosystem Restoration Feasibility Study is completed.

O-6-16: This PEIR/PEIS is a vision document which includes concept level discussion of issues, policies, options, and alternatives. CEQA Guidelines section 15168, which governs use and content of program EIRs, states that a program EIR is used in connection with the issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program. One can present this PEIR/PEIS as a “first-tier” EIR that has enough analysis to give the reader “the big picture.” The formulation of details regarding site-specific issues can be deferred until preparation of later project EIRs or negative declarations. Consequently, the document focuses on broad policy alternatives, program-wide mitigation measures, regional influences, and cumulative impacts applying to the program as a whole, per CEQA Guidelines Section 15168(b)(4), (d)(2). The intent is to adopt performance standards or objectives (e.g., no net loss of flood control capacity) that can be trans-
O-6-16 (cont.): into site-specific mitigation measures when future site-specific CEQA analysis is prepared.

Section 2.6.1 of the PEIR/PEIS starts the analysis of various alternative options, while Section 2.6.2 discusses the No Project alternative. The No-Project alternative will not be able to meet the goals and objectives of the LARRMP as expressed by the City Council’s Ad Hoc Committee on the Los Angeles River. Since the project alternatives discussed in Section 2.6.1 meet the project’s goals and objectives, it is too early to evaluate the environmentally-superior alternative at this first-tier level. This evaluation will have to be done in subsequent environmental documents.

The Findings and Statement of Overriding Considerations is prepared for consideration by the City Council.
PUBLIC COMMENTS AND RESPONSES

O-6-16

The environmental document for the project is programmatic in nature. Specifics concerning land use characteristics will be addressed in project-level environmental analyses as well as the community planning efforts (Community Plan updates, initiation of specific plans, and the RIO), which will take place subsequent to Master Plan adoption. See Chapters 8 and 10 of the LARRMP for more information.

O-6-17

Where the project, as approved, will result in significant environmental impacts, the agency must make the finding, pursuant to Sec. 21081(c) [Guidelines Sec. 15061(a)(3)] that each environmentally superior alternative to the project proposed in the PEIR/PEIS but rejected by the agency is infeasible for specific economic, social, technical or other reasons. Village Laguna, 134 Cal.App.3d 1022, 1034-1036. The findings must also expressly identify the "specific economic, social or other considerations" relied upon by the agency in determining that the alternative is infeasible. Id. at 1034-1036.

O-6-18

Comment acknowledged.

XVIII.

ALCOHOLIC BEVERAGE LICENSE REQUIREMENTS

The need for Conditional Use Permits (CUPs) related to the operation of the restaurants, and other entertainment venues must be addressed in the final PEIR/PEIS. In Friends of Mammoth v. Board of Supervisors of Mono County (1972) 8 Cal.3d 247, 262, the Supreme Court held the term "project" included not only government-initiated actions, but also "permits, leases, and other entitlements." This was codified under CEQA in Section 21065. The final PEIR/PEIS should explore the permits, liquor licenses and other entitlements related to restaurant operations. Since 1939 the number of retail liquor licenses has been limited. At present, the ratio is one on-sale general license for each 2,000 persons in the county, and one off-sale general license for each 2,500 persons. (See Business and Professions Code, Sec. 23000, et. seq.) The final PEIR/PEIS should analyze this issue and report on the number of Conditional Use Permits in the area, and whether ABC limits have been reached or exceeded. Failure to address this matter in the final PEIR/PEIS may mean that a CUP may not be granted later.

XIX.

NO STATEMENT OF OVERRIDING CONSIDERATION SHOULD BE ISSUED BY THE LEAD AGENCY

We ask that the lead agency prepare a final PEIR/PEIS that interprets CEQA to afford the fullest possible protection for the environment within the reasonable scope of the statutory language. (Friends of Mammoth v. Board of Supervisors [1972] 8 Cal.3d 247) We request the lead agency require additional changes and alterations in the project to avoid and substantially lessen the significant impacts that have been reported in the DPEIR/PEIS, satisfying the requirements of CEQA Section 21001.

F-90
O-6-19: Comment acknowledged. Future projects resulting from the LARRMP, should it be adopted, would comply with CEQA and all prevailing, applicable environmental regulations.

**Comments**

**XX.**

**REQUIREMENT FOR ON-GOING PUBLIC INPUT**

Due to the size and scope of this project it is recommended that an on-going public input requirement be established. The final PEIR/PEIS should require that the applicant establish a list of, and hold quarterly public meetings with its residential neighbors (within 5000 feet) to discuss in a timely fashion issues of concern regarding the project’s activities. The applicant should be required to bring to the community’s attention any negative impacts, including any violations of conditions, permits, monitoring programs or other controls that relate to the project. The applicant shall submit a copy of the meeting notice and a list of notified persons to the Council office, and other city agencies, as ongoing evidence of compliance.

**XXI.**

We appreciate your allowing us the opportunity to comment on the draft PEIR/PEIS. We look forward to receiving a detailed and comprehensive final PEIR/PEIS, fully in compliance with Federal, NEPA, CEQA, State and local Guidelines.

Executed at Encino, California on March 16, 2007

by Gerald A. Silver,
President, Homeowners of Encino.

Gerald A. Silver

**Responses**

O-6-19: Comment acknowledged. Future projects resulting from the LARRMP, should it be adopted, would comply with CEQA and all prevailing, applicable environmental regulations.
March 27, 2007

Carol Armstrong, LARRMP Project Manager
City of Los Angeles
Department of Public Works, Bureau of Engineering
1140 S. Broadway, Suite 620
Los Angeles, CA 90015

RE: Response letter – Los Angeles River Revitalization Master Plan

Dear Ms. Armstrong:

We are pleased to comment on the Los Angeles River Revitalization Master Plan (LARRMP) and EI/EIS. The Los Angeles & San Gabriel Rivers Watershed Council is a 501(c)(3) non-profit organization whose mission is to facilitate an inclusive consensus process with our stakeholders to preserve, restore, and enhance the economic, social, and ecological health of the Los Angeles and San Gabriel Rivers Watershed through education, research, and planning. The project is summarized in the LARRMP with its impacts described in the EI/EIS.

The Watershed Council applauds the concept for revitalization as well as the public process the Plan has undergone. We are excited that the City is discussing concepts such as greening with native plants, reconnecting the public to the River, education, bikeways, and stormwater infiltration are laudable.

The attached comments have neither been reviewed nor adopted by the Board of Directors of the Watershed Council, but are based on staff’s review of the Plan. The Watershed Council officially requests a copy of future environmental documents that will be prepared under this plan and EI/EIS pursuant to the California Environmental Quality Act and the National Environmental Policy Act. Please direct any questions and documents to Nancy L.C. Steele, Executive Director, at (213) 229-9950.

Sincerely,

Nancy L.C. Steele, D.Env.
Executive Director

Disclaimer:
The Watershed Council, in expressing support for projects and proposals consistent with its mission and vision, does not evaluate or rank competing proposals relative to one another. The Council’s determination that a proposal is consistent with its mission and vision and worthy of support does not imply that individual agencies and organizations represented by the Council also support, or have reviewed, the proposal.

The Los Angeles & San Gabriel Rivers Watershed Council
700 N. Alameda Street, Los Angeles, CA 90012 T 213/ 229-9945 F 213/ 229-9952
GENERAL COMMENTS:

We applaud the inclusion of the Landscaping Guidelines and Plant Palettes in the Plan, and highly recommend that the City of Los Angeles formally adopt the Guidelines developed for the Los Angeles River, as has the County of Los Angeles. Aside from their habitat value, the Plant Palettes were specifically chosen to reflect the sense of place here in Los Angeles as well as those that can survive within the rainfall typical for Los Angeles. With the concerns regarding future water supply, we feel these plant selections have the best chance to not only survive but also thrive within these public landscapes. Two central aspects of the Guidelines are the partnership between restoration ecologists and landscape architects and the use of indigenous plants material for revegetation projects.

Ecological Restoration:

We are concerned with the use of ecological restoration as a term and a goal. Discussing ecological restoration within a 25-year time frame is overreaching conceptually as true restoration may take the better part of a century to achieve even most of the functions of a riparian system. The goal may more accurately be stated "restoring partial ecological functioning" to a highly damaged river in order to phase to full ecological restoration.

We do not feel it is appropriate to simply redefine ecological restoration to fit the current planning process. Redefining an ecological concept confuses a public that is not scientifically savvy and is educationally unsound. The Landscaping Guidelines and Plant Palettes do not mention ecological restoration at all because they are not aiming to restore all the functions of a riparian system. Instead the Guidelines uses 'revegetation' and specifically refers to the use of locally native plants (within the LA River watershed) that produce beautiful, functional public spaces that produce genuine opportunities for wildlife as well as using substantially less (or no) water following plant establishment. Turf grass with trimmed up trees on concrete terraces within a concrete channel may provide some habitat value for opportunistic wildlife species but does not constitute habitat for wildlife across all biological resources (insects to bats, lizards to amphibians, mammals and fish). In order to gain a visual image of riparian systems, a visit to an intact system in the Los Angeles River, such as Brown and Mormon Canyons, is well worth the trip. If the Ad Hoc River Committee is interested, we would be willing to schedule a time to visit the area with them.

This Plan is proposing something different from restoration, and the appropriate term is revitalization. Revitalization conveys the energy and vitality the City wishes to reintroduce into a damaged river channel system; to reintroduce the people of Los Angeles to an undervalued component of this City. Re-envisioning the River and creating support and political will for changes to it is an important step to eventual ecological restoration, which would require, in all likelihood, concrete removal.

Functional Capacity:

Instead, the City might consider focusing its Section 404 discussion on functional capacity. "Functional capacity is defined as the degree to which an area of wetland performs a specific function. . . . (and) refers to the ability of a wetland area to perform a single function and not the
O-7-2: Comment acknowledged. The recommendations in your comment are best directed to future project-specific environmental evaluations that will be required under CEQA and NEPA if projects are proposed in the locations you describe within the River Corridor. It is important to reiterate that this PEIR/PEIS is programmatic, and evaluates “concept-level” planning in the LARRMP, based on available information. No resource-specific surveys or studies have been undertaken for this programmatic PEIR/PEIS, and these types of studies are expected to accompany project-level environmental analyses that will be required under CEQA and NEPA. The information provided in this PEIR/PEIS for these resources is sufficient for this programmatic concept-level evaluation of the LARRMP. It is anticipated that individual project-specific studies, surveys and evaluations will determine the significance of impacts on biological resources in a particular project area.

O-7-3: Comment acknowledged. Your comment has been shared with the LARRMP planning team.

O-7-4: The LARRMP does not advocate the taking of homes and businesses—it is a vision document that suggests how river-adjacent change might take place in response to river improvements. Gentrification is an important issue not only in the river corridor, but in the region generally—one that can best be addressed in a comprehensive, open, and transparent process—through community planning and through the work of the LARRMP-proposed 3-tiered management structure. As you know, the LARRMP project area has already experienced increases in land prices and a strain on the affordable housing and small business sectors.

The Plan recognizes the need to update existing Community Plans in river-adjacent areas through an extensive and inclusive community involvement process. That Community Plan update process will enable assessment of impacts on housing, loss of affordable housing, jobs, as well as on issues related to zoning modifications, gentrification, and preservation of community

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O-7-4 (cont.): standards in terms of community stability and makeup. This is a stakeholder driven process that is best suited to gauge community support. The overall policy of this Plan is to encourage the retention and strengthening of stable residential areas, and to balance these with a long-term program to acquire properties for flood protection and River improvements. All measures, including inclusionary zoning, equitable distribution of benefits, and rent and job stabilization strategies, would be available to the community as they take part in developing their Community Plan revisions. The Plan does not suggest the net removal of any affordable housing, but recognizes that should a decision be made to do this in the future, it should include proper compensation, replacement, and if necessary, relocation assistance/compensation within the neighborhood per the policies of the City of Los Angeles Housing Authority.

No eminent domain will be used without triggering the California Environmental Quality Act in subsequent phases of this project. This means that the public will have full knowledge and opportunity to comment on any future project component that involves eminent domain. Both the RIO district creation and the Community Plan revisions will ensure future stakeholder input per City of Los Angeles procedures and policies.
Recommendation 4.3: Same comment and we agree—incidental stormwater treatment does not qualify for compliance with TMDL requirements. We are concerned about private developers using the channel (a public resource) for stormwater treatment to meet SUSMPs rather than starting at source control and then neighborhood-level solutions.

p. 4-15: Recommendation 4.9: The rubber dams used in the San Gabriel River and in the Santa Ana River are not used as recreational facilities but are solely linked to surface water detention for groundwater infiltration. Important questions include: How long would these rubber dams be in place at any one time? How much energy will it take to treat the water if it is held for any length of time at all? Will body contact be allowed? If not, is the City willing to police the ponded area to prevent intrusion? Who will pay for the policing? Will pesticides be used to treat for West Nile Virus? How will the public be notified? Since at least some of the waterway is impaired, won’t impaired water be flowing into the ponded areas? Who will pay for the energy? How will this interfere with recovery of anadromous fish?

p. 4-17: Recommendation 4.11: Invasive species are an increasing problem in Los Angeles. We strongly recommend that no invasive species be used for “greening retaining and sound walls,” or anywhere in any plantings. Already at the Compton Creek confluence, for example, cat’s claw vine (MacFadyena unguis-cati) is problematic as it is uncontrolled, flows over the levee and down the trapezoidal channel wall. Seeds from this vine spread easily downstream where they’ll lodge then need to be removed with pesticides, which is counterproductive from a water quality perspective. We recommend that all proposed plant lists comply with the Landscaping Guidelines. In addition to the Landscaping Guidelines, the Watershed Council has information on its web site, [www.theprofileweb.com](http://www.theprofileweb.com), that can assist landscape designers and restoration ecologists with an appropriate list of vines and other plants.

p. 4-20: Recommendation 4.13: Create a continuous functional riparian corridor that provides habitat for birds, mammals, and fish within the channel bottom. This recommendation should be broadened to include invertebrates, amphibians, bats, and reptiles. Insects in particular are often the bottom of the food chain for fish and birds (that are not plant eaters) and their absence would prevent establishment of charismatic animals.

p. R-5: Please note that the citation for the Guidelines should read:
Letter O-8

Comments

From: garygeo@lavaudubon.org
Sent: Monday, March 26, 2007 2:59 PM
To: engpreps@ctty.org
Cc: garygeo@lavaudubon.org
Subject: LA River RMP Site - Comment on EIR/EIS

Comment Type: Comment on EIR/EIS
Subject: LA AUDUBON Comments on Master Plan & EIR/EIS

Comment:
March 16, 2007

Dr. Carol Armstrong
City of Los Angeles
1149 S. Broadway St., Suite 600
Los Angeles, CA 90015

Re: January 2007 draft of the Los Angeles River Revitalization Master Plan
Draft Programmatic Environmental Impact Report/Programmatic Environmental Impact Statement

Dear Dr. Armstrong:

Los Angeles Audubon is a California tax-exempt 501 (c)(3) non-profit corporation. We are one of the almost 500 chapters of Audubon in the Americas, and have been serving the Los Angeles area since 1910. The mission of Los Angeles Audubon is to promote the enjoyment and protection of birds and other wildlife through recreation, education, conservation and restoration.

We have participated from the beginning in the stakeholder process to create the January 2007 draft of the Los Angeles River Revitalization Master Plan. Our involvement in and enjoyment of the natural history of the River, in its natural and channelized states, began with the formation of our organization in 1910.

We appreciate the opportunity to comment on the above mentioned documents and thank the City of Los Angeles, especially to Councilmember Ed Reyes, for the courageous leadership in this historic and powerful project which will not only revitalize our river but more importantly our community and our sense of natural place.

1. The MASTER PLAN is deficient in describing the re-vegetation or “landscaping” process.

While we acknowledge that the intention of the River revitalization is not to restore native habitat to the levels of 1938 before channelization, and that the intention of the revitalization is to bring relief to all the citizens of Los Angeles area especially the communities along the river, and that active recreation, parklands, and commercial development are essential to the LA River revitalization, we do not see how the stated goals of “improving the environmental problems of the River” or “improving natural habitats” can be accomplished without the use of California native vegetation. Since your MASTER PLAN document will serve as a programmatic information component and your programmatic EIR will serve as a technical document on the revitalization, and will be referred to by any and all agencies, developers, planners and other interests in the revitalization of the River over the next few decades, we ask that the Master Plan and the EIR both commit in writing to the use of “California native vegetation appropriate to the Los Angeles River floodplains” or similar technical term to set a guideline or standard to all landscaping choices, and discourage or ban the use...
O-8-2: Comment acknowledged. It is important to reiterate that this PEIR/PEIS is programmatic, and evaluates “concept-level” planning in the LARRMP, based on available information. No resource-specific surveys or studies have been undertaken for this programmatic PEIR/PEIS, and these types of studies can be expected to accompany project-level environmental analyses that will be required under CEQA and NEPA. It is anticipated that individual project-specific studies, surveys and evaluations will determine the significance of impacts on particular resource areas. The excellent recommendations in your comment are best directed to future project-specific environmental evaluations that will be required under CEQA and NEPA as implementation projects are proposed in particular locations within the River Corridor. Also, your input should be shared during development of the RIO district guidelines, subsequent to Plan adoption.

All LARRMP-related specific projects will be implemented with subsequent environmental review that would analyze impacts downstream. Specific measures will be taken at that time to prevent, minimize or avoid adverse downstream impacts.
Creek, Little Tujunga Creek, etc) and downstream of the river.

O-8-2

By considering only currently endangered or threatened species the DEIR seems to attempt to relieve the City or permitting agency from any responsibility under CEQA or NEPA to disclose or mitigate for the impacts on other avian species that depend on or use the river, that may become endangered or threatened over the twenty or more years that the project will take, or consider the impacts of the deconstruction, construction or other actions that the revitalization project will have on habitats and wildlife upstream or downstream of the river revitalization project.

For instance, the Lower Los Angeles River through Long Beach, Compton and Paramount is one of the most important shorebird stopover sites in Southern California. This 7 mile stretch is one of the over 150 Important Bird Areas of Audubon California even though it is a concrete channel. “During the summer, a thin sheet of treated wastewater forms in the river channel, and becomes rich with algae and micro-invertebrates. Although this is a totally human-made environment, it has replaced formerly extensive shorebird habitats once present in the vast marshes along the coast of the Los Angeles Basin (e.g. Long Beach/Wilmington).” Between 8,000 and 15,000 shorebirds per day have been recorded, and more than two dozen species of sandpipers and plovers. The importance of this site has been acknowledged by the California Coastal Conservancy in 2000, and by the Bureau of Reclamation in 2004, but not by this DEIR. The Master Plan and the DEIR must acknowledge the importance of the habitat values of the Lower Los Angeles River, state the need to preserve them, and ensure that proper flows for shorebirds during the late spring through fall months (until the start of the rainy season) during and after the river revitalization shall be shallow but sufficient to cover significant areas outside of the low-flow channel in the center of the river bed as too much or too little water downstream during these months can greatly reduce the habitat value for shorebirds.

For another instance, Los Angeles Audubon and others have created the Sepulveda Basin Wildlife Center over the last more than twenty years as a result of litigation against polluters. The re-vegetation is acknowledged as riparian habitat in the DEIR, and has become an important wildlife area and passive recreation area that is used by wildlife no longer found in most areas of Los Angeles. This habitat is important for birds as well as providing education and passive recreation opportunities for Angelenos although as yet no endangered or threatened species nest on the site. The DEIR fails to address the impacts to this habitat by the project.

We look forward to working together with the City of Los Angeles on the revitalization of the Los Angeles River.

Respectfully submitted,

Garry George
Executive Director
Los Angeles Audubon
Letter O-9

From: Lupe Vela
To: Carol Armstrong, Claire Bowlin, trothman@lascity.org
Date: 3/1/2007 5:22:43 PM
Subject: Fwd: some thoughts for the River plan

please add to comments.

>>> Gerald Gubaten 3/1/2007 5:18 PM >>>
Kim Benjamin represents an investor fund which owns property in Chinatown. He is also pres of the BID. See his comments below. (I haven't read the voluminous 10-point text he has forwarded to our office).

>>> "Kim Benjamin" <kim@laerce.com> 3/1/2007 9:05 AM >>>

I would like to have these ideas considered for inclusion into the new specific plan being created for the River Project and specifically for the Nodes to be created around Chinatown and the Arts District between Broadway bridge north of Chinatown down to the 4th street bridge in the Art District (these thoughts are in no particular order):

O-9-1
1) M zoning restrictions for change in use should be eliminated to encourage development of mixed use and housing and other commercial property
2) TFAR should be implemented within the specific plan being defined to encourage same.
3) Special density and FAR bonus incentive should be provided such that the entire area is zoned 3 to 1 FAR to begin with, then add to this these options to be elected by developer: (i) anyone dedicating 20% of their total square footage and units (i.e. 20,000 feet and 20 units out of 100 unit 100,000 foot apartment or condo building) to workforce housing defined at 110% of AMI or for seniors 55 or older, will be allowed to increase their FAR and Density by 50% and will have their parking requirements dropped to 1.25 slot per unit; or (ii) anyone dedicating 30% of their square footage and units to same standards will be allowed to double their FAR and density and will have their parking requirements dropped to 3/4 slots of one parking space per unit built;
4) we should not allow any cars to drive within 50 feet of either side of the river... we need set backs and way so not creative connections to community... so lets terrace the area to the river along
5) we need to create school and health care zones as well to encourage building of same. we should require per the plan that a middle an elementary school be built within 2 years of passing this specific plan, and that a hospital or out patient care facility be built as well for public access and use,
6) if you can pick up the existing train lines that separate the community form access to the river... these need to be moved or dropped below grade and built over so that the community we are creating is not walled off so to speak from the very river / community resource we want to access... THIS IS CRITICAL
7) we should create pedestrian and public safety zones such that we install good lighting with benches and street art (such as bronzes and also walks of fame to commemorate the great history of the river and its
O-9-8

impact in the area (Angel’s Walk type combined with walk of fame like in Hollywood depicting in our case significant family contributions, explores, and educating related materials) for areas and provide police watch daily 24-7) horse back and or bike and or walk the beat police are best.

O-9-9

8) the plan should provide for a 20 year BID/community group to insure success involvement of stakeholders

9) Tax Increment money should be provide from projects ot be built such that these funds will be rededicated back to just this area form which it came.. i.e. to be spent within the same specific plan area on additional housing health care, school projects including buildings to secure the best teachers and facilities possible (The New River School) to service the area

10) no building should be allowed to be higher then 20 stories.. and we should not allow long rows of buildings that could block the river off but at the same time we need to create density zones and nodes of opportunities within the nodes that are being created.. to encourage the building of a community..

Thank you for your consideration

Kim Benjamin, President, LaeRoc Funds
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President, Historic & Cultural Neighborhood Council (HCNC) of downtown Los Angeles www.hcncla.org

President, Los Angeles Chinatown Business Improvement District (CBID)
www.chinatownla.com

Board Member, Arts District Business Improvement District (ADBID)
http://www.centralcityeast.org/Arts%20District/index.html

O-9-9: Comment acknowledged.

O-9-10: Comment acknowledged.

O-9-11: Comment acknowledged.
Letter O-10

March 23, 2007

VIA ELECTRONIC MAIL

Carol Armstrong
LARRMP Project Manager
City of Los Angeles
Department of Public Works
Bureau of Engineering
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Los Angeles, CA 90015
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Re: Comments on Los Angeles River Revitalization Master Plan Draft Programmatic Environmental Impact Report/Programmatic Environmental Impact Statement

Dear Ms. Armstrong:

On behalf of the Natural Resources Defense Council ("NRDC"), and its over 1.2 million members and on-line activists, with over 250,000 members in California, I submit these comments on the Los Angeles River Revitalization Master Plan Draft Programmatic Environmental Impact Report/Programmatic Environmental Impact Statement, State Clearinghouse No. 2006041050 (hereinafter "draft PEIS"). The Los Angeles River Revitalization Master Plan ("LARRMP") generally succeeds at capturing the vision of local citizens, activists, and environmental justice advocates that fight to restore the once-vibrant Los Angeles River to previous prominence. And the draft PEIS is an informative and visually inspiring document. Nevertheless, NRDC submits the following comments.

Requirements under NEPA and CEQA

The draft PEIS must comply with the requirements set forth in both the National Environmental Policy Act of 1969 ("NEPA") and the California Environmental Quality Act ("CEQA"). In this spirit, the City of Los Angeles Bureau of Engineering and U.S. Army Corps of Engineers Los Angeles District have prepared a single document to satisfy state and federal law. But the draft PEIS must nevertheless satisfy both statutes lest it be considered inadequate.1


O-10-1: Comment acknowledged.
A. National Environmental Policy Act Requirements

Enacted by Congress in 1969, NEPA commits the federal government to “encourage productive and enjoyable harmony between man and his environment” and “promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man.” To realize these goals, NEPA demands that the “policies, regulations, and public laws of the United States be interpreted and administered” in accordance with its principles, “to the fullest extent possible.” This strong mandate was intended to guide agencies in preparing an EIS, which is required of all projects that “may significantly degrade some human environmental factor.” As the Supreme Court explained:

NEPA’s instruction that all federal agencies comply with the impact statement requirement—and with all the other requirements of § 102—to the fullest extent possible,” 42 U.S.C. § 4332, is neither accidental nor hyperbolic. Rather the phrase is a deliberate command that the duty NEPA imposes upon the agencies to consider environmental factors not be shunted aside in the bureaucratic shuffle.

The fundamental purpose of an EIS is to force the decision-maker to take a “hard look” at the environmental consequences of her proposal, before a decision to proceed is made. The EIS must be an objective, neutral document, not a work of advocacy to justify a predetermined result. To help achieve this goal, NEPA sets forth a list of factors that the responsible official must consider—to the fullest extent possible—and include in a “detailed statement”:

(i) the environmental impact of the proposed action;
(ii) any adverse environmental effects which cannot be avoided should the project be implemented;
(iii) alternatives to the proposed action; and
(iv) the relationship between short-term use of man’s environment and the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

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2 42 U.S.C. § 4321
4 *Steamboaters v. F.E.R.C.*, 759 F.2d 1382, 1392 (9th Cir. 1985) (emphasis in original).
5 *Flint Ridge Development Co. v. Scenic Rivers Ass’n*, 426 U.S. 776, 787 (1976). The Ninth Circuit has recognized that the congressional mandate to apply NEPA “to the fullest extent possible” is “a direction to make as liberal an interpretation as we can to accommodate the application of NEPA.” *Lafayette v. F.E.R.C.*, 852 F.2d 369, 398 (9th Cir. 1988) (quoting *Jones v. Overton*, 792 F.2d 821, 826 (9th Cir. 1983)).
7 40 C.F.R. § 1502.2(g).
Comments

The duty to consider “alternatives to the proposed action”—to “rigorously explore and objectively evaluate all reasonable alternatives”—lies, in the words of the regulators, at the heart of the entire assessment process. Agencies must devote substantial treatment to each alternative and provide support for their decisions to accept or reject them.

Environmental effects are interpreted broadly to include economic, social and other environmental justice considerations. The “effects” to be analyzed include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. NEPA analysis shall include discussions of the direct environmental effects and their significance, the indirect effects and their significance, the environmental effects of alternatives including the proposed action, and urban quality, historic and cultural resources, and the design of the built environment.

In addition, the Council on Environmental Quality created the following guiding principles for environmental justice analyses under NEPA:

(i) consideration of the racial composition of the area affected by the proposed action, and whether there may be a disproportionate impact on minority populations;
(ii) consideration of relevant public health and industry data and the potential for exposure to environmental hazards;
(iii) consideration of “the interrelated cultural, social, occupational, historical, or economic factors that may amplify the natural and physical environmental effects of the proposed agency action;”
(iv) development of “effective public participation strategies” and
(v) assurance of “meaningful community representation in the process.”

B. CEQA Requirements for Mitigation Measures

In addition to the largely procedural requirements under NEPA, the City of Los Angeles Bureau of Engineering and U.S. Army Corps of Engineers Los Angeles District must comply with the substantive requirements of CEQA. This not only requires consideration of environmental impacts and alternatives but mandates feasible measures to mitigate or avoid the adverse effects. This duty is absolute. An agency cannot approve a project if the EIR identifies significant environmental effects unless the agency finds that (1) mitigation measures required in or incorporated into the project will avoid or substantially lessen the significant effects; (2) those measures are within the jurisdiction of another public

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10 40 C.F.R. § 1502.14(b); Natural Resources Defense Council v. Callaway, 524 F.2d 79, 93 n.12 (2nd Cir. 1975).
11 40 C.F.R. §§1508.8.
12 40 C.F.R. §1502.16.
agency and have been adopted, or can and should be adopted, by that agency, or (3) specific economic, legal, social, technological, or other considerations make the mitigation measures or alternatives identified in the EIR infeasible and specific overriding economic, legal, social, technological, or other benefits outweigh the significant environmental effects.\(^{14}\)

In other words, CEQA requires the agency to find, based on substantial evidence, that the mitigation measures are “required in, or incorporated into, the project” or that the measures are the responsibility of another agency and have been. or can and should be, adopted by the other agency; or that mitigation is infeasible and overriding considerations outweigh the significant environmental effects.\(^{15}\) In addition, the agency “shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures” and must adopt a monitoring program to ensure that the mitigation measures are implemented.\(^{16}\)

Before approving a project for which an EIR is required, the agency must make a finding that the project’s impacts have been mitigated or that such mitigation is infeasible but the benefits of the project nevertheless outweigh the unmitigated impacts.\(^{17}\) It is important to note that even if the benefits outweigh the impacts, the EIR must contain a finding that the mitigation measures are infeasible.\(^{18}\)

General Comments on the Los Angeles River Revitalization Master Plan

Not since the Olmsted Brothers submitted their 1930 report “Parks, Playgrounds, and Beaches for the Los Angeles Region” has such a transformational plan with region-wide significance come to the fore. Although differences may exist as to the exact approach to river revitalization, the LARRMP succeeds at addressing historical abuses and presenting a vision for future development. NRDC fully supports these efforts, and offers these comments in the interest of improving the LARRMP.

Failure to Incorporate Multi-Cultural Portrayals – The images scattered throughout the LARRMP fail to capture the multi-cultural values, uses and vision of Angelenos. To the extent that the LARRMP is a visionary document, the visual expression of this vision must correspond to its written expression. For example, although the LARRMP speaks to the diverse population of would-be river-goers, the pictures largely depict Anglo-Americans enjoying the LA River in solitude, with a partner, or as a nuclear family.\(^{19}\) For many cultures, this is the exception, not the norm, as larger

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\(^{15}\) Id. at § 21081; CEQA Guidelines § 15091(b).

\(^{16}\) Pub. Res. Code § 21081.6(a) and (b).


\(^{19}\) In 2000, Los Angeles County was approximately 32% white, 44.6% Latino, 9.6% African American, and 11.9% Asian, according to the 2000 Census data. In the year 2020, the California Department of Finance projects Los Angeles County to be approximately 26% white, 52% Latino, 8.6% African American, and 11% Asian. See State of California, Department of Finance, Population Projections by Race/Ethnicity, Gender and Age for California and Its Counties 2000-2050, Sacramento, California, May 2004.
gatherings and diverse recreational activities are common. Therefore, we encourage incorporating visuals of Latinos,20 Chinese-Americans, African-Americans, and other ethnicities engaged in diverse activities, including, but not limited to, barbecues, active team-sport activities (e.g., soccer), and extended or intergenerational family gatherings.

Native Flora and Fauna – To the extent that the LARRMP uses pictures as a vehicle to represent its vision, the visual expressions once again must correspond to the written expression. There is a disconnect between the pictures, which do not depict native flora and fauna, and the textual emphasis on incorporating native flora and fauna. For example, the “improved Spring Street” image21 should portray native canopy trees—such as native sycamores—and other pictures22 should depict native bushes and grasses.

Public Art by Local Artists – In addition to providing opportunities to introduce art along the LA River and creating the River Arts Program, the LARRMP should specifically provide space/opportunities for local artists. The LA River is, indeed, “an iconic emblem of Los Angeles”23 and the need to adorn it with the work of local artists is important. In addition to areas for art in general, emphasizing spaces and opportunities for local artists will help preserve the LA River’s Angeleno character.

Specific Comments on the Chinatown-Cornfield Opportunity Area

The LARRMP provides too little attention to providing a vision for the Chinatown-Cornfield Opportunity Area. Although some attention is afforded to capturing the collective vision of the diverse coalition that sought to prevent industrial development at what is now Los Angeles State Historic Park (hereinafter “the Cornfield site”), the LARRMP could—indeed, should—go much farther.

Require Specific Plan for Chinatown-Cornfield Opportunity Area – It is imperative that the City of Los Angeles secure funding for a specific plan in order to capture community opportunities at Chinatown-Cornfield Opportunity Area before these opportunities are irrevocably lost. The area is under intense development pressures and recent amenities only increase pressures for private development. A specific plan would provide the opportunity to address these immediate threats, which are foreseable and heightened upon approval of the LARRMP.

Enhance Vision of Chinatown-Cornfield Opportunity Area – It is imperative that the City of Los Angeles articulate a clearer vision for the

20 According to California State Parks, Latinos visited two types of park and recreation areas most frequently. Latinos preferred highly developed and developed nature-oriented parks and recreation areas for their recreation activities. California Department of Parks and Recreation Planning Division, Public Opinions and Attitudes on Outdoor Recreation in California – 2002.
21 Draft LARRMP at 6-33.
22 See, e.g., Draft LARRMP at 5-3, 5-13, 6-21, 6-33.
23 Draft LARRMP at 5-32.
Comments

Chinatown-Cornfield Opportunity Area. Recent efforts to revitalize the Cornfield site, the LA River and downtown area are critical steps toward a rebirth of Los Angeles’ historic core. Local communities and elected officials have been successful on many fronts: communities effectively mobilized to save the Cornfield site from development; the City of Los Angeles established the Ad Hoc River Committee to oversee revitalization efforts of our historic river, and funding grows for La Plaza de Cultura y Arte near Olvera Street, a place honoring Los Angeles’ Mexican American cultural heritage. Instead of disconnected slabs of historical, commercial or cultural interest, the Chinatown-Cornfield Opportunity Area and surrounding neighborhoods need to be connected to identify and celebrate our city’s heritage. Interpretive trails, bikeways and riparian habitat along the LA River must connect Taylor Yard to Confluence Park to the Cornfield site—the first step toward a meandering string of parks along the LA River. North Spring Street must include an abundance of large canopy shade trees (native sycamores are the best example), an increased median, reduced traffic flow and expanded sidewalks. As such, North Spring Street can provide a pedestrian-friendly promenade between the Cornfield site, Chinatown and Olvera Street. Future improvements could then branch out from existing pedestrian corridors. Ideally, a revitalized Cornfield site and LA River, with their proximity to an evolving urban centre, would be a magnet for residents and visitors alike in a seamless flow of connectivity. Although some treatment is afforded, the LARRMP should go beyond mere mention of certain components and discuss in more detail, bringing in these and other elements, as a way to preserve this vision throughout LARRMP implementation.

Provide Vision for Los Angeles State Historic Park – The LARRMP should make specific recommendations on the role of the Cornfield site. As currently drafted, the LARRMP provides too little attention to this important parcel, portraying it as simply a green banana and briefly mentioning it in text. As a microcosm of Los Angeles history, the Cornfield site is illustrative of the transformation of Los Angeles. Each snapshot in time reveals a moment in Los Angeles’ history, culminating in the stirring period that led to the park’s creation. It is our belief that the legacy of the Chinatown-Cornfield Opportunity Area, generally, and the Cornfield site, specifically, will be its ability to serve as an example of how communities can play an active role in determining the make-up of their neighborhood. In this sense, the attraction of the Chinatown-Cornfield Opportunity Area and Cornfield site is not only their ability to tell the story of Los Angeles’ historical transformation, but its continuing ability to serve as a model to transform the visitor and the city, both today and tomorrow. In this sense, the LARRMP should provide a vision for the Cornfield site itself, and its relationship to immediately adjacent parcels such as the City easement or the MTA-owned triangle at the end of Baker Street, and do so in a way that effectively captures the essential themes of connectivity, cultural/historical, recreation, and transportation outlined in the Cornfield State Park Advisory Committee Recommendations Report.
O-20-3: The EIR has mitigation measures, which would be adopted by the decision makers. Additional mitigation measures are expected to be adopted at the time of approval of specific projects. Each specific project will undergo its own environmental review during which project-specific mitigation measures as well as cumulative impacts would be assessed. The LARRMP calls for subsequent actions starting with development of the River Improvement Overlay (RIO) district and updates of existing Community Plans, which would involve the assessment of impacts related to land use, urban design, development approval, and other changes related to the Los Angeles River. As such, issues related to land acquisition, land use cumulative impacts, and mitigation measures would be dealt with at that time, as stated in the response to Comment O-6-10. Additionally, existing conditions involve the piecemeal development of disparate parcels and the LARRMP’s recommended 3-tiered governance structure is intended to result in an improvement through more streamlined, coordinated oversight of development within the River Corridor (not—as suggested—as a means to exacerbate these trends).

O-20-4: RIO and Community plan revisions will address these issues that are stakeholder-driven. Your comments regarding the Ad Hoc Committee of the Los Angeles River are acknowledged. Such decisions are matters of policy that must be considered by the City's elected officials subsequent to Plan adoption, should the Plan be adopted. Also, see response above.

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25 Adverse impacts can be expected to result from approval of the LARRMP, including the piecemeal manner of property acquisition/development and real-estate speculation. These foreseeable actions by private parties seeking to capitalize on the LARRMP vision will impact air quality, water quality, land use, recreation, noise, transportation, utilities and infrastructure, environmental justice, and aesthetic resources. For example, the properties within the Chatsworth Corridors Opportunity Area have already begun to increase in value as speculators and developers see opportunities in the revitalized areas. The approval of the LARRMP will only exacerbate these trends, triggering individually and cumulatively significant impacts. In fact, if left unchecked, these trends could irreversibly frustrate and sabotage revitalization efforts.
26 The Los Angeles Ad Hoc River Committee, an ad hoc committee of the Los Angeles City Council, was established in June 2002. The Ad Hoc River Committee focuses on major revitalization efforts on the historic river, opportunities for parks, trails, recreation, nature, neighborhood identity, jobs, community development, tourism, civic pride and more. The Committee's efforts center on the following four tasks: (1) inventory, the Committee compiles and maintains an inventory of projects planned/underway along the river, and serves as a clearinghouse to facilitate and coordinate community, City, and regional revitalization efforts; (2) analysis, the Committee fosters public/private stakeholder discussions on accomplishing short and long-term goals and opportunities; (3) policy, the Committee makes recommendations for City policy to ensure that resources are working together to foster a long-term vision for the river and adjacent neighborhoods; and (4) implementation, the Committee coordinates City resources for planning, promoting, funding, and implementing projects.
O-10-5: Comment acknowledged. We concur.

O-10-6: The project area has already registered raises in land prices and has put a strain on the affordable housing and small business sectors. The LARRMP recognizes the need to update existing Community Plans in River-adjacent areas through an extensive and inclusive community involvement process to ensure that LARRMP benefits are as equitably distributed as possible. That Community Plan update process will enable assessment of impacts on housing, loss of affordable housing, jobs, as well as on issues related to zoning modifications, gentrification, and preservation of community standards in terms of community stability and makeup. This is a stakeholder driven process that is best suitable to gauge community support. The overall policy of the Plan is to encourage the retention and strengthening of stable residential areas, and to balance this with a long-term program to acquire properties for flood protection and River improvement. However, a strategy to ensure protection against these incompatible uses is the adoption of the LARRMP, which would trigger Community Plan revisions.

O-10-7: Any impact on housing would be mitigated per the City of Los Angeles policies promulgated by the City’s Housing Authority related to relocation, compensation, and affordable replacement. Additional measures could be developed at the time of the RIO district determination, based on specific community input and needs, subject to further environmental review.

Affordable Housing* – Rising housing prices in desirable neighborhoods will result in displacement of working-class communities-of-color, i.e., gentrification. This can happen in at least three ways. Firstly, rental units in revitalized areas will command higher rents, displacing long-standing residents who are priced out of now-desirable neighborhoods. Secondly, the increased demand for housing along the Los Angeles River will result in new housing developments/conversions that are not mandated to set aside affordable units, resulting in creation of market-rate units. Thirdly, long-standing public housing units, such as the William Mead homes in the Chinatown-Cornfield Opportunity Area, are slated for removal under the preferred alternative. Each of these adverse impacts can be feasibly mitigated with inclusionary zoning or other affordable-housing measures that provide preferential status to existing residents. Moreover, an Affordable Housing Task Force could be established to identify best management practices for preventing gentrification and displacement.

*Affordable housing means housing affordable to working class communities.
Prohibition on High-Speed Rail in Critical Areas — The California High-Speed Rail Authority has proposed a bullet train corridor that could potentially spoil newly created and planned recreational areas at Taylor Yard State Park, near Cornfield State Park and along the Los Angeles River. The “corridor for further study” between Burbank Airport and Union Station contains alignments that would physically obstruct access to Cornfield site, LA River and Taylor Yard Park; wedging portions between two active rail lines; creating visual blight and noise pollution for picnicking families, soccer players and people simply seeking peace and quiet; and forcing residents to cross various transportation corridors to gain access to these revitalized areas. This harm to our parks and recreation areas is unnecessary and can be guarded against by commonsensical protective measures such as buffers along LA-River banks, and precluding development on the Metrolink or San Fernando Road.

I look forward to working toward implementing the LARRMP. If you have further questions or comments, please do not hesitate to contact me at (310) 434-2300 or tgrabel@nrdc.org.

Tim Grabiel
Project Attorney
Natural Resources Defense Council

O-10-8: Comment noted. The City has been contacted by the California High-Speed Rail Authority regarding the bullet train. We continue to work with them to ensure that the LARRMP project components are taken into consideration in their environmental document.
Letter O-11

From: lary@northeasttrees.org
Sent: Tuesday, March 27, 2007 10:35 PM
To: engplan@huey.org
Cc: lary@northeasttrees.org
Subject: LA River HMP Site - Comment on Master Plan

Comment Type: Comment on Master Plan

Subject: Comments

Comment:
March 26, 2007

Ed Reyes, Chairman
City Council Ad Hoc Los Angeles River
Committee

Dear Ed:

I would like to thank you for your leadership on this milestone in urban planning in Los Angeles. On behalf of the entire staff and board at North East Trees, we applaud your tireless efforts on behalf of the City, to develop a vision for integrating the Los Angeles River into a more sustainable urban fabric. As you probably already know, our approach to creating sustainable transformation of this resource has been a more organic finer grain bottom up approach. Our experience has informed us that sustainable transformation requires Community Stewardship, which begins with the idea of the character of the transformation, and continues through planning, design, development and, to finally, what we call “adaptive management.”

We recognize the efforts of the Los Angeles River Revitalization Master Plan team to involve the community in their planning and design process. We look forward to this involvement continuing into future phases of the “Revitalization Process.” A robust community involved process will produce sustainable outcomes that a more typical top down development process can never produce.

Though our Mission, “To restore nature’s services in resource challenged communities, through a collaborative resource development, implementation and stewardship process,” may appear to be incompatible with active recreation use park development, we believe strongly that ALL park land can be multi-purposed. This will require creative collaborations amongst various environmental, environmental justice, social justice, and at-risk-youth intervention community based organizations. We will all have to reach beyond our current comfort zones for these collaborations to result in true transformation of how we design, develop and maintain open space/parks.

We also wholeheartedly support the Plan’s “Goals for Los Angeles River Management.” Revitalization begins with connections. The process of creating connections from neighborhoods to the River creates awareness. Awareness opens access to networks of resources that can catalyze urban reinvestment. It is absolutely key that the process of Revitalization lives beyond changes in political leadership, as true Revitalization will span generations of residents of Los Angeles. It is also critical that River Management be nimble. Community based organizations and non-profits are often in a better position to respond quickly to changing conditions and opportunities. Building capacity within such organizations should be a goal of River Management.

One aspect of River Management that will be critical for its success is the creation of a rational streamlined development approval process. Our experience has informed us that the biggest barrier to successful project implementation is the lack of such a process. Development guidelines and an “authority” that is tasked, empowered and adequately funded for true “adaptive management” is imperative if we are going to see the creation of a transformed and ecologically sustainable Los Angeles River environment.

Oar staff, here at North East Trees, has compiled a list of suggestions for improving the Plan in its current incarnation, and also suggestions for future directions. The following pages are devoted to that substantive
content. Again, thank you for your leadership. We look forward to working with you and all the other leaders and stakeholders of the Los Angeles River towards a successful implementation of this Plan.

Sincerely,

Larry Smith, Executive Director

Specific Los Angeles River Revitalization Master Plan Comments/Suggestions Bikeways and Connectivity. We would like to see the completion of the Class One Bike Way through the confluence of the Arroyo Seco and the Los Angeles River. This will require getting the stakeholder agencies to agree on one alignment and on seeking funding for long term construction and operations and maintenance. We applaud your efforts at finally securing the MTA funds and the City match to build the bridge across the Los Angeles River, at Taylor Yards in Elysian Park. We believe at least one more crossing is vital to the connectivity of the Core Cities and Taylor Yards nodes to Downtown and Pasadena, via the Arroyo Seco, and to the Valley via Griffith Park. We need leadership and vision to add this connection to the proposed blueprint.

Below, we submit our comments on the plan in two parts. Part One consists of comments on the text of the plan. Page number and section number references relate to the numbering system used in the Revitalization Plan. Part Two is a formal letter submitting comments on the required programmatic EIR/DEIS document on the proposed plan. We recommend a lighter footprint on the river. We do however find much of the visioning compelling and larger applications of small pilot projects we at North East Trees have been designing and implementing in a real world basis, with County of Los Angeles Proposition A funds, since 1999.

Part One: Comments on Text of City’s Revitalization Plan. Though we understand that the Master Plan is designed to be a visionary blueprint of the transformation of this important resource, we see a need to move quickly towards developing realistic cost projections for the public improvements envisioned in the Plan. We understand the need to attract private investment, without which this Vision would not be realized. Towards this end, a priority should be given to establishing and funding the proposed “Management Structure for a Revitalized River.” In addition, a more explicit recognition and delineation of what has worked to date to develop open space improvements along the Los Angeles River, San Gabriel River, Arroyo Seco and other local tributary corridors should be added to the Plan. As North East Trees has designed, built and maintained such projects along such corridors, we will be happy to provide text that could meet that end. In the evolution of any ambitious transforming process such as the revitalization of the Los Angeles River, “lessons learned” properly articulated and understood contribute greatly to the process.

Section 1: Ground Work. This section lacks a list of constructed pocket parks and other landscape improvements along Los Angeles River Parkway, and does not give credit for design and construction of each photographed project to appropriate agency.

Attachment 1: We will be pleased to share a project list, with photographs of work, along the Los Angeles River. Please provide us with adequate intellectual property ownership in your publications – we will send this information along through a separate channel to the Project Team Page 2. Text says city has invested in parks along the river. Need to add examples of projects funded and maintained by City, State, County and nonprofits.

Text should mention Mayor Bradley’s efforts, and the County’s Master Plan, and their current efforts. There should be more coordination among the agencies. Need to create a working group similar to the one that began to sort out bike path alignments in 2001. Need to reference the Los Angeles River Management and Maintenance Task Force that meets regularly to sort out issues related to operations and maintenance. Councilman Garbett’s office has taken the lead on this.

Text should outline the regime for permitting and building parks along the river, and explain the challenge of securing funding for operations and maintenance to the public. The Plan should make it easier to develop more of these small park projects and should expedite continued bike path, and the required coordination with other agencies.

Additional Resources: LA City must approve installing signs for the River and agree to maintain them. LA County currently installs river signs on Riverside Drive and maintains them. They can provide additional leadership on bike routes and paths. The County also offers resources through the Open Space District Interest program. Towards this end, grant cycles should be referenced, to provide some context for action by the City Council and the Mayor.

Section 2: Community opportunities.
Comments

For these to work, the public needs to believe there will be a planning process that is transparent and fair. Infrastructure for river needs to be thought out and put into a specific plan or overlay zone, so that when new development is proposed, city departments know what the priorities are and costs and mechanisms for implementing improvements. Standards for improvements should be adopted as soon as possible.

River Overlay Zone: We want to understand how this will work, what kind of language it will contain for publicly owned lands, will it facilitate non-profit restoration projects? Will it explain who is responsible for enforcement? Will it be co-terminus with the entire stretch of the river?

If the report states 32 miles as the length of its jurisdiction, this should be clarified. Perhaps a clarifying map would explain jurisdiction of LA City. Do you have any recommendations for a regional approach?

Management Structure:
We believe a JPA with special district funding that allows a blending of flood control, water quality, water distribution and recreation funds and functions is what is needed. However, we would prefer a “resource conservation district” type of governance structure, which would allow a small agency to work with a team of expert adaptive management resource managers to develop these types of projects.

We also like the Los Angeles River Management and Maintenance Task Force as a model for interim projects, and for working out protocols for better maintenance, cleaning, public safety and adding lighting and for completing projects that are already funded.

We also recommend looking at other examples of open space districts in Marin County, and Santa Clara County, which may provide additional models for managing this type of resource.

Water quality issues

The City should adopt new Standard Plans to allow a roll out of “Green Streets” at least along streets within 1/2 mile of the Los Angeles River, Arroyo Seco, Tujunga Wash, Compton Creek, and Ballona Creek. In addition, we strongly recommend that the City adopt new building and safety codes to encourage the reduction of wet and dry weather water runoff from private and public property for the purpose of groundwater recharge or gray water reuse as irrigation water. We will be completing the draft “Green Street” in Los Angeles this Spring in partnership with the Bureau of Street Services Special Projects Division. Designs for this project can be used to develop new Standard Plans for Green Streets. An important related step would be to develop an official “Green Streets Designation” that will have its own set of Standard Plans. North East Trees will be glad to participate in the development of those Standard Plans and in the development of a “Selection Criteria Matrix” that can be used to designate a city street as a “Green Street.”

We strongly urge you to include the Hazard Stream-Wetland Restoration Area to the list of significant ecological areas in the revitalization plan. We have completed a Biological Survey for this project area that we will be happy to share with your Project Team. We also believe that Debs Park, Ascot Hills, and Elysian Park provide important natural resources that should be mentioned in all of your base maps in this section. You should also include SRA areas at Whittier Narrows, on the maps that extend out to include that area. There are also some ecologically significant areas in the South Gate reach at Imperial Highway. The Rivers and Mountains Conservancy (RMC) is working with USC Green Visions to map all of these regional resources. You might want to review them as well. Natural resource areas within the eastside communities of Los Angeles should be referenced. We also believe that the 710 freeway expansion planned through the El Sereno community will run over old rivers, streams, and riparian resources that could otherwise be restored to a more natural state. We believe that this will have a negative impact on the neighborhoods on the Eastside of Los Angeles, and that there should be some discussion about the LA River, the 710 expansion, and opportunities for mitigations opportunities. CSULA, University Hills, Baldwin Hills are also resource areas that should be included in your maps.

Transportation

The railroad ROW is still shown through Hazard Park. The tracks are no longer there, though the ROW remains as a golden opportunity for a bike/pedestrian linkage from Ascot Hills to Maywood at the southern terminus of the Hazard Stream-Wetland System Restoration Project Area. With some creative planning a linkage could be completed to the Los Angeles River. The national Rails-to-Trails Program has created many such connections across the country and should be a referenced resource for this type of work in the Area. We also believe that a discussion about the proposed 710 freeway expansion and the effects on the LA River Greenway is appropriate for this section.

Responses
Comments

There should be more information about what will be needed to ensure a coordinated River Bikeway Plan is planned, designed and developed. In many other parts of the county, rivers are the main corridors for Class One Bike Paths.

We agree that a watershed approach should be incorporated into this planning effort for the corridor. However, it is understandable that the city took the corridor approach, as they seem to envision redevelopment of industrial zoned lands with housing or commercial retains. Regardless, we would like to see the Eastern Tributaries documented in this plan. We are working on developing a East Los Angeles Holistic Watershed Planning study for the areas that are east of the Arroyo Seco. This study is referenced in the RMP recently adopted by the County of Los Angeles on their plan. It's headwaters begin in the City of Los Angeles, El Serreno, with underground streams that need to be researched and documented. North East Trees is seeking grant funding for this watershed plan from the Rivers and Mountains Conservancy and other state sources. We also urge the city to adopt a watershed approach to its L.A. River planning efforts.

Plan Approach: We are surprised to see that the City is recommended a top down implementation paradigm for this plan. We expected to see a plan, that would continue to encourage the development of organic infill projects at the grassroots level. These projects have not cost the city any money either for development, or for operations and maintenance. We are surprised that this plan does not lay out a framework for the development of standards for new public projects or for private developers adding mitigations in the public right-of-way.

We are disappointed that there are no recommendations for the development of implementation strategies. It is unclear what the city's priorities are, other than the goals laid out in Chapter 4. We disagree with the priorities implied in this section. We will be very interested in how responsibilities will be delineated across city departments for the completion of projects already funded, but not developed.

Goals

We are concerned about the site of these projects and the social impact on adjacent property owners. Enhance water quality is important, but rather than creating new wetland in the near term along the river which is expensive and disruptive, we believe that it makes sense to look at the tributaries and in the watershed to find projects. We need to demonstrate how stream-wetland restoration can work in smaller scale projects, and use those lessons learned to increase the scale at the Los Angeles River. We would argue that the city should continue to work with agencies to find small infill projects with existing resource value, so that the restoration costs less and is of a more appropriate scale of project.

All river projects should be connected with a class-one bike path from Union Station to Sepulveda basin, as a 25-year goal. As an immediate 3-5 year goal, we recommend the city officially adopt a bike path alignment from Griffith Park to Union Station. The larger scale project contained in this report is noble, but it should not distract from improving safety and public access to the river for the residents of the city that goes on everyday without the benefit of this Plan. This is especially so for those residents living in the marginalized neighborhoods along the Los Angeles River from Elysian Valley south.

Concurrent Planning Efforts:

The Plan does not mention the double watershed plan by the RMC and the SMCC. It does not mention the Arroyo Seco Watershed Management Plan, nor the Green Streets Project by NET. Nor, did we see details about the US Army Corps Role, the studies that are making, or new partnerships and what the Corps wants to help us do.

Functionality of the river and wetlands, where there is little left is expense to duplicate. We would argue that the plan also allow for identifying degraded resources within the tributaries of the LA River, and allow funding be used for their implementation as well as for the corridor plan. There are dozens of buried streams and arroyos in the City. We know of Hazard Stream and wetland, Arroyo Rosa Castillo (adjacent to the CSULA and the 710 freeway), Elephant Hill Stream, and the Ascot Hills Stream. These are but a few, but they should not be exempted from Proposition O funding or other clean water funds, because they are not included in the corridor plan. Rather, the corridor plan should include a section on tributaries (as they do for the Valley) so that these projects qualify for funding in the future. The City should also offer to do a joint watershed plan with the County, and other cities, as required by state water bonds.

Opportunity Parcel River Glen:

Why does plan propose a "top down" approach for ecological restoration. We would argue that restoration projects need to make sense, financially, and environmentally. In contrast to your approach for River Glen, we understand that CalTrans has already approved a redesign for the confluence of the 134 and the Interstate 5. What we call "Polywog Park" was just selected to receive funding from the State Regional Water Board. Our approach is to restore ecological functionality to the site, with low technology approaches. Please remove language about tributaries being beyond the scope of this plan. This plan will be used for funding.
recommendations and projects that improve quality of water and natural ecosystem functionality of tributaries
should be included. Generally
p. 4-15 Water Quality. TMDL. City is under court order to reduce pollution at Atwater Village Site, at the
Hazard Stream-Wetland Restoration Project Site and at Lake Mission. We believe that the city should
reference these projects as priorities, since they address water quality, flood storage, and recreation and
environmental restoration. And they are taking place on city owned lands. There should be a section about
city-owned resources being a priority for river restoration and public access in neighborhoods that are not
adequately served in terms of open space, city services, and where there is an over-concentration of regional
industrial infrastructure, freeways, pollution, etc. We believe that this grouping should be a priority, before
flood storage. It places priority on cleaning polluted areas, serving underserved communities, and
understanding the system of water quality, distribution, and recreation and habitat restoration.

p. 4-18
Add Hazard Stream-Wetland System Restoration Project Area to the list of rivers and tributaries and to the
maps please. The use of tributary is very important for future funding opportunities. The County’s Master
Plan focused on the corridor, however funding from Prop A open space district, defines river funding, as going
to corridor or tributaries.

p. 5-25: Steelhead Park (design and built by North East Trees) Section 6.1 Taylor Yard: Opportunity area
Several projects in the pipeline should be referenced in the plan:
1. MTA Bridge over LA River in Elysian Valley
2. Elysian Valley Street Ends with LA Co DWP funds
3. Bike Path funded Fletcher to Barclay
4. Oros Green Street
5. The development of a preferred alignment and submit for grant funding a bikeway connection from
   Taylor Yards, north and south to Corinfields
   Boyle Heights:
   Two important projects need to be added to the sites looked at as possible opportunity sites.
   1. The Hazard Stream-Wetland site was first referenced in the Wetlands Recovery Plan of 1998. Then the
      Los Angeles and San Gabriel Rivers Watershed council adopted it as a project and funded a feasibility study
      completed by Pomas. In 2005, North East Trees entered into an agreement on the Hazard restoration project
      with the expectation that the City will adopt the project as a capital project by December, 2007.
      2. We believe that while Hazard Park is not currently included in either the Lincoln Heights Neighborhood
         Council, nor the Boyle Heights Neighborhood Council, we believe that it should be added to the Boyle Heights
         Neighborhood Council, when it becomes reorganized. We believe that the USC/LAC Medical Campus also be
         included up to Valley Boulevard, as the historic tracts were originally laid out. This is part of the Eastern
         Tributary of the Los Angeles River.
   3. A historic stream remnant in City Park land should be a priority project for implementation, and for
      public funding, and for call out as a watershed project, and sub-tributary of the corridor plan. Such
      tributaries should be called out in all geographic regions adjacent to the Los Angeles River or none.
   Comments on the LARMP Related to the Arroyo Seco / LA River Confluence Zone
   1. The plan in general ignores the significant habitat and ecological restoration opportunities offered by
      the Arroyo Seco Watershed. The Arroyo Seco comprises approximately 5% of the LA River Watershed, and
      provides the most direct and unobstructed corridor between the San Gabriel Mountains and the Los Angeles
      River Corridor. The critical bottleneck in this corridor exists in the Los Angeles portion of the Arroyo Seco.
      Addressing this barrier is not mentioned in the existing plan.
   2. The plan does not highlight the opportunities presented by land owned by public entities (including
      the City of Los Angeles) adjacent to the confluence. The City of Los Angeles currently owns Bureau of
      Sanitation yard just northeast of the confluence and open land along that channel on either side of Avenue 26.
      These properties are adjacent to the Lincoln Heights Gold Line Station, and could provide Gold Line rider
      access to the LA River and other amenities of the Taylor Yards zone via the Arroyo Seco.
   Part Two. Comments on Programmatic EIR/EIS
   1. Biological resources: The Hazard Stream-Wetland System Restoration Project would create a high value
      habitat which should be included as a project alternative that can be implemented within the next 3 years in a
      far more cost effective manner than recreating wetlands within the same time frame along the Los Angeles
      River channel. This would be the first true stream-wetland restoration project in Los Angeles and could be
      used as a demonstration project for what could be possible along a larger stretch of the Los Angeles River; it
      could also provide some mitigation of negative air quality impacts indicated in the Programmatic EIR/EIS.
      2. Environmental Justice: We prefer lower impact alternatives that can be implemented as a distributed
         network of projects in less time, for less money and with a greater positive impact across more already

O-11-1: Comment acknowledged.
O-11-2: Comment acknowledged.
O-11-3: See response to Comment O-7-4.

O-11-4: Comment acknowledged.

O-11-5: The PEIR/PEIS incorporates by reference the Integrated Resources Plan (IRP) EIR approved by the Los Angeles City Council in 2006. The IRP dealt with regional water related issues in terms of the regional runoff management, groundwater recharge, water recycling and reuse, as well as wastewater management. Concurrently, the City is involved in the preparation of the Integrated Regional Water Management Plan, which is under the leadership of the Los Angeles County Department of Public Works. These and other management efforts affecting the watershed are referenced in the PEIR/PEIS to ensure consistency with a watershed planning approach, which can be the basis for future LARRMP collaborative planning, project implementation, and funding partnerships.

O-11-6: See response to Comment O-7-4. Also, concurrent with the adoption of the LARRMP, the plan recommends that the Department of City Planning initiate review of the General Plan, Community Plan, and/or Specific Plan requirements, including public outreach, to ensure conformity with the goals and objectives and policy recommendations contained in the LARRMP. Specific land use measures and changes will be evaluated at that time. Design standards and guidelines with the River Improvement Overlay (RIO) district will also be evaluated and will involve public participation and additional environmental review.

O-11-7: Comment acknowledged. The LARRMP’s proposed 3-tiered river management structure is intended to address issues, such as maintenance and security, in a more streamlined and efficient manner.

O-11-8: Comment acknowledged. We concur.
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<th>Responses</th>
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<td>O-11-9: The LA River bike path from Fletcher to Barclay is funded. The City has been in the process of acquiring rights-of-way and easements to complete this project. This process requires strict adherence to legal procedures, especially when there are land owners who are unwilling to support the project. The City has informed both the public and the non-profit organizations about the progress made through monthly reports to the Los Angeles River Master Plan Advisory Committee.</td>
<td>O-11-10: Comment acknowledged. We concur. As you have suggested, existing City projects and City-owned land are priority opportunities for LARRMP implementation.</td>
</tr>
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<td>O-11-11: Comment acknowledged. We concur. These collaborations will become even more critical upon Plan adoption as specific projects move forward. Additionally, your participation is encouraged as the City’s Planning Department and Department of Transportation move forward in updating the Bicycle Plan and General Plan Transportation Element (to be renamed as the Mobility Element).</td>
<td>O-11-12: Comment acknowledged. We concur.</td>
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Letter O-12

Comments

O-12-1: This study was totally flawed from the beginning - severely hampered by an inappropriate narrow scope of work that precluded the requisite watershed approach. Absent a proper scope of work, any study conclusions are inherently flawed. The City of Los Angeles could have - and should have - done a better job upfront.

O-12-2: One of the key values articulated by the community during the public participation process, as noted on pg. 28, is a system-wide perspective toward the Los Angeles River. However, the scope of work that the planning team had to work within was limited to a very narrow corridor making that perspective impossible. The last paragraph on pg. 29 recognizes this, however the fact remains that while it may be beyond the scope of the plan as scoped, it certainly is not beyond the scope of the City’s responsibilities.

Responses

O-12-1: Comment acknowledged. Your comment has been passed on to the LARRMP planning team.

O-12-2: Comment acknowledged. Your comment has been passed on to the LARRMP planning team.
O-12-2: Comment acknowledged. Your comment has been passed on to the LARRMP planning team.

O-12-3: Comment acknowledged. Your comment has been passed on to the LARRMP planning team.

O-12-4: Comment acknowledged. Your comment has been passed on to the LARRMP planning team.

O-12-5: Comment acknowledged. Your comment has been passed on to the LARRMP planning team.

O-12-6: Comment acknowledged. Your comment has been passed on to the LARRMP planning team.

O-12-7: Comment acknowledged. Your comment has been passed on to the LARRMP planning team.

O-12-8: Comment acknowledged. Your comment has been passed on to the LARRMP planning team.
Relative to the Taylor Yard site, it appears that the team read neither The River Project's "Taylor Yard & Los Angeles River Preliminary Groundwater & Surface Water Study" nor the Coast Conservancy's "Taylor Yard Multiple Objective Feasibility Study"—both completed in 2002. Understand you very recently requested a copy of the Coastal Conservancy study, but it seems obvious that both of these should have been studied prior to developing any design proposals for the site—even conceptual ones.

The Chinatown-Cornfields proposal is particularly disturbing. It would require lining the bottom to create a recreation lake—again, an aesthetic treatment rather than an ecologically functional one. The island has concrete banks. The river itself would need to retain its concrete bottom in service of the proposed aesthetic. The previously proposed "Pueblo Lake" and its requisite rubber dams are clearly fundamental to this proposal. Therefore, it is requested that the numerous and substantive comments submitted on "Pueblo Lake" be included in the comments to this EIR. Those comments should demonstrate the unsuitability of such a proposal, especially in the context of restoring ecological function. Again, no bioengineering of the banks is proposed.

The proposal for the Downtown Industrial site relies again on rubber dams to accomplish an aesthetic objective rather than an ecological one—to allow for "the experience of water in the [concrete] channel bottom." Concrete banks are merely reconfigured, the total amount of hard space is increased and some box planters are introduced.

Recommendation #4.9 conflicts with the goal of restoring ecological function to the river and should be stricken.

Oddly enough, the site with the greatest potential to accomplish a high visibility "quick win" that would best meet the stated goal of restoring ecological function while also improving river aesthetics and visibility did not make the top five. The stakeholder group was given to understand that this was because other agencies were already involved at the site. However, that could also be said about Taylor Yard, so the real reason for the decision is unclear.

Opportunity Areas #2 and #3, Sepulveda Basin, is erroneously characterized on page 6.4 as having low potential to improve river aesthetics & visibility. This is one the site where the river is at its most natural. A significant reach remains unlined on the bottom and the banks. Yet it is largely invisible and inaccessible to the public. The stretch immediately upstream of this most natural stretch has the greatest potential for immediate ecosystem restoration. With funding from the Southern California Wetlands Recovery Project, the River Project has recently controlled and eradicated acres of non-native vegetation here. Its potential visibility is unmatched in Los Angeles, given its location in the center of a major recreation area and the crossing of the Orange Line busway. Yet the remnant and unnecessary concrete riprap banks remain, and the current interface between the river and the park is poorly designed.

Bioengineering both banks of the river throughout the basin and creating specific access points within the park would provide the public with a clear understanding of what this plan claims to be its ultimate objective. And it could be done in the very near term. The City has proposed creation of additional sports fields within this reach, yet refuses to consider bioengineered banks and an improved river interface as integral to the project. In fact, the only "improvement" proposed along the river was the addition of fencing. Hardly consistent with the public's vision for the river.

Another of the twenty sites in the valley offers the City a chance to act immediately on the plan's stated objective of acquiring key parcels of floodplain land when they become available. Opportunity Area #4 in Studio City includes an 18-acre piece of undeveloped riverfront land currently zoned as open space that could be immediately acquired. Yet current discussion about...
Comments

O-12-15
The site is limited to the amount of development that the City will support and the foregone assumption that the City will grant a zone change to facilitate it. If the City is at all serious about acquisition of key parcels of floodplain lands and restoration of ecological function, it must deny the applicants request for a zone change and work to acquire this parcel.

O-12-16
Focus attention on underused areas & disadvantaged communities' appears to be a new goal one not adopted by council when this plan was undertaken. Does this mean that if a stretch of river with great potential for restoring ecological function exists in an area with sufficient park space it would be a low priority?

O-12-17
Given the current and future challenges this City faces with respect to water supply, and the fact that the San Fernando Groundwater Basin is critical to our sustainable future, it is irresponsible to produce a long-range plan for the Los Angeles River that neglects to mention a revitalized river's role in this most important issue.

The document touts a 'transparent public process' as central to the plan. As a member of the Stakeholder Group, we would have to disagree. High attendance at meetings, edited powerpoint presentations and periodic update flyers with bullet points do not constitute transparent. Despite repeated requests for meeting minutes and assurances that they would be provided there has been NO available record of input provided by advisory, stakeholder, or peer review committees – not to mention no record of the task force input. Given the absence of public record, it is disingenuous to tout transparency, much less to claim that this plan accurately represents the public’s vision.

Couple of housekeeping notes: Pg 1.6 characterizes TreePeople, North East Trees, Arroyo Seco Foundation and The River Project as simply advocacy groups and credits only Mountains Recreation and Conservation Authority, Santa Monica Mountains Conservancy, Rivers and Mountains Conservancy & LA & San Gabriel Rivers Watershed Council with undertaking significant planning efforts. The Coastal Conservancy should be included in that second list.

In addition, it must be noted that TreePeople produced the Sun Valley Watershed Management Plan (with LA County) and the Hull House demonstration site; North East Trees has developed numerous greenway parks and with the Arroyo Seco Foundation produced the Arroyo Seco Watershed Management Plan; The River Project produced Tujunga/Pacotina Watershed Management Plan as well as earlier studies & planning efforts for Tujunga Wash, Taylor Yard and, with LA County, implementation of the Valleyheart Greenway. To group these organizations with Friends of the Los Angeles River as merely advocacy groups significantly downplays and diminishes the contributions of their scientific study, robust planning efforts and effective project implementation. Please consider rewriting those paragraphs to provide a more accurate representation of the facts.

O-12-19
References to Native Americans are inconsistent throughout the document. Recommend standardizing the usage 'indigenous Tongva peoples'.

O-12-20
Lastly, this plan should specifically prohibit new development within the historic floodplain.

Thank you for your consideration.

Melanie Winter
Director

Responses

O-12-16: Comment acknowledged. Your comment has been passed on to the LARRMP planning team.

O-12-17: Comment acknowledged. Your comment has been passed on to the LARRMP planning team.

O-12-18: Comment acknowledged. Your comment has been passed on to the LARRMP planning team.

O-12-19: Comment acknowledged. Your comment has been passed on to the LARRMP planning team.

O-12-20: Comment acknowledged. Your comment has been passed on to the LARRMP planning team.

O-12-21: Comment acknowledged. Your comment has been passed on to the LARRMP planning team.
O-13-1: Comment acknowledged.

O-13-2: Comment acknowledged. Please note that no definitive decisions regarding future land use zoning classifications will result from Plan adoption. These decisions will take place as community planning efforts move forward—including development of the River Improvement Overlay (RIO) district, the update to existing Community Plans along the River, and should any Specific Plans be initiated for particular areas. Please see the LARRMP Chapters 8 and 10 for information regarding next steps toward implementation and how the City’s community planning process will facilitate implementation of the LARRMP.

Also see the response to Comment T-43-1.
To suggest elsewhere in the Plan that new land use controls will be needed to “protect” businesses and uses from the land-value escalations that may arise, is contrary to sound land use planning and market dynamics.

Historically, land uses and businesses have re-cycled in Los Angeles. At one time, most of the San Fernando Valley was used for agricultural purposes by farmers and ranchers. At one time in the early 20th Century, much of what is Downtown Los Angeles’ business district was the site of stately residential mansions. At one time, Century City’s new burgeoning commercial/office area was the backdrop for Fox’s film studio. Should we have had “land use controls” implemented back then to “protect” the Valley’s farmers and ranchers from land value escalation? Should the City have refused to adopt the Century City Specific Plans, to keep the area studio-related uses forever? While in a different city, should the numerous pawn shops and thrift shops in what is today’s “Old Town Pasadena” have been protected from land-use escalations versus allowing market forces to bring about the vibrant retail, movie and restaurant uses that are there today?

When improvements are implemented along a corridor, in an area, or in this case — along the L.A. River — businesses will recycle and land uses will evolve — that has historically been Los Angeles’ and most cities’ response to change.

To suggest in this planning document that “land use controls will be needed to protect existing businesses and uses from land value escalations” seems inappropriate. What is being suggested in terms of protective “land use controls”? Rent control? City subsidies to businesses? New restrictive zoning laws?

Improvement to the L.A. River will likely have a positive economic effect on adjacent properties, whose owners are likely to, in turn, re-invest in their properties.

In summary, our comment is that the Plan’s recommendation for “land use controls” to “protect existing businesses and use” is inconsistent with the Plan’s goal of encouraging reinvestment and new job creation adjacent to the River. Private investment to improve properties in the area will be disincentivized by the proposed new land use controls.

The Plan provides little analysis related to how the new parks, pedestrian paths and recreational areas next to the River will be policed and how security will be maintained and adequately funded. The Plan provides this acknowledgement:

“...in several areas, the River has become a destination for homeless encampments or gang activity. Encouraging more beneficial use, while ensuring public health and safety through a variety of measures, could reduce these undesirable activities and make the River an amenity for all residents of Los Angeles.”

Our comment is that there is virtually no acknowledgement in the draft Master Plan of how policing measures will be implemented to protect the public from gang activity and homeless encampments in the newly created parks, pedestrian paths and recreational areas. Further, there is no evaluation in the Plan of costs associated with the need for additional police presence and response. An EIR is to include a detailed review of a proposed project, its potential adverse environmental effects, possible changes that can be made to reduce adverse effects, and possible alternatives. The discussion of security impacts and how those impacts will be addressed (as funded) in the EIR document is inadequate.
O-13-3

Location and physical characteristics of subject property:
Rol's primary property addresses are 2156 and 2185 East 7th Street - bordered by Myers Street, 7th Street, Mission Road, and Jesse Street. The property's location is shown in the map below.
Comments

The 2185 East 7th Street building is a 3-story structure, shown in the photograph below.

Responses

The 2185 East 7th Street building is a small structure (adjacent to the larger building), shown in the photograph below – it is the one-story, yellow-painted building.
In closing, Roll supports the L.A. River Revitalization Master Plan. We especially support the Master Plan’s goals to encourage reinvestment in the areas adjacent to the River. However, we feel that the Master Plan’s recommendation that “land use controls” be imposed on adjacent properties would bring the opposite result – a lack of reinvestment and a lack of new jobs in the area, as land use controls typically are a disincentive to private investment. And, lastly we believe that there needs to be a more thorough analysis related to security and crime control for new parkland, pedestrian pathways and recreational areas that will be created as part of the Master Plan, including an analysis of funding for the increased police presence that may be needed to protect recreational users/visitors and nearby properties.

Very truly yours,

Craig Cooper
General Counsel

c: Councilmember Jose Huizar, CD 14
Larry J. Kosmont, Kosmont Companies
March 16, 2007

Dr. Carol Armstrong  
City of Los Angeles  
1149 S. Broadway St., Suite 600  
Los Angeles, CA 90015

Dear Dr. Armstrong:

The following comments in regards to the PEIR/PEIS and Master Plan for the Los Angeles River Revitalization Project are provided by the San Fernando Valley Audubon Society.

Comments #1 - #4 apply to the PEIR/PEIS for the LARRMP.

1. It was stated in the PEIR/PEIS that “site-specific biological surveys would likely need to be conducted” as specific projects are undertaken. We believe that biological surveys should have been conducted as a part of this EIR/EIS process. The whole purpose and intent of requiring an EIR/EIS is to determine the environmental impacts or the existing conditions. That cannot be accomplished without knowing what those existing conditions are.

   It was also stated that high and potentially significant impacts could occur due to river channel modifications where there is existing high quality habitat (i.e. in the Sepulveda Basin and from Griffith Park to the Taylor Yard). However, these general comments have no value unless they are supported by data.

2. Alternative CC-B includes an island with passive recreation (hiking and bird watching). As an organization that is well known for its involvement in hiking and bird watching, we still would prefer to have all human recreation on this island prohibited. This is the only location on the entire length of the river that has the potential to be developed as an undisturbed breeding island for riparian dependent birds.

O-14-1: Comment acknowledged. It is important to reiterate that this PEIR/PEIS is programmatic, and evaluates “concept-level” planning in the LARRMP, based on available information. No resource-specific surveys or studies have been undertaken for this programmatic PEIR/PEIS, and these types of studies are expected to accompany project-level environmental analyses that will be required under CEQA and NEPA. It is anticipated that individual project-specific studies, surveys and evaluations will determine the significance of impacts on biological resources in a particular project area.

O-14-2: Comment acknowledged.
O-14-3: Comment acknowledged. We concur regarding the Sepulveda Basin diversity. The language in the paragraph titled: Birds in Section 3.7.1.2 will be modified to reflect this. Your list of species seen in the Sepulveda Basin will be included in the Final PEIR/PEIS as part of your comment letter, which is now part of the public record for the project.

O-14-4: Comment acknowledged. We concur. We will change language in the first sentence of Section 3.7.1.3 of the Final PEIR/PEIS, to read, “In general, the 32 mile stretch of the River in Los Angeles impacts very few federal- or state-listed endangered or threatened species. The U.S. Fish and Wildlife Service records indicate that Sepulveda Basin is a suitable habitat for the endangered least Bell’s vireo (Vireo bellii pusillus). All future specific projects within the River Corridor at the Sepulveda Basin would assess impacts on this species. It will also be determined on a project basis if similar assessments would be required at other locations within the River Corridor.”
Comments

Thank you for your attention to these details and for your continued work on this most excellent project.

Sincerely,

Kris Ohlenkamp  
President – SFVAS  
2367 Old Topanga Canyon Road  
Topanga, CA 90290  
(818) 225-8348  
Kris.ohlenkamp@sbcglobal.net

Responses
**Letter O-15**

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<th><a href="mailto:environmentalrep@stnc.org">environmentalrep@stnc.org</a></th>
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<td>To:</td>
<td><a href="mailto:engrpeirs@lacity.org">engrpeirs@lacity.org</a></td>
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**Comment Type:** Comment on EIR/DEIS  
**Subject:** LARRMP DEIR/DEIS

**Comment:**

**O-15-1:** Does the river master plan address the city's continued permitting the conversion of natural areas to impervious surfaces throughout the watershed? Until it does, the root cause of the catastrophic flooding from runoff can only get worse.

**O-15-2:** City must adopt the county's policies and establish a network of native plant rescue nurseries specifically designed to collect and propagate those local plants that are now lost to grading and development, and to preserve their unique genetic attributes.

**CC:** <environmentalrep@stnc.org>

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**Responses**

**O-15-1:** Comment acknowledged. The LARRMP discourages an increase of impervious surfaces within the vicinity of the River because these hardscapes exacerbate the conveyance of contaminated urban runoff into the River channel. Where possible, the Plan encourages the use of permeable surfaces to facilitate the capture, retention, and treatment of urban runoff. See, for instance, Plan Recommendations 4.3 to 4.5.

**O-15-2:** This comment was discussed with the LARRMP team and the City of Los Angeles BOE. The LARRMP is intended to be compatible with the County of Los Angeles Landscaping Guidelines and Plant Palette’s; see, for instance, Chapter 5’s discussion of the planned River Greenway.
O-16-1: The LARRMP stresses the importance of River-adjacent open space, and acknowledges this development, which is the subject EIR for the Valleyheart Senior Center project. Preservation of as much open space (preferably closest to the River) as possible and maintenance of public access to the River and its planned future amenities would be compatible with the LARRMP. The Valleyheart Senior Center Project EIR is under review by City staff and we have conveyed our comments, and the concerns of stakeholders who have already contacted us, to the Planning Department, which is the lead on this project.
All or a portion these 16 acres could be restored to natural riparian habitat, one of the few places along the entire 51-mile L.A. River where this is possible.

Because of its value as one of the few remaining open space areas in the San Fernando Valley, and as the last remaining unprotected, undeveloped open space along the Los Angeles River from Canoga Park to the 170 freeway, special care must be taken to ensure all potentially significant impacts of the project are properly studied in the LARRMP PEIR/PEIS and fully mitigated. The value of this property’s location on the Los Angeles River and its role as a key trail connector and public access point for the River Greenway must be analyzed and if feasible, be adopted.

Thank you for your consideration. We request to be placed on the mailing list for any future notices and documents.

Sincerely,

Art Howard
President
Studio City Residents Association
O-17-1: Comment acknowledged. Your comments were discussed with the LARRMP planning team. The overriding concern about the LARRMP not being a watershed-oriented plan relates to the original scope as proposed by the Los Angeles City Council. The scope of the LARRMP relates to the River Corridor, defined at approximately ½-mile on each side of the River and expanded at specific locations such as the Opportunity Areas. Nevertheless, there are valid issues in this letter that are either already addressed in the LARRMP, or that could be expanded.

(1) The specific volume of water that could be saved, recharged, and reused within the River Corridor is a study unto itself, and was not done for the following reasons: As mentioned in the letter, it’s more of a watershed-wide issue that needs a watershed-wide analysis. Projects within the River Corridor could not begin to provide the storage and infiltration of the rainfall volume moving to the ocean. Instead, the Plan seeks to use areas along the channel as demonstrations of what could be done outside of the study area, similar to what is being pursued by the IRP, the IRWMP, the Tujunga Wash study, the Sun Valley WMP, etc. As found on Page 3-9, “reduce and reuse stormwater runoff from developed areas. Both the Integrated Resources Plan (IRP) and the IRWMP call for a reduction and reuse of stormwater runoff volumes through onsite measures, such as reducing impervious surfaces, or using BMP’s to capture, treat, and infiltrate storm runoff. Performance targets vary, from a goal of reducing runoff by 50 percent (IRP) to reducing and reusing up to 90 percent of storm runoff from developed areas (IRWMP).”

(2) Without an overall study that, again, is watershed-based, it is impossible to estimate the amount of water that could be captured and it’s associated value. Further, within the River Corridor, the use of the open space and park areas proposed—as either recreation, habitat, or water quality—would need to...
O-17-1 (cont.): be decided before estimates of the water supply potential could be made. Still, the point of the comment is valid in trying to identify potential water supply benefits. In light of the above response, the Plan will be augmented with information that will aid decisions for water supply features.

The following text has been incorporated into Chapter 4 of the LARRMP 4:

“The Plan proposes a comprehensive system of water quality treatment facilities that include regional treatment, in-channel treatment, and on-site controls to deal with both runoff reduction and water quality treatment. In this regard, proposals are consistent with the Integrated Resources Plan, the Integrated Regional Water Management Plan, the City’s Stormwater Management Plan (currently underway), and is intended to be consistent with future City efforts at developing sub-area “loadings” of pollutants flowing to the River.

General locations for regional and in-channel treatment are specified, and illustrated sizing criteria and performance for in-channel treatment terraces have been evaluated to assess the feasibility of the concept. The in-channel water quality “treatment terraces” would be constructed above the elevation of a 50-year flood to minimize anticipated maintenance. The 50-year flood standard is viewed as a comparatively rare event that represents an acceptable level of maintenance risk from washout. While treatment within the channel does not provide credit toward Total maximum daily Load (TMDL) requirements, this Plan recommends that the City work with the Regional Water Quality Control Board to change this policy so that in-channel treatment could satisfy TMDL compliance requirements in the future.

A logical next step as the Plan moves forward into implementation is to develop specific pollutant removal targets for each type of constituent considered, and to develop removal goals for each geographic reach and for each scale of treatment.
O-17-1 (cont.): This must, of necessity, be coordinated among all of the planning efforts listed above, so that each effort reinforces the other.

Moreover, because many of these plans deal with treatment upstream in the watershed, either along a tributary or at a private, on-site location, performance goals need to be established that take this into consideration. This would entail defining treatment areas within the watershed at a level of specificity that was beyond the scope of this Plan. However, it is a very important “next step” in the development of an integrated, watershed-wide stormwater strategy. As noted repeatedly, the River cannot and should not be expected to be the treatment location “of last resort” for stormwater runoff originating elsewhere in the watershed.

An integrated approach to developing runoff reduction and water quality treatment goals would also be helpful in attempting to quantify benefits associated with conservation and groundwater recharge within the watershed. Captured and conserved, that water would have tremendous value for augmenting the region’s water supply. It is possible that the system-wide deployment of these projects could generate for other required water infrastructure systems enough local water value and savings to finance a major portion of this Plan’s implementation.”
the county’s Sun Valley Watershed Management Plan and the ongoing Integrated Regional Water Management Plan.

TreePeople staff members provided written and oral testimony on several occasions during the scoping phases of the LA River Revitalization planning process. We strongly recommended that, because its scope was limited to the river corridor, the plan must therefore include “functional and programmatic integration nodes” that would allow it to synchronize with other water-related and watershed planning efforts. The outcomes of those efforts are intrinsically interlocked with this plan and will affect its viability. While members of the planning team acknowledged these concerns, they don’t appear to have adequately addressed them in the plan.

Concerns detailed

TreePeople salutes the planning team for its extraordinary effort, and for including proven, state-of-the-art green infrastructure technologies as a central function in many of the landscape features along the river. Use of these technologies will have a great impact—slowing, cleaning, conserving and using some portion of the stormwater that rushes to the river. One problem is that the plan does not determine what portion of the stormwater its projects will intercept. Will it be as much as 50, 75 or 90 percent, or perhaps only 1 or even 0.5 percent of all the rainfall in an average year?

The plan acknowledges the need to remove pollutants from and reduce the volume and velocity of stormwater reaching the river. But it does not consider any stormwater flows that arrive from beyond the river corridor. There is a great risk that the volume and quality of stormwater from the river’s urban watershed will exceed the capture and treatment capacity of projects that the plan will build adjacent to the river. This will not necessarily create an increased flood threat, but it will expose the city and its citizens to the potential of millions of dollars in fines and costs for violating the Clean Water Act and exceeding Total Maximum Daily Loads for the river and its receiving waters. Even if the first phase of the River Revitalization Plan does not identify and plan specific watershed management projects outside the river corridor, it must develop policies that require and help finance such projects. Since pollution-reduction projects are anticipated through separate watershed planning efforts, it makes sense to link them so they can be scaled to include sufficient stormwater capture and conservation capacity to remove some of the burden from river-adjacent projects. Coordinating these efforts is the only way to make the revitalization dream both technically and economically feasible. This is an example of one of the "integration nodes" referred to above and in our scoping briefings.

A second and related issue is the plan’s failure to recognize and utilize the value of the water coming into the river. According to city figures, a 0.45-inch rainfall yields 1.7 billion gallons per day of runoff from the City of Los Angeles. Captured and conserved, that water would have tremendous value for augmenting the city’s water supply. Doing so would meet...
TreePeople Comments: Los Angeles River Revitalization Master Plan  
March 27, 2007  
Page 3

O-17-5

the goals of many of the city’s and region’s water-related plans (IRP, JRWMP, etc.). If the River Revitalization Plan were to integrate with, support and mandate adoption of these other efforts, it could become the catalyst and significant partner for constructing the watershed-wide system of capture and conservation projects. It is possible that the system-wide deployment of these projects could generate for other required water infrastructure systems enough local water value and savings to finance a major portion of the River Plan’s implementation. This is yet another integration node that must be addressed and evaluated as part of this plan’s EIR.

O-17-6

Opportunities from integration and emerging new priorities in the era of climate change

As described in one example above, the City of Los Angeles and this River Revitalization Plan can be the catalyst needed for implementing shared projects outside the river corridor, projects that are essential to the Revitalization’s success. Actively identifying these projects and integrating their planning with other agencies may make the difference in LA’s ability to compete for bond funds for all the projects. Nearly all the bonds require integrated planning efforts and truly multipurpose projects. Funding agencies have become quite sophisticated in separating programs that result from truly integrated processes from those that only claim to be integrated. The state’s bonding capacity is nearly consumed for the next 20 years because of the last round of infrastructure bonds. It’s critical that Los Angeles be as competitive as possible to access these funds for the river.

O-17-7

An integrated River Revitalization Plan implementation is directly linked to other critical needs and priorities for the mayor and the city. One example of a truly multiple-benefit, integrated approach would be developing “watershed parks” to green and stude campuses and protect students at most of LA’s schools. Using the watershed demonstrations at Broadouso and Open Charter Elementary Schools as models, these watershed park/play yards would provide part of the watershed’s water retention, conservation and pollution prevention services, while protecting student health, greening underserved neighborhoods, saving energy for air conditioning, and meeting the mayor’s call for establishing a park within walking distance of every child in Los Angeles.

Climate-change mitigation

As the city begins mobilizing every department to develop aggressive plans to address climate change, river revitalization gains even more impetus. Pumping water into Los Angeles is the single largest use of electricity in the state. Capturing and conserving the rainfall throughout the watershed could replace up to half of the water Los Angeles imports. Achieving a 50% reduction in water importation would produce a substantial benefit in climate-change mitigation. Once again, a fully-defined River Revitalization Plan must trigger these projects and has the integrated jurisdictional impact to do so.
Conclusion

The Los Angeles River Revitalization Plan contains a very hopeful and powerful vision. For that vision to be realized, the city must provide leadership and connect the river plan with other citywide and regional water and greening efforts. Although the current version of the river plan is critically deficient on these approaches and pathways to implementation, it’s not too late to address the issues before the plan is finalized.

The city has demonstrated its capacity to conduct efficient and effective integrated planning with the recently completed, and award-winning, Integrated Resources Plan. If necessary, there are significant partners, such as the Metropolitan Water District and the Los Angeles County Public Works Watershed Management Division, who have both the jurisdictional mandate and resources to help complete an integration-nodes element of the Revitalization Plan. We strongly urge the city to take this important step to ensure the plan meets its promise and potential.

TreePeople stands ready to provide guidance to the city in the integration process. We look forward to hearing from you with questions to clarify these comments. We’re happy to help provide answers.

Thank you for your consideration.

Sincerely,

Andy Lipkis, President
Letter O-18  

Comments

February 27, 2007

Members of the L.A. City Council’s Ad Hoc River Committee
Los Angeles City Hall
200 North Spring Street
Los Angeles, CA 90012

Re: Questions about Los Angeles River Revitalization Plan

Dear Honorable City Councilmembers:

O-18-1: Comment acknowledged. Your comments have been discussed with the LARRMP planning team.

O-18-2: The LARRMP is a vision document that suggests how River-adjacent change might take place in response to River improvements. To that end, future job figures are approximated in relation to those that may result from the potential investments proposed within the vicinity of four of the Opportunity Areas (See LARRMP Chapter 7.). The LARRMP does not propose definitive changes to existing jobs and businesses; such decisions would involve the City’s prevailing community planning process, which is discussed in Chapter 8 of the LARRMP. Issues central to implementation of the Plan, such as job and housing impacts are discussed in LARRMP Chapter 10.

O-18-3: The LARRMP does not advocate the taking of homes and businesses—it is a vision document that suggests how River-adjacent change might take place in response to River improvements. Impacts to housing in specific locations cannot be determined at this time, but will be addressed in a comprehensive, open, and transparent process—through the City’s community planning process and through subsequent project-level environmental analyses. The LARRMP recognizes the need to update existing Community Plans in River-adjacent areas through an extensive and inclusive community involvement process. (See Chapter 8 of the LARRMP.) That Community Plan update process will enable assessment of impacts on housing, loss of affordable housing, jobs, as well as on issues related to zoning modifications, gentrification, and preservation of community standards in terms of community stability and makeup. This is a stakeholder-driven process that is best suited to gauge community support. The LARRMP is intended to result in an equitable distribution of benefits and supports the retention and strengthening of stable residential areas, balancing these aims with a long-term program to acquire properties for flood protection and River improvements. All measures, including inclusionary zoning, equitable distribution of

Responses

O-18-1: Comment acknowledged. Your comments have been discussed with the LARRMP planning team.

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O-18-4

O-18-5

O-18-6

O-18-7

O-18-8

O-18-9

VICA appreciates your consideration of these thoughts. In the near future, VICA will formally accept a position on the L.A. River revitalization plan. In the meantime, we kindly ask that you keep an open mind to all stakeholders involved in this process as well as keeping in mind the unintended consequences of any decisions that may eventually impact jobs and our business climate. Thank you for your attention.

Sincerely,

Brigdon J. Ninemire
President

5121 Van Nuys Blvd, Suite 203, Sherman Oaks, CA 91403
Tel: 818.817.0545 Fax: 818.907.7934 http://www.vica.com
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<td>O-18-3 (cont.): benefits, and rent and job stabilization strategies, would be available to the community as they take part in developing their Community Plan revisions. The LARRMP does not suggest the net removal of any housing, but recognizes that should a decision be made to do this in the future, it should include proper compensation—such as through a voluntary buy-back program, replacement, and if necessary, relocation assistance/compensation within the neighborhood per the policies of the City of Los Angeles Housing Authority. Moreover, no eminent domain would be used without triggering the California Environmental Quality Act. This means that the public will have full knowledge and opportunity to comment on any future project component that involves eminent domain. Both the RIO district creation and the Community Plan revisions will ensure future stakeholder input per City of Los Angeles procedures and policies.</td>
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<td>O-18-4: Comment acknowledged. Issues such as impacts to homeless persons living within the River area are related to governance and management of the River Corridor and are intended to be addressed through implementation of the LARRMP’s recommended 3-tiered governance structure. The new structure is intended to improve collaboration across jurisdictions and result in public service delivery improvements, including the issues of maintenance, public access, and safety.</td>
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<td>O-18-5: To achieve meaningful open space development, LARRMP projects will likely extend beyond the River right-of-way because more land may become available that is suitable for open space use. The Plan’s concepts illustrate what this might look like in the future; however, any and all parcels that might be acquired for open space (or any future LARRMP use) would be subject to project-level analysis. Since the Plan does not provide any definitive decisions regarding future land acquisition for open space creation, no reliable cost information can be discussed. However, the LARRMP does include rough cost range estimates for potential future projects in the</td>
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O-18-5 (cont.) : final draft (See Chapter 10).

O-18-6: Comment acknowledged. A variety of public and private sector projects may already be in development or planned for development along the River Corridor. The LARRMP, should it be adopted, intends to facilitate improved communications with River-adjacent developers so that future projects will be compatible with the LARRMP’s goals and objectives. The River Improvement Overlay (RIO) district is one example of how compatibility with the LARRMP can be encouraged—such as through guidelines for landscaping, building-orientation, and water conservation practices. See Chapters 8 and 10 of the LARRMP for details concerning the RIO and its implementation.

O-18-7: Please see responses to L-5-4 and L-5-8, above.

O-18-8: Comment acknowledged. We concur that it is advisable to work to prioritize the preservation, enhancement, and expansion of existing green and open space resources. The LARRMP does recommend providing access to all residents within the River Corridor by providing new open space and recreational facilities in locations where they currently do not exist. The Plan is a vision document and does not advocate the displacement of residents and businesses. Such decisions would be made on a project-by-project basis and be subject to further environmental review and public involvement. See, e.g., the discussions regarding community planning (in LARRMP Chapter 8) and implementation (in LARRMP Chapter 10).

O-18-9: Comment acknowledged. Your comment has been passed on to the LARRMP planning team.
I-1-1: In the Final PEIR/PEIS, specific language from your comment will be added to Section 4.4.8 (Mitigation Actions and Best Management Practices) regarding soils, and to Section 4.11.2.1 (General Types of Impacts and Mitigation) regarding potential HTRW in the River Corridor.

From: <bowingpaia@yahoo.com>
To: <engpms@iocty.org>
Date: 2/26/2007 9:05:14 AM
Subject: LA River HREP Site - Comment on EIR/EIS

Comment Type: Comment on EIR/EIS
Subject: L.A. River
Comment:
In the Canoga Park area of your revitalization, please have DTSC, DHS, and EPA check the soils and water for dioxins before you develop.
I-2-1: Comment acknowledged. This comment was discussed with the LARRMP team and the City of Los Angeles BOE. The LARRMP discusses the Arroyo Seco Confluence as one of its Opportunity Areas in Chapter 6. Although it is not one of the five major opportunity areas, the connections between the Arroyo Seco and the Los Angeles River Corridor are recognized as having the potential for expanded development of recreation and ecological revitalization. The City would welcome project proposals from local stakeholders and adjacent interested communities involving including the Arroyo Seco in the future implementation of the LARRMP.
I-3-1: Comment acknowledged.

I-3-2: The LARRMP addresses safety through a variety of means. As it discusses the possibility of increased risk of drowning, there are many ways with which this could be minimized and avoided. Sirens, electronic alarm systems and billboards, as used with Rio Besos in Barcelona, Spain, would be one option. In addition to its environmental improvements, the Plan proposes educational enhancement and recreational benefits—each would provide local youth with opportunities that are currently scarce in river communities.

I-3-3: The project area has already experienced increases in land prices, which has put a strain on the affordable housing and small business sectors. The Plan recognizes the need to update existing Community Plans in river-adjacent areas through an extensive and inclusive community involvement process. That Community Plan update process will enable assessment of impacts on housing, loss of affordable housing, jobs, as well as on issues related to zoning modifications, gentrification, and preservation of community standards in terms of community stability and makeup. This is a stakeholder driven process that is best suitable to gauge community support. An overall goal of the Plan is to encourage the retention and strengthening of stable residential areas, and to balance these with a long-term program to acquire properties for flood protection and River modifications. All measures, including inclusionary zoning, equitable distribution of benefits, rent and job stabilization, would be available to the community as they take part in their community planning processes and in the evaluation of specific projects.
I-4-1: The LARRMP stresses the importance of this river-adjacent open space, and acknowledges this development, which is the subject EIR for the Valleyheart Senior Center project. Preservation of as much open space (preferably closest to the River) as possible and maintenance of public access to the River and its planned future amenities would be compatible with the LARRMP. The Valleyheart Senior Center Project EIR is under review by City staff and we have conveyed our comments, and concerns of stakeholders who have already contacted us to the Planning Department, which is the lead on this project.
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<td>A staging area for the river, for public access, it would be used for walk Quality treatment under the surface. It could be a piece of the bikeway. Walkway trails along the bike. This is the least place of unimpacted open space from Canada Park to the 170 freeway, abutting the LA River. Please consider this proposal as your city's will plan to minimize the negative impact of the proposed Valleyheart senior community, which has damaging impacts on the LA River. Thank you for your consideration. Please keep me on mailing list for future notice. Sincerely,</td>
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I-5-1: Comment acknowledged. The LARRMP PEIR/S incorporates the Integrated Resources Plan (IRP) project approved by the Los Angeles City Council in 2006 by reference. The IRP advocated, in addition to upgrading the water and wastewater treatment plants, the reuse of up to 53,000 acre-feet per year of recycled water for non-potable use, and management of 42 percent of the City’s dry weather and 47 percent of the wet weather urban runoff. The net effect of all these projects would be to reduce contamination and prevent further degradation of the watershed. The LARRMP is designed to support these upstream efforts.

I-5-2: The LARRMP PEIR/S incorporates the Integrated Resources Plan (IRP) project approved by the Los Angeles City Council in 2006 by reference. The IRP advocated, in addition to upgrading the water and wastewater treatment plants, the reuse of up to 53,000 acre-feet per year of recycled water for non-potable use, and management of 42 percent of the City’s dry weather and 47 percent of the wet weather urban runoff. The net effect of all these projects would be to reduce contamination and prevent further degradation of the watershed. The LARRMP is designed to support these upstream efforts.

I-5-3: Comment acknowledged. The River Improvement Overlay (RIO) is intended to provide similar guidelines.

I-5-4: Comment acknowledged. By definition, the LARRMP proposes modifications beyond the river channel.

I-5-5: Comment acknowledged. The LARRMP discusses the community planning process in Chapter 8.

I-5-6: Comment acknowledged.

I-5-7: Comment acknowledged.

The Notice of Availability project description states:

The Los Angeles River Revitalization Master Plan (LARRMP) is intended to serve as a blueprint for implementing a variety of greening projects, including the development of parks and open space, pedestrian and bicycle trails, bridges, enhanced connector streets, channel modifications, ecological restoration, revitalized riverfront communities in key opportunity areas, and recommendations for a River Improvement Overlay (RIO) district along the 32-mile stretch of the river within the City of Los Angeles. Implementing LARRMP recommendations over the near-term planning period (5 to 20 years) and the long-term period (20 to 50 years) constitutes the proposed action evaluated in the draft PEIR/FEIS.

To start off with, the River is about water flow and over flow also known as flooding. Water quality is an issue here as the EPA has imposed guidelines and potential fines for non-compliance. Public Health and Safety should be the blueprint for the master plan as these categories guides the State law.

I-5-2

The protection of the river and urban streams should be the goal. What are the projects to prevent contamination and degradation of the watershed?

Urban greening projects should have guidelines that reduce energy consumption, conserve water, improve air and water quality, and provide other community benefits including the use existing public lands and service to those communities with the greatest need. None are stated.

I-5-3

Parks and open space, pedestrian and bicycle trails, bridges, enhanced connector streets and revitalized riverfront communities are part of Community Plans and Specific Plans, not of a Flood Control Channel.

I-5-4

Opportunity areas are outside of the River and part of the surrounding community and subject to each specific Community Plan and the public participation required for same.

I-5-5

The River Improvement Overlay (RIO) belongs in the City Planning Department and not subject to the Bureau of Engineering playing a key role in that process.

I-5-6

Long-term planning of 20 to 50 years is that of infrastructure, which is not addressed in this opening statement.

I-5-7

Urban stream restoration not just ecological restoration is more the proper category.
I-5-8: Comment acknowledged.

I-5-9: Comment acknowledged. It is important to reiterate that this PEIR/PEIS is programmatic, and evaluates “concept-level” planning in the LARRMP, based on available information. No resource-specific surveys or studies have been undertaken for this programmatic PEIR/PEIS, and these types of studies can be expected to accompany project-level environmental analyses that will be required under CEQA and NEPA. It is anticipated that individual project-specific studies, surveys and evaluations will determine the significance of impacts on particular resource areas. All future, site-specific projects will have their own environmental review, public outreach and decision making phases where specific physical modifications would be examined and analyzed in detail.

I-5-10: Comment acknowledged.

I-5-11: Comment acknowledged. “Multi-purpose revitalization,” whether in the Opportunity Areas or along the River Corridor, refers to the several uses upon which the participating public has provided input. These do not just include opportunities for economic development, but also water quality, habitat restoration, recreation, and open space. The LARRMP was developed through a thorough public review and participation-driven process.

I-5-12: “Improved natural habitat” indicates the Plan’s intention to increase or expand areas of existing, identified habitat so that these may attract a greater number and variety of species and begin to form more substantial habitats that can be linked within and outside the River Corridor. Natural habitat elements will be incorporated into greenways, parks, wetlands, buffer strips, etc. Synthetic turf is not proposed for use in any of the park areas proposed in the Plan. All landscaped areas will conform to the Los Angeles River Master Plan Landscaping Guidelines and Plant Palettes (January 2004), which requires the use of native, drought-tolerant plants that provide habitat for indigenous wildlife and avifauna.
I-5-13: “Economic values” refers to the recognition that the proposed greening improvements in and near the River channel will also catalyze additional economic investments in River-adjacent communities.

I-5-14: Comment acknowledged. A variety of private sector projects may already be in development or planned for development along the River Corridor. The LARRMP, should it be adopted, intends to facilitate improved communications with River-adjacent developers so that future projects will be compatible with the LARRMP’s goals and objectives.

I-5-15: Comment acknowledged. Any proposed improvements to the channel will require maintaining or enhancing existing flood control capacity, as described on page 4-7 of the Master Plan.

I-5-16: Comment acknowledged. Please refer to pages 4-18 through 4-21 of the Master Plan.

I-5-17: Comment acknowledged. Each of these must be addressed in concert because of the impacts one has upon the others. Public access to the River is not incompatible with achieving water quality, flood control, and public safety objectives. To address public safety considerations, a variety of measures will be employed, including ramps and steps to provide easy egress from the channel, signage, warning sirens, and fencing, as described on page 4-15 of the Master Plan.
I-5-18: “Economic Growth” is discussed in the LARRMP’s Chapter 7, which outlines the potential economic effects of revitalization — defined as increased revenues (e.g., job creation, wages earned, and tax revenues) that would be generated by a sequence of activities. Chapter 7 also analyzed potential revenue generated from land development strategies. And there are also economic returns from water quality improvements, habitat improvements, recreational amenities, and open-space aesthetics.

I-5-19: Comment acknowledged and discussed with LARRMP planning team. The LARRMP represents a vision for change, improvement, restoration, and other transformative activities. In the context of habitat preservation, there is currently little habitat to preserve within the River Corridor, but we concur that where it does exist and when it does exist in the future, preservation should be an overt priority.

I-5-20: Comment acknowledged, and was discussed with the LARRMP planning team. Many of these aspects (e.g., “prevent harm or damage to persons…control of erosion, the control and elimination of exotic species, prescribed burning, fuel hazard reduction”) fall within City, County, or Resource Agency standards for project implementation and would naturally be part of any future design of individual projects.

I-5-21: Comment acknowledged. Many of these aspects (e.g., “prevent harm or damage to persons…control of erosion, the control and elimination of exotic species, prescribed burning, fuel hazard reduction”) fall within City, County, or Resource Agency standards for project implementation and would naturally be part of any future design of individual projects.

I-5-22: The River Management structure will involve public input and review. It is intended to be a transparent process and would not contradict any prevailing laws and policies regarding public involvement.

F-150
I-5-23: All of these agencies have been and will continue to be consulted as the LARRMP is implemented.

I-5-24: Please refer to pages 4-18 through 4-21 of the Master Plan.

I-5-25: Yes. Please refer to responses above regarding land use planning issues. Additionally, water management programs and projects are covered in the previously cited IRP EIR and the IRWMP.

I-5-26: Please note response to preceding comment. Environmental justice and community impacts were discussed in the above referenced documents. The LARRMP is intended to result in an equitable distribution of River improvements. Continued coordination with the applicable agencies and organizations throughout the watershed is expected to result in both water supply and water quality equity.

I-5-27: These issues are part of the mandate for the Joint Powers Authority that is recommended as one part of the 3-tiered governance structure of the LARRMP. The governance structure is intended to result in public service delivery improvements, such as those regarding access, maintenance, and public safety.

I-5-28: Comment acknowledged.

I-5-29: Comment acknowledged. Any proposed improvements to the River channel must maintain existing flood control capacity, as indicated on pages 4-7 and 4-8 of the Master Plan.

I-5-30: Comment acknowledged. These types of detailed information will be generated at the time projects are proposed for implementing the LARRMP.
<table>
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<tr>
<th>Comments</th>
<th>Responses</th>
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<td>(cont.)</td>
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<tr>
<td>I-5-31: Comment acknowledged. The City has established policies on emergency preparedness and response; the LARRMP is not intended to contradict these. The Plan’s recommended 3-tiered governance structure would provide oversight regarding this issue and each project would be subjected to an analysis of impacts to this issue during its CEQA compliance evaluation.</td>
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<tr>
<td>I-5-32: Comment acknowledged. Any future LARRMP projects with groundwater impacts—including infiltration and storage—will be coordinated with applicable agencies and jurisdictions. For instance, the City’s Department of Water and Power was involved in the LARRMP from the beginning.</td>
<td></td>
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<tr>
<td>I-5-33: The Santa Monica Mountains Conservancy was consulted in developing the LARRMP.</td>
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</table>
Comments

I-5-33 | A watershed protection activities throughout the watershed of the Upper Los Angeles River pursuant to Section 79508 of the Water Code.
I-5-34 | Where is the coordination with the Rivers and Mountains Conservancy on the watershed?
I-5-35 | Where is the coordination with the University of California on the Natural Reserve System?
I-5-36 | No mention is made of the Natural Community Conservation Plan.
I-5-37 | How is the Department of Health Services being incorporated to meet safe drinking water standards and reduction of chemical and nitrate contaminants?
I-5-38 | What are the contingency plans for a potential earthquake, flood, natural disaster or terrorist attack occurs?
I-5-39 | What are the provisions for Inspections, Audits and Prosecutions?
I-5-40 | How is the Public being protected by the laws of the Federal Constitution, State Constitution, County Charter and City Charter?

EXECUTIVE SUMMARY

I-5-41 | The comments above apply. What are the environmental criteria for “community awareness and pride?”
Open Space Development

Open space development includes parks described as riverfront parks, linear parks, pocket parks, and recreation field, green streets, pedestrian walkways/river access points and promenades; trails, paths and bikeways; pedestrian river crossings and bridge underpasses; river loops; gateways, and water quality and habitat.

I-5-42 | Omitted is the description of Watershed as Open Space Development and Water Quality and Water Supply Development.

Five Opportunity Areas

I-5-43 | The five Opportunity Areas were chosen for “long-term economic viability and sustainability within a revitalized River Corridor.” Where is WATER the issue?
I-5-44 | In all of the opportunity areas, is the science and measurement of Water Quality and where are the plans to reduce contaminates, both wet weather and dry weather and at what timetable for compliance?
I-5-45 | What are the anticipated costs and what best management practices are being used?
I-5-46 | Where are the California High Speed Rail and the mitigation of that effect?

Revitalization Management

The summary reads:

As discussed in the LARRMP, the successful implementation of the LARRMP will require the collaboration and cooperation of the governing jurisdictions (City of Los Angeles, Los Angeles County, US Army Corps of Engineers) and the other agencies responsible for the safe and proper functioning of the Los Angeles River. A “river authority” is proposed in the LARRMP to coordinate the functions of these agencies. The LARRMP identified the need to provide guidance and leadership in implementing measures and developments within the River Corridor, and the need was identified to create a nonprofit “river foundation,” to raise funds to achieve the LARRMP revitalization goals and objectives. These key river revitalization management entities are described below, followed by a discussion of other revitalization management tools to help implement the LARRMP.

I-5-47 | 

Responses

I-5-34: Comment acknowledged. The organizations consulted in the planning process do not comprise an exhaustive list. The implementation of LARRMP projects can certainly involve the Rivers and Mountains Conservancy.

I-5-35: Comment acknowledged. The organizations consulted in the planning process do not comprise an exhaustive list. The implementation of LARRMP projects can certainly involve the University of California Natural Reserve System.

I-5-36: Comment acknowledged. We have added a paragraph describing the NCCP to Section 4.7.1.1.

I-5-37: This subject was covered in the previously cited IRP project which involved consultation with the Department of Health Services.

I-5-38: Comment acknowledged. The LARRMP will not contradict prevailing emergency response plans.

I-5-39: Comment acknowledged. The LARRMP, if adopted, would be implemented in a manner that adheres to the City’s prevailing policies regarding performance measurement and recordkeeping.

I-5-40: Comment acknowledged. The LARRMP, if adopted, would be implemented in a manner that adheres to the prevailing, applicable local, regional, state, and federal laws.

I-5-41: Comment acknowledged. Community awareness of the River and pride in it are understood to be fundamental to the River’s environmental health because informed and engaged residents that understand the River’s environmental importance would be more likely to prioritize the protection and preservation of its environmental integrity.

I-5-42: Comment acknowledged. Each of these—the watershed, water quality, and water supply—may be linked to open space development even though not explicitly included in this passage. The use of “includes” is intended to infer that other possibilities exist.
I-5-43: Comment acknowledged. Viability and sustainability within the River Corridor is intended to imply consideration of water impacts since the River is the central resource addressed in the LARRMP. Also, please refer to the previously cited IRP EIR and the IRWMP. Additionally, the City’s Bureau of Sanitation’s Watershed Management Division is preparing TMDL implementation plans to meet the requirements and regulations of the Regional Water Quality Control Board.

I-5-44: Comment acknowledged. Please see response directly above and refer to Chapter 5 of the LARRMP regarding particular water quality-related recommendations. Performance measurements to ascertain the success levels of these recommendations in implementation would be developed on a project-by-project basis using relevant local data, including hazardous and toxic materials and sites data.

I-5-45: Several BMPs are identified in Chapters 4 and 5 of the LARRMP, including water quality wetlands, treatment terraces, permeable pavement, biofiltration infiltration strips, and even sustainable construction practices. Costs for various project features are shown in the tables in Chapter 10 of the LARRMP.

I-5-46: Comment acknowledged. The California High-Speed Rail project will be evaluating a variety of extension alignment alternatives in the environmental review process of its three main proposed extensions. These processes are beginning in Spring 2007; City staff will coordinate with High Speed Rail representatives on future implementation issues within the River Corridor.

I-5-47: Comment acknowledged. No definitive decisions have been made regarding the composition of participation in the LARRMP-recommended governance structure. These decisions will be made subsequent to Plan adoption.
I-5-47 (cont.): The new governance structure would adhere to all applicable laws of the involved jurisdictions and is intended to result in better coordinated, improved public service delivery within the River Corridor.

I-5-48: Comment acknowledged.

I-5-49: Comment acknowledged. The proposals of the LARRMP are intended to result in a transparent and accountable governance structure that will improve public service delivery within the River Corridor without contradicting the City Charter or State and Federal Constitutions.

I-5-50: Comment acknowledged. No definitive decisions have been made regarding the composition of the proposed River Foundation or its financing. The Foundation is intended to be a philanthropic organization that will focus both public and private sector attention on issues of concern within the River Corridor.

I-5-51: Comment acknowledged.
I-5-52: Comment acknowledged. See response to I-5-50 above.

I-5-53: Comment acknowledged.

I-5-54: Comment acknowledged. The LARRMP-proposed RIO would be implemented in accordance with existing community planning procedures and would be overseen by the City Planning Department.

I-5-55: Comment acknowledged.

Comments

I-5-52
Since the "foundation" has no boundaries, do you propose that "private individuals" and "private funding" come from foreign sources?

River Improvement Overlay (RIO) District
The summary reads:

I-5-53
This section negates the Community Planning process, Community Plans, Specific Plans, City Committees and the Public Process.

Why would you need Public Art in this section if not to cover the Santa Monica Mountains Conservancy May 22, 2006 adoption of Resolution No. 06-40 authorizing a $175,000 Grant of Proposition 50 Funds to the Social and Public Art Resource Center for Planning and Development of "Revising the Forgotten History of Los Angeles: The Los Angeles River, The Great Wall of Los Angeles and the Heritage Parkscape" Project?

Where did the Public have a voice in that decision? Certainly, the Santa Monica Mountains Conservancy is appointed, not elected.

Again, more Communist governance is secretly slipped into this plan.

Future Specific Plans
The summary reads:

I-5-54
For future specific plans for lands near the river, planning guidelines would be proposed covering topics such as site plans, landscaping, site lighting, building orientation, building setbacks, building density, parking lot lighting, green architecture, and signage. Although future implementation tools, such as specific plans and rezoning may take place within the boundaries of the RIO District, the integrity and function of the RIO District is anticipated to be maintained.

This clause is obviously there to supersed any General Plan or Community Plan amendments by a blank smudging definition of a specific area undefined by a voter district.

Potential Impacts and Mitigation
The summary reads:

I-5-55
The conclusions present in this PEIR/PEIS are based on a programmatic-level evaluation of potential impacts from future LARRMP implementation projects. There could be potentially significant adverse impacts from certain aspects of air quality, water quality, biological resources, land use, noise, public health and safety, transportation, socioeconomic resources, environmental justice, and cultural resources. Furthermore, impacts from the remaining six environmental resource areas (agricultural resources; geology, soils; and seismic hazards; mineral resources; recreation; utilities and infrastructure; and aesthetic resources) are not likely to be significant. Beneficial impacts are expected from certain aspects of air quality, water quality, biological resources, recreation, and aesthetic resources.
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<th>Comments</th>
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<td><strong>I-5-55</strong></td>
<td><strong>I-5-56</strong>: Comment acknowledged.</td>
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<td><em>The impacts are flawed and significantly underestimated in every way on every category. The floodplain should be based on 100 years and not 50 years. There are no indications of tributary flows into the river and their impact. Deaths and property damage can be anticipated with this plan. Costs attributed to a disaster and the aftermath could reach in the trillions. That is a significant adverse impact.</em></td>
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<td><strong>I-5-56</strong></td>
<td><strong>I-5-57</strong>: Comment acknowledged.</td>
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<td>The obvious goal of this plan is land use. And with that, the LARRMP is a plan for disaster and excess housing development in hazardous and contaminated land with disregard for water and watershed issues including flood control, water quality and water supply. No consideration is given to those disadvantaged communities other than to use their status to further enhance the wealth of those who know how to work the system of &quot;public benefit&quot; for personal gain.</td>
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<td><strong>I-5-57</strong></td>
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<td>All potential impacts are significant adverse impacts.</td>
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Joyce Dillard  
P.O. Box 31377  
Los Angeles, CA 90031

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Looking for earth-friendly autos?  
Browse Top Cars by "Green Rating" at Yahoo! Autos' Green Center.  
http://autos.yahoo.com/green_center/
I-6-1: Comment acknowledged. Designs of rubber dams that may be proposed as elements of future LARRMP projects will be evaluated for the impacts mentioned in your comment. It is envisioned that existing flow would be maintained once the ponded water reached design depth, so that a steady-state inflow-outflow takes place (minus evaporation that would increase due to the increased surface area). The rubber dams discussed in the LARRMP are envisioned to have intermittent use, so that the water elevations behind the dams are maintained for aesthetics and recreation when water quality improvements allow their prudent use. The water is not intended to be stagnant, but rather would have continuous albeit slow flow. This, and other means of mosquito control (ability to raise, lower, or eliminate the water levels, and providing maintenance activities such as vegetation control and potential, controlled use of larvicides), are effectively used in wetlands across the region. Additional design details will be identified during later phases addressing energy, costs, monitoring, and the potential for the dams to assist in meeting sediment and trash TMDL’s, through negotiation with the State Regional Water Quality Control Board related to in-channel restrictions. As a riparian corridor is developed within the channel bottom, the continued use of rubber dams or other temporary ponding devices would be evaluated for their effect on habitat quality, and where necessary to support habitat goals, these devices would be discontinued.
I-7-1: The LARRMP does not promote narrowing of streets, increasing traffic on overburdened infrastructure, and increasing density. As noted in the previous response, there is going to be project-by-project study, evaluation, mitigation, and public participation efforts as each future site-specific project gets implemented. As for land use, zoning, and density related issues, please see the response to Comment O-11-1.

I-7-2: The LARRMP recognizes the need to update existing Community Plans in river-adjacent areas through an extensive and inclusive community involvement process. That Community Plan update process will enable assessment of impacts on housing, loss of affordable housing, jobs, as well as on issues related to land use changes, such as zoning modifications, gentrification, and preservation of community standards in terms of community stability and makeup. This is a stakeholder driven process that is best suited to gauge community support. The overall policy of this plan is to encourage the retention and strengthening of stable residential areas, and to balance these with a long-term program to acquire properties for flood protection and River improvement. All measures, including inclusionary zoning, equitable distribution of benefits, and rent and job stabilization strategies, would be available to the community as they take part in developing their community plan revisions. The Plan does not advocate net removal of any affordable housing without proper compensation, replacement, and if necessary, relocation assistance/compensation within the neighborhood per the policies of the City of Los Angeles Housing Authority.

No eminent domain will be used without triggering the California Environmental Quality Act in subsequent phases of this project. This means that the public will have full knowledge and opportunity to comment on any future project component that involves eminent domain. Both the RIO District creation and the community plan revisions will ensure future stakeholder input per City of Los Angeles procedures and policies.
I-18-2 (cont.): Lastly, the LARRMP’s proposed 3-tiered governance structure is expected to result in public service delivery improvements regarding the issues you have raised.

Comments

A couple of years ago, while searching for an armed suspect in the intersection of the 2 & 5 Freeways, my LAPD SLO described a network of tunnels carved into the brush leading to rooms also carved from the brush where there were many homeless encampments. You can expect more homeless encampments like this along the river-adjacent freeways in the future if you don’t have a plan for dealing with all homeless as you push these out of the river. The freeways are not a good place for homeless to live.

The PEIR did not even address the economic impacts of the River Master Plan in the Taylor Yard Study Area—an area which already has a huge homeless population. The PEIR did not even address the true cost of relocating the homeless and cleaning up their encampments. CD13 did a pilot program involving many different agencies to relocate the homeless from the riverbed and clean up trash in the fall of 2006. Perhaps you should check with Mitch O’Farrell in CD13 for a cost estimate on this program for just a one-mile stretch of the river.

The PEIR only gives lip service to the homeless issue. Clearly it is a major issue in the Taylor Yard Study Area; it must be elsewhere along the river too.

I feel the PEIR should be reassessed for the economic and public safety effects of the homeless issue as well as it more clearly stated that individual project-specific EIRs be done for any street widening or zone changes, not just an Initial Study Checklist.

Responses

I-7-2 (cont.): Lastly, the LARRMP’s proposed 3-tiered governance structure is expected to result in public service delivery improvements regarding the issues you have raised.
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<th>Comments</th>
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<td>Diane Edwards</td>
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<td>2630 Corralitas Dr</td>
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<tr>
<td>Los Angeles, CA 90039</td>
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<tr>
<td>323-666-1392</td>
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I-8-1: Comment acknowledged.
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<th>Letter I-9</th>
<th>Comments</th>
<th>Responses</th>
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| **I-9-1** | Please study the effects on the River Plan that the development proposal for the property adjacent to the River near the cross streets Ventura and Whitsett in Studio City (now Studio City Golf & Tennis) would have. This is currently private property zoned A-1, but the owners want to secure a zone change in order to be able to build a massive development that could block opportunities for the LARRMP, including river access.  
*Please include me on any future communications about this project.*  
Thank you for your consideration.  
Sincerely,  
Kathy Hassett  
4211 Teesdale Avenue  
Studio City, CA 91604  
hassettla@aol.com | I-9-1 Comment acknowledged. The LARRMP stresses the importance of River-adjacent open space and acknowledges this development, which is the subject of an EIR for the Valleyheart Senior Center project. Preservation of as much open space (preferably closest to the River) as possible, and maintenance of public access to the River and its planned future amenities would be compatible with the LARRMP. City staff are reviewing the Valleyheart Senior Center Project EIR, and we have conveyed our comments and concerns of stakeholders who have already contacted us to the Planning Department, which is the lead on this project. |
I-10-1: The Community Plan update process, which will follow the adoption of this plan, will enable assessment of impacts on zoning modifications, gentrification, and preservation of community standards in terms of land use issues and community stability and makeup. This is a stakeholder driven process that is best suited to gauge community support. The overall policy of this plan is to encourage retaining and strengthening stable residential areas, and balance these with a long-term program to acquire properties for flood protection and River improvement. All measures, including mixed use zoning, inclusionary zoning, and development guidelines, would be evaluated as the community takes part in developing Community Plan revisions. Special provisions for environmentally-sensitive measures (such as availability and use of reclaimed water) would also be evaluated at that time as part of the effort to establish River Improvement Overlay district.
Organic living. How do we make this a river again?

Make sure the white fencing along the entire extent of the river area allows for the greatest possible opportunities for recreation!

City of L.A. should have a zone called "River Mixed Use Zone." This would allow for possible housing, retail, commercial and industrial uses. This zone would allow for special elements to be integrated into the architecture of this zone. The zone should be implemented carefully, where the zoning could also make sure that green spaces are integrated into the planning.

Tell off from parking lift and work systems should be part of the solution. We have again looked into great detail. To clarify the role of off-street parking, we are consulting with the local residents on any issues. Things like the "River Parks." And what the issues here.

Consider should be developed for housing the, the location should be more transit-oriented and connected to all.
Letter I-11  Comments  Responses

>>> "David Hill" <abissinia@earthlink.net> 3/9/2007 10:14 PM >>>
Carol,

Thank you for your call, your time and attention today.

I have lived near and with the LA River for 63 years now as did my father and his father before him. I heard many stories about the big floods in the valley in the 1930's, before the cement was poured, when it was mostly agricultural land. The worst flood my father told me was so bad that the railroad tracks in the middle of the valley were under 6 ft of water and all roads to the rest (north) of California were closed for over a week. My first memory of the Sepulveda basin and dam were as a child in 1949 when my father took me there to fly his model airplane. We went almost every Sunday and there were always dozens of cars and families out to watch and participate. The basin at that time was the property of the Army Core of
Comments

I-11-1

Engineers and it included an active Nike missile site if I remember correctly. I still look back at the first remote controlled model aircraft event I attended with my father sometime in the early 1950's. It was such a spectacle that thousands of people came to watch the controlled models that were using guidance systems nearly as sophisticated as the guided missiles with miniature tubes like the first TV's had!

The basin was not yet connected to Parks and Recreation and the US government actively supported model aviation and realized (as did the Soviet Union at the time) that it was a great way to foster interest in and development of the talent for the technology and science that had historically made the US both economically and militarily strong. The spirit of Thomas Edison, the Wright Brothers and individual discovery and achievement was still incredibly strong in Southern California before network television major league baseball, football, soccer etc arrived. The sacrifices of WWII were still in everyone's consciousness.

The Sepulveda Basin today has developed into one of the most heavily used recreational parcels in all of the City of LA. With the exception of Whittier Narrows Park it is unique in that it will never be developed because of its potential for flooding during the occasional historic flood. It is no coincidence that these two parks are the only remaining public venues where the independent aviation enthusiast can still try out his or her dreams with powered model aircraft. 50 years ago there were literally hundreds of sites for a population a fraction the size of the 10 million or so residents that the parks serve today. These parks are irreplaceable in a metropolis where a half a square mile or more is required for the peace and tranquility of surrounding neighborhoods. The model aviation fields today live in relative harmony with joggers, bicyclists, golfers, baseball and soccer players who came decades later after Parks and Recreation took over management from the Army Corp in the Basin. There are multitudes of public baseball and soccer fields in every community of greater LA that are only used evenings and weekends and sit virtually empty all day long from Monday to Friday, Whittier Narrows Park in particular. The Apollo Field on the other hand is well attended and usually crowded 365 days a year from dawn to dusk by model aviation enthusiasts. When it is raining there are frequently people sitting in their cars waiting for it to stop. I have been one of several on many occasions.

The reason for my concern regarding the revitalization plan is I feel we cannot afford to let it infringe on a public resource like a model flying field which, on the verge of extinction, could be threatened by a plan that proposes non emergency flooding of the Sepulveda Basin.

I used to play along the LA River often as a child in the Griffith park section and realize the huge potential benefit of a well executed plan, but I cannot emphasize enough how strongly I feel about the necessity to preserve an irreplaceable resource like Apollo Field in the Basin. It is not a glamorous cause in the touchy-feely media world of today but it is certainly one that comes from the roots and from the hearts of the people who made LA one of the most prosperous cities on earth. Northrop, Douglas, Hughes, North American, Lockheed, and Rocketyne provided employment for a large percentage of Angelinos, who had the best standard of living in the world after WWII. I personally met and was inspired by executives, scientists and chief engineers from these companies who would regularly show up at the flying field as opposed to the golf course. This was the place

Responses

I-11-2: Comment acknowledged.

I-11-3: Comment acknowledged.
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<tr>
<td>I-11-3 to be noticed by your peers. Of course here I am now a retired scientist and engineer looking back at the things I valued along the way and hope they will be available to or even appreciated by those to come.</td>
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<td>ISSUE</td>
<td>RECOMMENDATIONS</td>
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<td>Health and active recreation</td>
<td>Active recreation is weakly incorporated into DLARRMP recommendations and graphic renderings. Given the diabetes-obesity epidemic in LA and the greater incidence of these illnesses among minorities, the DLARRMP and EIR can make greater emphasis on recommending active recreation in at least 3 forms: - Active and group-oriented sport facilities - Workout equipments and instructions - Pedestrian-friendly, mixed-use and transit-oriented land use.</td>
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<td>Public safety and crime prevention</td>
<td>The DLARRMP/EIR can be more explicit about design and programming-oriented recommendations to increase safety (and the perception thereof), reduce crime, and provide alternatives to gangs, drugs, and violence. Team sport events - After school activities - Formal partnerships with local community organizations and schools to manage the parks and programs along the river - Address homeless people with programs that aim to social reintegration, e.g., training them to become part of the maintenance, landscaping, and recycling programs along the river.</td>
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<td>Cultural opportunities</td>
<td>The DLARRMP/EIR can be more explicit about cultural opportunities along the river that engage both the mind and the body of people of different ages. The DLARRMP can provide an array of ideas that can inspire neighborhoods when they make their community plans, including: community centers, heritage parks, conservation trails, outdoor amphitheaters, cultural and regional festivals, etc. Include programs not only for youth, but also by youth, i.e., that youngsters are active designers and managers of their programs. Recommend both structured and unstructured activities. Ideally, recreational and educational opportunities should be available to intergenerational groups, such as community gardens (remember the South Central Farm?) and community centers.</td>
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<td>Educational opportunities</td>
<td>The DLARRMP has to acknowledge LAUSD needs for new schools or transformations of old schools in the area. It also has to explicitly link schools with each other and with facilities along the LAUSD managers should work together with the LAUSD and the Planning Dept. to both identify sites for new needed schools and create a network of pedestrian-friendly paths.</td>
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**Letter I-12**

Comments on the Draft of the LARRMP

Dear members of the LARRMP team,

I’d like to express strong recognition and appreciation for all the phenomenal work you have done to prepare the Draft of the LA River Revitalization Master Plan. In the following table, I respectfully submit my comments and recommendations regarding the DLARRMP and the EIR.

---

I-12-1: Comment acknowledged. Please see the responses to Comments O-1-1 to O-1-26.

I-12-2: Comment acknowledged. Many of these issues are related to governance and management of the river corridor and are intended to be addressed through implementation of the LARRMP’s recommended 3-tiered governance structure.

I-12-3: Comment acknowledged. We concur. Art, culture, and programs for youth are recommended components of the LARRMP and such works would be overseen through implementation of the Los Angeles River Foundation, should the Plan be adopted and its recommended management structure implemented.

I-12-4: Comment acknowledged.
## Comments

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<tr>
<td><strong>Parks</strong></td>
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<td>The LARRMP can be more explicit about providing ideas of for parks for communities to select from, including narratives of community histories (e.g., &lt;br&gt;heritage parks) and kinesiologic experience of flora and fauna (e.g., interactive ecosystem preservation)</td>
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| - Be more explicit about the nature of graphic renderings included in the LARRMP being illustrative about options, and not prescriptive.  
- Expand a palette of diverse options for communities to inform their choices, point to literature and/or website references.  
- Address issues of maintenance and management of parks.  
- Instead of conventional “heritage parks” with focus on the past, these spaces can be linkages between the past and the future, i.e., heritage and visionary parks, where people could interactively envision and express their desired futures. |  
| I-12-5 |  
| **Affordable housing and gentrification** |  
| Investment in the LA River corridor will increase property values and housing rents. Stronger and more explicit provisions have to be included in both the LARRMP and the EIR to prevent displacement, maintain affordability, and expand housing for all income brackets. The DLARRMP suggests removal of affordable housing, e.g., William Mead complex. The potential removal of existing affordable housing is terribly worrisome. It would be a repeat of the “urban renewal” programs of the 1950s-1970s that did away with a lot of housing for the poor around the States. |  
| - Removal of affordable housing should be forcefully opposed, unless clear and binding provisions are mandated to relocate residents in better accommodations in the same area.  
- Include inclusionary zoning mandate, rent control and other rent regulations, financial incentives for current renters to become homeowners, make provisions for housing subsidies (such as Section 8).  
- Recommend and adjust strategies such as rent control, transfer of development rights, land banking and whatever other strategies have proved to work elsewhere.  
- Create permanent task force on housing affordability that monitor all |  
| I-12-6 |  
|  
| F-170 |  
| **I-12-5:** Comment acknowledged.  
**I-12-6:** The LARRMP project area has already experienced increases in land prices and a strain on the affordable housing and small business sectors. The Plan recognizes the need to update existing Community Plans in River-adjacent areas through an extensive and inclusive community involvement process. That Community Plan update process will enable assessment of impacts on housing, loss of affordable housing, jobs, as well as on issues related to land use changes, gentrification, and preservation of community standards in terms of community stability and makeup. This is a stakeholder driven process that is best suited to gauge community support. The overall policy of this plan is to encourage the retention and strengthening of stable residential areas, and balance these with a long-term program to acquire properties for flood protection and river improvements. All measures, including inclusionary zoning, equitable distribution of benefits, and rent and job stabilization strategies, would be available to the community as they take part in developing their Community Plan revisions. The Plan does not advocate net removal of any affordable housing without proper compensation, replacement, and if necessary, relocation assistance/compensation within the neighborhood per the policies of the City of Los Angeles Housing Authority. |
I-12-7: Comment acknowledged. See previous response.

I-12-8: Comment acknowledged. Changes have been incorporated into applicable LARRMP and PEIR/PEIS figures.
### Comments

| I-12-8 | particular, even when they do read English (Irmak Moltz shared with the team that people that do not read English, only "read" the pictures of the DLARRMP and found them alienating). |
| I-12-9 | Language | The DLARRMP is only in English. |
| I-12-10 | Flood prevention and the Corp of Engineers | Regarding the matter of river transformations, I am particularly worried with the fact that all recommendations and plans are left for the Corps of Engineers to decide upon, and their main (or maybe only) mandate is river flood protection. They also have demonstrated (throughout history and the LA River history in particular) to have a heavy engineering bias to the solution of problems. Environmentalists have already pointed out that some of the current DLARRMP provisions regarding barriers to river naturalization are flawed, e.g., the DLARRMP suggests that no in-channel vegetation is possible without detention of floodwaters on the shores (like Sepulveda basin), but vegetation does grow in the Glendale Narrows. |
| I-12-11 | Participation | Despite the good intentions and efforts of the team, the lack of clear goals, monitoring, and accountability for the participatory component of the LARRMP planning process made for a weak and underrepresentative participatory process. Better design and implementation of participatory processes for the community plans should be strived for that enhance efficacy, legitimacy, and justice. |
| I-12-12 | Planners participation | I regret the very marginal (if any) participation of the planning department in this major planning project. The |

### Responses

<p>| I-12-9 | Comment acknowledged. |
| I-12-10 | The LARRMP is a document of the City of Los Angeles that makes recommendations across a broad spectrum of revitalization options. The Plan precedes the U.S. Army Corps of Engineers Feasibility Study because it represents the City’s recommendations. Next, the Corps will be conducting hydrology and hydraulics modeling to ensure that flood management capacity is enhanced and not diminished through the implementation of any LARRMP project involving channel modification. Additionally, any River-related project that intends to use federal funding is subject to the National Environmental Policy Act provisions that are within the purview of the U.S. Army Corps of Engineers. In-channel vegetation may increase the “roughness” of the river flow and hence change the requirements of flood management. For projects that are clearly within the City’s purview, such as creation of parks, paseos, land use change, development guidelines, and others that do not require federal funding, the U.S. Army Corps will not be involved (except on issues—as stated above—related flood management). Other comment acknowledged. |
| I-12-11 | Comment acknowledged. |
| I-12-12 | Comment acknowledged. The Planning Department has been involved in the LARRMP process from the very beginning. They have helped shape the recommendations of the Plan, including the RIO, and will continue to play an important role as the Plan moves forward (Please see Chapter 8 of the LARRMP.). |</p>
<table>
<thead>
<tr>
<th>Comments</th>
<th>Responses</th>
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<tbody>
<tr>
<td>The complexity and interconnectedness of issues of the LARRMP would have been better served by a planning coordination, rather than an engineering one. Planners are trained to plan, to facilitate public participation, and to coordinate multidisciplinary teams.</td>
<td>I-12-13: Comment acknowledged. The subject of environmental justice is addressed in the PEIR/PEIS in Sections 3.15 and 4.15.</td>
</tr>
<tr>
<td>Environmental justice</td>
<td>- The goal of a more equitable city should be explicit in the vision and many of the recommendations of the LARRMP and the EIR, particularly the related to social and economic issues.</td>
</tr>
</tbody>
</table>

My comments benefit from what I have learned from many people involved in the LARRMP planning process, including people in your team. I am particularly thankful to Siri Eggbergen and Joe Linton for their generous insights.

As we are all interested in a revitalization of the LA River that best serve the interest of all Angelinos, I trust you will continue to do your best to provide sensitive responses to all the concerns and recommendations gathered from the public, including my own.

Please let me know if there are other ways in which I can be of assistance in this process.

Sincerely yours,

Clara Irazabal  
Assistant Professor  
School of Policy, Planning, and Development  
University of Southern California  
650 Childs Way, RGL 226  
Los Angeles, California 90089-0626  
Tel: (213)740-0548; Fax: (213)740-0001  
E-mail: irazabal@usc.edu
I-13-1: Comment acknowledged. The LARRMP recommends development of a River Arts program along with long-term integration of the arts and culture in the development of Plan projects. Your continued involvement in this process is encouraged.

<table>
<thead>
<tr>
<th>Letter</th>
<th>Comments</th>
<th>Responses</th>
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</thead>
<tbody>
<tr>
<td>I-13-1</td>
<td>I wish to submit the following comments on the Draft PEIR/PEIS:</td>
<td>I-13-1: Comment acknowledged.</td>
</tr>
<tr>
<td></td>
<td>Deseo dar los siguientes comentarios sobre el PEIR/PEIS preliminar:</td>
<td>The LARRMP recommends development of a River Arts program along with long-term integration of the arts and culture in the development of Plan projects. Your continued involvement in this process is encouraged.</td>
</tr>
<tr>
<td></td>
<td>I attended the following Public Hearing (check one):</td>
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<td></td>
<td>Yo asistí al siguiente taller (marque uno):</td>
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<td></td>
<td>[ ] Saturday, February 24, 2007</td>
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<td>[ ] Sunday, February 25, 2007</td>
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<td>[ ] Monday, February 26, 2007</td>
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<td>[ ] Tuesday, February 27, 2007</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] Wednesday, February 28, 2007</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Generally speaking, good idea with the exception of the Downtown Industrial District. I have attended 3 yrs of meetings and saw no results of my input. The Air Rights over the MTA yards belong to us all and we could use this area to allow creative juices to be involved.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I-13-1</td>
<td></td>
</tr>
</tbody>
</table>

Optional Information:
Information opcional:
Name/Nombre:
Affiliation/Affiliación:
Address/Domicilio:
Email/Correo Electrónico:

Your comments may be handed in at the above table or mailed to:
Sus comentarios pueden ser entregados en la mesa de registro o puede enviarse por correo a:

Carol S. Armstrong, Ph.D.
Bureau of Engineering – Department of Public Works
City of Los Angeles
1149 S. Broadway, Suite 600 • Mail Stop 939 • Los Angeles, CA 90015-2205

Or posted online at:
O enviado por internet a:

www.lariver.org under the "Los Angeles River Revitalization Master Plan" link.
In Denver they put an amusement park downtown in the river bed, why can’t we build a giant water wheel on the river with a real line connection or a Skysite, Aerial gondola system connecting the river park to Dodger Stadium, and creating Christian El Vielble, Little Tokyo, Arts District.

Call Mr. 213-508-3788

Til Kootz
Letter I-14

From: Miguel Luna
To: carol.armstrong@lacy.org
Date: 2/20/2007 1:15:20 PM
Subject: Boeing - LA River "Heads-up"

Hi Carol,

I wanted to make you aware of a community member I met at a presentation (her name is Bonnie Klaa). She had great concerns in regards to the water quality coming from the Boeing plant in the San Fernando Valley. She mentioned that she would bring many people to the next valley workshop to express their concerns. She feels it would be unsafe for anyone to be exposed to water that would flow from this site to the River. Here is an article on the issue:

Boeing contests water rule
By ERIC LEACH, Staff Writer
Article Last Updated: 01/10/2007 08:24:44 PM PST

The Boeing Co. has filed a lawsuit challenging pollution limits set by the state for storm water that flows from its Santa Susana Field Lab into the Los Angeles River and the Arroyo Seco. Boeing asked the state Water Resources Control Board last month to reconsider the limits, which company officials maintain are illegal, according to the suit.

Because water board officials said they could not hear the case until at least May, Boeing filed the petition Wednesday in Los Angeles County Superior Court to protect its options, spokeswoman Blythe Jameson said.

"We are working with the regional board to develop a compliance plan for storm-water discharges and a realistic schedule for implementing those limits," Jameson said. "Boeing contends many of the permit limits are not appropriate for storm-water discharges."

William Rukeyser, a board spokesman, said the agency's decision had been carefully researched.

"We're totally confident any challenges will be unsuccessful," he said. "We're proud of the role the state water board plays in protecting human health and we recognize the importance of the successful Santa Susana cleanup to the people in the area and the environment of California."

Located in the hills between the San Fernando and Simi valleys, the Santa Susana Field Lab was used for decades for rocket-engine testing and nuclear research. Cleanup operations of nuclear and chemical contamination are under way.

The state issued Boeing a water quality permit in 2004, and tightened restrictions in 2006. State officials said the lab had violated provisions of the 2004 permit more than 100 times, with higher-than-allowed levels of mercury, dioxins and other contaminants.

But Boeing said many of those violations were from naturally occurring levels of heavy metals and chemicals in the soil, as well as residue from the 2005 Topanga Fire that burned more than two-thirds of the 2,800-acre hilltop site.

Jameson said to prevent runoff from the fire residue alone, Boeing has spent more than $1 million to remove 900 tons of ash and install barriers to prevent sediment from running off the site.

I-14-1: Comment acknowledged.
I-15-1 Comment acknowledged. Because this is a programmatic level analysis, because the document was available for public review for more than 50 days, because specific concerns may be adequately addressed in future project-level analyses, and because changes made in the Final PEIR/S provide clarification of key issues raised, the review period will not be extended. CEQA does not require additional review at the Final EIR stage. The 45-day public review period is a CEQA requirement for the draft document. We have already exceeded that requirement.

As mentioned in the response, “TreePeople #1,” the original scope of the Plan as proposed by the Los Angeles City Council defined the River Corridor at approximately ½-mile on each side of the channel. It is therefore not the appropriate vehicle for establishing land use management policy throughout the watershed.

The idea of the River as an Urban Wildlife Refuge has been proposed by the Santa Monica Mountains Conservancy and is considered compatible with the LARRMP, as was mentioned in the Plan on page 4-21.

I-15-3 Comment acknowledged. The idea of the River as an Urban Wildlife Refuge has been proposed by the Santa Monica Mountains Conservancy and is considered compatible with the LARRMP.

I-15-4 Comment acknowledged.


I-15-6 Comment acknowledged.
LARUWR:
The Master Plan for the LARUWR should exclude commercial, industrial, institutional, and residential developments as incompatible with the highest and best use, the preservation of the riparian ecosystem.

GLOSSARY:
The Master Plan and the Draft PEIR/PEIS should include in their Glossary definitions for terms used ephemeristically, to include but not limited to:

1) Revitalization
2) Opportunity
3) Improvement
4) Sustainability

These terms can be interpreted differently by different people. If time allowed, I could submit a definition for "sustainability," which would be in conflict with the way it has been used in both documents while obfuscating the real adverse impact the proposed project will likely have on the LAR riparian ecosystem and its adjacent communities.

CONCLUSION:
1) Please advise with respect to my request for an extension to submit additional comments for the written record.
2) I recommend including in the Draft PEIR/PEIS (1-11) reference to and a discussion of the SMMC’s publication entitled the “Los Angeles River Urban Wildlife Refuge: A Vision for Parks, Habitat, and Urban Rainfall” (LARUWR). This document should also be included in the MP.
3) The LARUWR should be included in the Draft PPDR/PEIS as an Alternative to the proposed "Preferred Alternative."
4) There must be a thorough review of the literature with respect to the biological and botanical resources of the LAR. Field studies are necessary, as well, to adequately identify the bird and other wildlife that inhabit this diverse ecosystem and how they are likely to react to the intrusive and disruptive impact of the proposals recommended by the LARRMP.

I-15-7 Comment acknowledged.

I-15-8 Comment acknowledged. These terms have been added to the Final PEIR/PEIS Glossary.

I-15-9 Please see response to Comment I-15-1.

I-15-10 Comment acknowledged.

I-15-11 Comment acknowledged.

I-15-12 Comment acknowledged. More detailed biological resource surveys are likely necessary as individual projects move forward and are subject to their own environmental analyses (e.g., CEQA and NEPA).
Letter I-16

I-16-1: Comment acknowledged.

I wish to submit the following comments on the Draft PERPES:

Deseo dar los siguientes comentarios sobre el PERPES preliminar:

I attended the following Public Hearing (check one):

- [ ] Saturday, February 24, 2007
- [ ] Tuesday, February 27, 2007
- [ ] Wednesday, February 28, 2007

I was recruited by the Alliance de la Ríobea del Rio Mapocho to do a great job in organizing the community with the intent of maintaining clean water and clean air, improving the quality of life.

I am asking the Master Plan Committee to allow us to participate in special projects, community service projects, and volunteer in special events.

River is very proud of the special committee to start any.

Optional Information:

Información opcional:

Name/Nombre:
Affiliation/Afilación:
Address/Domicilio:
Email/Correo Electrónico:

Your comments may be handed in at the sign-in table or mailed to:

Gus comentarios pueden ser entregados en la mesa de registración o pueden enviarse por correo a:

Carol S. Armstrong, Ph.D.
Bureau of Engineering - Department of Public Works
City of Los Angeles
1140 S. Broadway, Suite 600 • Mail Stop 939 • Los Angeles, CA 90015-2205

Or posted online at:
G enviado por internet a:

www.laver.org under the “Los Angeles River Revitalization Master Plan” link.
I-17-1: See the PEIR/PEIS page 3-19, under Railroads, and, particularly, the discussion of the daily Amtrak passenger service and other commuter trains that use the Union Pacific lines. The PEIR/PEIS advocates consolidation of rail tracks, but does not make recommendations regarding changes to service delivery.

From: <mikeonsp@earthlink.net>
To: <engrplan@nsa.gov>
Date: Tue, Feb 6, 2007 9:13 PM
Subject: LA River RMP Site - Comment on Master Plan

Comment Type: Comment on Master Plan
Subject: River Issues
Comment:
1. I have seen the river flow during storm events, I think it is faster than 30 FPS when over half full. Be VERY careful.
2. Transportation: you neglected the 8000 +/- daily Amtrak passengers who use the river corridor west bank tracks (in addition to Metrolink). The State has invested significant funds developing these passenger alternatives to highways, be sure they are preserved and enhanced.
I-18-1: See response to Comment I-4-1.
Comments

Bill Glass will only defeat the prime purpose of open space and restrict recreational use of the area by increased traffic and pollution. The adjacent natural views of sight will be obstructed by four (4) and five (5) stories of buildings (9).

The above mentioned parcel will not only help facilitate the implementation of a landscaped and pedestrian path but will provide for underground water quality governance.

Thank you.

The Mayor, John Doe

Responses
<table>
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<tr>
<th>Letter I-19</th>
<th>Comments</th>
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<tbody>
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<td>I-19-1: Comment acknowledged.</td>
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<tr>
<td>I-19-2: See Comments to O-7-4 above.</td>
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</tbody>
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**From:** bramirez@usc.edu  
**Sent:** Tuesday, March 27, 2007 5:31 PM  
**To:** engpeirs@lacity.org  
**Subject:** LA River RMP Site - Comment on EIR/EIS

Comment Type: Comment on EIR/EIS  
Subject: Test Gaine

Comment:

With every plan, no matter what type it is, there are good and bad aspects as well as room for improvement. The Los Angeles River revitalization master plan is a very thorough document to ensure the best for the communities and residents it will affect. There are many great opportunities the revitalization could bring; one of the goals that I believe will be a success is in greening the river and the neighborhoods. More and more people are becoming aware of the position we have placed ourselves in due to pollution and not using resources wisely; therefore, the greening of the river could greatly improve the current situation, people may become more aware of the environmental problems we are facing and that more green locations are needed. It will bring more people to the river and want to be there because it will seem as if you are not in Los Angeles because of all the green, bike lanes, and welcoming environment.

The issue that concerns me the most, and probably everybody else as well, is the fact that gentrification and displacement seem very likely. A lot of new things want to be added and it is going to cost a lot of money to recreate this river and location which will raise the cost of living in certain areas. Many of the residents along the river are low income families that will not be able to afford it once it is beautified. The revitalized river is supposed to be for the people but if some action, such as mandatory affordable housing or inclusionary zoning, is not taken into consideration then the current residents will not be able to enjoy it, thus defeating the original purpose of the LA River revitalization.
I-20-1: This comment was discussed with the LARRMP team and the City of Los Angeles BOE. Chapter 2 of the PEIR/PEIS describes the array of river channel modifications and open space development measures comprising the implementation of the LARRMP. The PEIR/PEIS evaluated at a programmatic level the potential impacts associated with future LARRMP implementation projects that could involve these river channel modifications and open space developments within the River Corridor and the five opportunity areas. The PEIR/PEIS did not address water supply benefits, since an analysis of potential savings through detention and/or infiltration would be required on a project-specific level.
I-21-1: The school project and the park are also subject to environmental analyses as part of their CEQA compliance—during these processes, expected noise impacts must be discussed.

---

From: susan ROCHA <carol202002@yahoo.com>
To: Carol Armstrong <Carol.Armstrong@lacity.org>
Date: Wed, Feb 7, 2007 10:23 PM
Subject: Re: noise

There is a school project going to be built along the river down San Fernando Road in Glendale Park. There is also a park about to open there. No one has mentioned the increased train noise. No one has mentioned how the train noise would impact a school or the park or near by residents.

Susan

Carol Armstrong <Carol.Armstrong@lacity.org> wrote:

Dear Ms. Rocha,

Regarding your question about noise impacts of the Los Angeles River Revitalization Master Plan (LARRMP) project, as specific projects in particular locations along the River Corridor are identified during the implementation of the LARRMP over the next several decades, specific noise studies will be conducted as may be appropriate to those projects and locations, and specific mitigation/attenuation measures will be identified at that time. At the programmatic level of the current environmental document—the PEIRPEIS—no specific projects are being evaluated at this time, specific noise studies and attenuation measures are considered premature.

Certainly the City would implement its environmental evaluations and project implementation—through construction and operation in accordance with the prevailing municipal code. I hope that you will stay involved in the LARRMP project to find out more about its progress and the implementation of future projects. In the meantime, please do not hesitate to contact me should you have any additional questions.

Best Regards,

Carol Armstrong

Carol S. Armstrong, Ph.D.
Project Manager
Los Angeles River Revitalization Master Plan
www.larver.org

Bureau of Engineering
Department of Public Works
CITY OF LOS ANGELES

1149 S. Broadway, Suite 600
Mail Stop: 939
Los Angeles, California 90015-2205

Office Telephone: (213) 486-5762
Cell: (213) 923-0365
FAX: (213) 947-0956
I-21-2: As specific projects in particular locations along the River Corridor are identified during the implementation of the LARRMP over the next several decades, specific noise studies will be conducted as may be appropriate to those projects and locations, and specific mitigation/attenuation measures will be identified at that time. At the programmatic level of the current environmental document—the PEIR/PEIS—since no specific projects are being evaluated at this time, specific noise studies and attenuation measures are considered premature. The City has indicated that it would implement its environmental evaluations and project implementation—through construction and operation—in accordance with the prevailing municipal code.
I-22: This would be contrary to the goals and objectives of the LA River Revitalization Master Plan as stated on Page ES-2 of the Draft PEIR/PEIS.

To whom it may concern,

I read the L.A. Times article for 3/12/07 on the L.A. River & I immediately thought, what a great solution the L.A. River & All other Rivers would be to the horrible L.A. Area Traffic.

Why couldn't the L.A. River & others double up as traffic Flys?

They can be built designed by our fantastic capable civic engineers to function a double as a Fly or a River.

And of course, designed not to be used when it Rains or when water level is too high.

Doubling our Rivers as Flys would be:

1. A lot easier than building new ones. Though, new ones can still be built & old ones repaired.
2. Tremendously less expensive (Save Billions)
3. Traffic Solutions would be more immediate, efficient, effective, viable, practical from so many viewpoints (economic, time, real estate, design, etc., etc., etc.)
4. Would not displace people from their homes
5. Would help move Traffic while other Flys are under construction & old ones repaired.

MAR 20 2007
Ara Kaspar
CC: Phil Richards
Comments

6. Special Entrances & Exits can easily be built to accommodate traffic & to be used only when safe to do so. A stipulation by law.

7. Beautiful parks & recreational areas can still be built to beautify the area & city.

8. Would bring a lot of smiles to millions of daily commuters.

9. These rivers run through the heart of every city & would facilitate traffic downtown as well as on the outskirts.

10. Design, building a coastal of the river-tufts would not be in the way of traffic, while coastal would not cause any traffic jams.

11. Even if the areas could only be used minimally or as an alternative -- meaning while other proper acceptable ways of moving traffic can be figured out, accepted & built, it would still be a great traffic solution.

Sincerely,

Angel Rodriguez
17090 La Vea
Fontana, CA 92337
<table>
<thead>
<tr>
<th>Letter I-23</th>
<th>Comments</th>
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<td>I-23-1: Comment acknowledged.</td>
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<tr>
<td>I-23-1</td>
<td></td>
<td>I-23-2: Comment acknowledged.</td>
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</tbody>
</table>

Comments:

- I-23-1: Comment acknowledged.
- I-23-2: Comment acknowledged.

Responses:

- I-23-1: Comment acknowledged.
- I-23-2: Comment acknowledged.
I wish to submit the following comments on the Draft PERPES:

Deseo dar los siguientes comentarios sobre el PERPES:

Lettered the following Public Hearing (check one):

Yi escribí el siguiente taller (marque uno):

☐ Saturday, February 24, 2007  ☐ Tuesday, February 27, 2007  ☐ Wednesday, February 28, 2007

The City of L.A. opened the river a few years ago and said “let all come” and began dredge in the City Cane to the LA River. Homeless mentally ill, gangsters, strip clubs, vendedores, drug users, etc. begin doing it on their own.

When the City opened the river they did it, and they always do so without a plan for security. Maintaining all the public things that have been done at taxpayer expense. They still have no plan, which the taxpayer funds to keep them still. There is no security decent people take their lives in their own hands, taxpayer spend.
I-24-1: Comment acknowledged.

I-24-2: Comment acknowledged.

---

I-24-1

Small fortunes to rescue homeless people in high water, sewer overflow, etc. Please keep the river clean. The city is filled with filth and people are going in one end and out the other.

But, in all their wisdom, the city fathers & mothers have wasted millions of taxpayer dollars on an unworkable plan. The people now have to clean up the litter they were trying to shove down the river.

I-24-2

Still no plans to take care of the plants at the plan. Still no plans to maintain anything. Only ridiculous plans to rope taxpayers under the pretense of revitalizing the river.

The best master plan would be one where all these incompetent people are gone and San Antonio moves through all the city council.

When you do that master plan I'll support it - until then forget it.
I-25-1 Comment acknowledged.
Letter I-26 | Comments

From: <williamprestonbowling@yahoo.com>
To: <enirpeirs@lacity.org>
Date: Wed, Feb 28, 2007 8:49 AM
Subject: LA River RMP Site - Comment on EIR/EIS

Comment Type: Comment on EIR/EIS
Subject: L.A. River Test For Toxins

Comment:
Before you re-vitalize the LA River please test the Canoga Park Area for Perchlorate, Tritium, TCE and other dioxins that may leach down from the Santa Susana Nuclear Laboratory that is at the headwaters of the LA River. Children should not be splashing around or catching fish with a cancer risk. DTSC, DHS & EPA should all be notified, thank you.

Responses

I-26-1: In the Final PEIR/PEIS, specific language from your comment will be added to Section 4.5.8 (Mitigation Actions and Best Management Practices) regarding water quality, and to Section 4.11.2.1 (General Types of Impacts and Mitigation) regarding potential HTRW in the River Corridor. The Canoga Park area will be included for example.
**Letter I-27**

**Comments**

| From: Glen [glenw@dslxtemce.com] |
| Sent: Tuesday, March 13, 2007 4:18 PM |
| To: engprpsrlacity.org |
| Subject: L.A. River Revitalization Master Plan |

I was only person who attended Public Hearing Feb.24, 2007 because the LA Daily News had a right up on it and the Neighborhood Councils where not e-mailed about it for NC’s input!

Northridge West Neighborhood Council
glenw@dslxtemce.com
E-mail to www.lariver.org or mail to
Los Angeles River Revitalization Master Plan
Carol S. Armstrong, Ph.D.
Bureau of Engineering- Department of Public Works
City of Los Angeles
1149 S. Broadway, Suite 600 Mail Stop 939
Los Angeles, CA 90015-2205

I wish to submit the comments on the Draft PEIR/PEIS:

I-27-1 The Los Angeles River Revitalization Master Plan is good in general but this will cost up to $5.7 Billion went the L. A. City is short of money all the time. We need the money for current programs now like tree trimming (was 7 years & now about 10 years to trim trees), potholes, sidewalks, resurface the streets, graffiti, street traffic, clean up (operation clean sweep), more police and L. A. City will have less money for 2007/2008!

I-27-2 The problems with Los Angeles River Revitalization Master Plan is

1) The High Cost of the Los Angeles River Revitalization Master Plan

2) Will have more Gang and graffiti problems in Canoga Park and other areas (current not using some walk bridges over the river because of gangs in Canoga Park)

3) Golf courses (problem with fertilizer and pesticides used)

4) Public Health and Safety (pooled water, enter the River channel during flood stages leading to injury or drowning, fire hazard, trash etc.)

5) Socioeconomic Conditions Public access to the river is good but not during the rains and bad on traffic with limited parking already before the Los Angeles River Revitalization Master Plan (With expansion of the River right-of-way may impact existing and employment due to displacement of existing uses; could displace existing businesses and result in lost jobs; could need more emergency medical services, police and fire protection; could induce a demand for new or altered government services)

6) Transportation (long-term adverse impacts include increased Traffic and Parking demand due to more visitors to the areas, could impact arterial streets and railroads and high parking problems because of the right-of-ways of river for visitors, limited right-of-way [ROW] through residential neighborhoods and areas of industrial development)

<p>| Responses |
| I-27-1 Comment acknowledged. |
| I-27-2 Comment acknowledged. |
| I-27-3 Implementing the LARRMP is not expected to result in more gang and graffiti problems. Instead, proposed River improvements and enhanced oversight and coordination would be implemented through programs of the recommended three-tiered governance structure. This is expected to result in public service delivery improvements in public access, maintenance, and security. Thus, both the occurrence of graffiti and gang activity in the River Corridor are expected to decrease. |
| I-27-4 Comment acknowledged. |
| I-27-5 Comment acknowledged. |
| I-27-6 Comment acknowledged. Please see responses to Comments O-7-4 and I-26-3. |
| I-27-7 Comment acknowledged. Transportation impacts would be addressed on a project-by-project basis through the subsequent environmental review (CEQA) processes. |</p>
<table>
<thead>
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<th>Comments</th>
<th>Responses</th>
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</thead>
<tbody>
<tr>
<td>I-27-8</td>
<td>I-27-8 Comment acknowledged. Air quality and cultural resource impacts would be addressed on a project-by-project basis through the subsequent environmental review (CEQA) processes.</td>
</tr>
</tbody>
</table>
| 7) Cultural Resources (Historic buildings and structures including bridges which may have went they do like excavation and grading, etc.) Noise fugitive dust emissions during construction. | }
<table>
<thead>
<tr>
<th>Letter I-28</th>
<th>Comments</th>
<th>Responses</th>
</tr>
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<tbody>
<tr>
<td>I-28-1</td>
<td>Suggestion from Scott Wilson, NET, to address how we will recycle the concrete that we remove. (stacked concrete walls, etc.)</td>
<td>I-28-1 Comment acknowledged.</td>
</tr>
</tbody>
</table>

From: Renee Ellis [Renee.Ellis@laody.org]  
Sent: Wednesday, March 07, 2007 4:42 PM  
To: Carol Armstrong  
Cc: Artz, Iia  
Subject: LARRMP Concrete Removal  

Renee Ellis  
Landscape Architect I  
Bureau of Engineering/Architectural Division  
213 485-4299
Comments

EIR_EIS Hearing Feb 24 2007 Hollenbeck A4457MOD.TXT

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TRANSCRIPT OF PROCEEDINGS
HOLLENBECK MIDDLE SCHOOL
BOYLE HEIGHTS, CALIFORNIA
SATURDAY, FEBRUARY 24, 2007

REPORTED BY:
RUBEN GARCIA
CSR No. 11305
Job No.:

PUBLIC HEARING
Comments

TRANSCRIPT OF PROCEEDINGS, taken at
Hollenbeck Middle School, 2510 East 6th Street,
Boyle Heights, California, commencing at
11:40 a.m., on Saturday, February 24, 2007,
reported by RUBEN GARCIA, CSR No. 11305,
a Certified Shorthand Reporter in and for
the State of California.

0003 APPEARANCES:

01 Staff:

02 Alex Watt
03 U.S. Army Corps of Engineers
04 Los Angeles District

05 David Broadfoot
06 Tetra Tech Consultant

07 Gary Moore
08 City of Los Angeles Department
09 of Public Works, Bureau of Engineering

09 Chris Robert
09 The Robert Group
10 Community Outreach

11 Ira Artz
11 Tetra Tech
12 Team Leader/Project Manager

13 Deborah Weintraub
EIR/EIS Hearing Feb 24 2007 Hollenbeck A4457MOD.TXT

City of Los Angeles Department
of Public Works, Bureau of Engineering

Carol Armstrong
City of Los Angeles Department
of Public Works, Bureau of Engineering

Scott Jordan

Bill Wenk
Wenk Associates
Urban Design

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02 Opening by Alex Watt
03 Presentation by David Broadfoot
04 Public Comments
05 Adjournment

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E X H I B I T S

(No)
Mr. Watt: Hello. My name is Alex Watt, U.S. Army Corps of Engineers, the Los Angeles District. We are involved with the Rio Salado project in Phoenix, the Tres Rios project in Phoenix, our Sacramento office has been involved with the Santa Cruz—the Guadalupe River in San Jose, and with other projects here in Los Angeles. We are very happy to be involved as partners with the City of Los Angeles on this project, and we're really looking forward to having this come to fruition and getting plants in the ground, getting the bike paths in, and getting this to where we can enjoy the river and get the river back to where it used to be and still maintain the flood control that we need to protect your houses.

So at this point I turn it over to David with Tetra Tech to do the presentation.

Mr. Broadfoot: Thanks, Alex. I am David, by the way. Glad to meet all of you. I'm going to talk really fast here. I was the leader of the group that did the Environmental Impact Report and Environmental Impact Statement, so there's about eight to ten of us who teamed up to do that. And we created this environmental document, which is a different document than the one that was just discussed. And this is the Environmental Impact Report and the Environmental Impact Statement.

And as Alex Watt just pointed out, the collaboration between the Army Corps and the City is really a good thing. And they're required to look at the environmental impacts associated with this kind of a concept plan that we're all considering for revitalizing.

So that's what our task was. I just wanted to point out that you don't have to speak your comments today. You can put them on the comment card, comment cards that we have and give them in to us. You can send them in. You can go online and you can give your comments that way. You can call up Carol Armstrong at the City and tell her what you think. So we have many ways that you can give your comments.

And we're in what we call the comment period right now, for the draft document has been done. We're asking the public now for your comments. So we want to give you the time to have the comments come in. So I'm not going to say that much. So I'm going to run through some slides real quick just so you have an idea. There's three public hearings like this. This
As you know, the study area that we looked at goes from Canoga Park down to the City of Vernon area, right through the City of L.A. In particular, we looked at the five opportunity sites that we have already talked about. We've concentrated and focused on those five. I mentioned that there is a collaboration between the Army Corps and the City and makes it both – we're complying with both the State regulations and the Federal regulations that way, which makes it nice.

Our approach that we have taken here is that we have looked at about a half a mile on each side of the river for all of the 32 miles, and we have focused on the five opportunity areas.

And what we have focused on is the environmental impacts that are associated with the measures and the features that have been talked about this morning. We have alternatives that have been established that have been mentioned for each of the five opportunity areas. And we have assessed the impacts that could be associated with projects that would be coming out.

The challenge for us was that there's no projects at this point coming out, you know. It's just concepts. And so we stood back and said, "Okay, let's look at the river channel measures that could be changing in the river, and let's look at the opportunities for open space, all the parks and all the streets, the streets and green streets and that kind of thing.

So we looked at all of those measures. And then we looked at alternatives at each of the five opportunity areas. And we looked at 16 environmental resources, which are listed here. We hope this is a comprehensive list. It's a list that we would approach every project with.

And even though it's a concept level document that we are looking at with the Master Plan, we still asked ourselves what's going to go on if they go out and do something to the river channel, or what's going to go on if you put a park here or a ball field here or a walkway here, you know. What can happen to all of these resources? And so that's the kinds of questions that I was asking my team to answer.

And so what we came up with is 10 of them – there was 16 of them, and 10 of them have the potential to have some pretty significant impacts. And then we said, hey, we're going to raise the flag now because during the programmatic level of an E.I.A. -- we call it Environmental Impact Report or Environmental Impact Statement, E.I.S. During the programmatic level now, is when the decision-makers and the City and the Corps can actually step back and make some changes perhaps and some decisions when we point out and raise the flags like we have in these ten areas.

So what are some of the impacts? And I won't go into the details here. But when all of the dust from the air quality can be an impact, there's some really nice, high quality biological resources, the Sepulveda area and so forth. Most of the river doesn't have great habitat, as you know. And that's the whole idea of the revitalization. Cultural resources. There are cultural
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resources along the river and those can be destroyed
unless we pay attention to them.

Also, there's people, low-income families, you
know, and people who are not as -- don't have the
advantages that many other people have that live in
the area. And so there can be maybe some relocation
that would have to be looked at and that kind of thing. So we
looked at those kinds of things as potential impacts.

We looked at potential for water quality. When
they're constructing they create a lot of sediment, and it
can create some water quality problems. So we
pointed those things out.

We know that changing land uses, this was
mentioned during the earlier discussion, that communities
would have to be involved here because we're talking about
maybe making some land use changes. So that's a big
impact. And so we said, ‘Hey, you better do something
about that.’ So that's what's built into the plan to
involve the communities.

There's noise issues. There's public health
issues, you know, when you start pumping up water, you
possibly can get some more mosquitoes and that kind of
thing. So all these things we looked at. The
socioeconomics. Maybe some loss of jobs if you have to
relocate. There's potential for that.

So we're saying that even though we're doing a
programmatic approach here, we're saying that when a
project comes up in the Boyle Heights area or any place
along the river corridor, take a look at these things
because we're saying these are potentially the areas that
could have significant impacts. And so spend time looking
at these things. Talk to the communities and so forth.

Transportation, as you know, is a big issue.
And whenever you create places where people are going to
bring their cars and so forth, you have problems with
traffic. You have problems with parking and so forth. So
these are issues that need to be addressed.

We also also came up in our minds with some ways that
we could approach not only construction, you know, because
construction can have a big impact, but also in the
operation of the new facilities that can have an impact as
well. And we thought that there's a whole list of things
that we can put forward in our document that can be used
in the future project planning that could be reducing the
impacts. And so that's what we call mitigation measures.

And our thinking is that with using these mitigation
measures, it will probably likely reduce the impacts to
less than significant. So we're really advocating that
the city and the Corps and anybody who wants to do any of
the projects for revitalization look at how to put these
mitigations into effect.

Again, I won't go into the details because the
important thing is to get your comments and I want to stop
pretty soon here.

And we went through all through the ten ones
that had significant impacts to show you some of the
things that could be done.

Again, the process that we're in now is the
public hearing process. It will go on until March 19th,
when you have to have all your comments in by then. We'll
incorporate all the comments into a final version of the

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Comments

T-1-1: Comment acknowledged.

Responses

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T-1-2: Comment acknowledged. Comment passed on to the LARRMP planning team.

T-1-3: Comment acknowledged.

T-1-4: Comment acknowledged. These features will be inherent elements of the implementation of future projects.

T-2-1: Comment acknowledged.

T-2-2: Comment acknowledged.

T-2-3: Comment acknowledged.

T-2-4: Comment acknowledged.

T-2-5: Comment acknowledged.
T-3-1: Comment acknowledged.
T-4-1: Comment acknowledged.
T-4-2: Comment acknowledged.

MR. BROADFOOT: Thank you very much. Please give your name and your location.

MR. GONZALEZ: My name is Jose Gonzalez. I am associated with a task force that was created out of the Congreso last year, the health issues task force, and I am the chairman of that task force. I want to tell you a real quick story, and then I will tell you the point that I want to make. In 1959 my family used to live down in what was called then El Oleo, soto, which is right below Soto Street Elementary School.

And in those days there used to be this big pipe that was for the flooding to go through and end up in the river. And as kids during the summer, one day we decided we wanted to use the L.A. River as a bike trail, so we went through this tunnel that went all the way from that location to the river to get on the bank of the river, and we took our bikes and our friends and we all went down towards Long Beach. So this is like a dream come true; right?

The one point that I really want to make that came out of the health issues at the congress, and that is, in order to have a healthy planet, we have to have healthy people. And I think that even in the other places where there are rivers, et cetera, I think one of the things that Los Angeles needs to do in this Master Plan is to expand the active areas. We have thousands and thousands of kids, you saw some of them here today, who don’t have places to be active. And I think the river can be a way to accommodate. If we’re going to acquire land, let’s acquire it for the kids as well.

We have diabetes. We have obesity. We have lack of activity on the part of our children. That’s the future, and the river will do us no good if the kids can’t walk around and be able to enjoy it.

MR. BROADFOOT: Thank you very much.

MS. ROMAN: My name is Kathy Roman. I am the Green Stage Public Affairs special events coordinator. I will read this as briefly as I can.

We, the 2006 National Latino Congress, resolve to endorse the adoption of pilot food waste recycling programs and the use of biodegradable products at publicly staged events and businesses to reduce organic waste going to local landfills.

We are changing from a culture of waste disposal into a culture of recycling discarded materials. We are in need of educational components for the adoption of alternative recycling programs. Whereas these biodegradable products and recycling of discarded materials services provides an alternative disposal system instead of using an in-sink garbage disposal unit, since there have been extensive clogging problems involving food, waste in the overflow of public sewers.

Whereas adoption of food waste recycling programs combined with the use of biodegradable products allowed for organic waste-hauling to be mixed with green waste at a composting facility and the nutrient-rich finished product is used by farmers and gardeners to help grow larger and better crops.

We resolve to give the priority to government and general businesses contractual services replacing...
Comments

T-4-2
01 Styrofoam and petroleum-based plastics by implementing use of biodegradable greenware at the L.A. River Revitalization Master Plan. Number 2, we resolve to ask public-elected officials and public service servants to develop financial incentive programs that will divert food waste collected from our events for composting.

T-4-3
01 T-4-4: Comment acknowledged. And finally, resolve the 2006 National Latino congress urges the leadership implementing use of biodegradable utensils made of corn, sugar pulp, potatoes and the like in conjunction to the adoption of food waste recycling programs to reduce discard materials going to local landfills.

T-4-4
01 Green Stage has been presenting testifying of all public hearings and is concluded to prepare for the L.A. River Revitalization Master Plan. Green Stage has been sponsored to implement performing arts and zero waste management control at programs combined at L.A. Historic State Park during 2006 by California State Parks, not a Cornfield, LLC, LA Eco Village, National Latino Congress, Earth Day Network, KFWI and The Green Media Corporation. But this has not been implemented and it's been ignored on the Revitalization L.A. River Plan.

T-4-5
01 MS. MUNOZ: Good afternoon. My name is Ms. Munoz. I want to first thank the city, the consultant team, and everyone involved with what is a beautiful Master Plan. We met with them earlier this week to talk about our concerns that we have in the community.

Responses

T-4-3: Comment acknowledged.

T-4-4: Comment acknowledged.

T-4-5: Comment referred on to the LARRMP team.

T-5-1: Comment acknowledged. In the Environmental Justice sections of the PEIR/PEIS (Section 3.15 and 4.15), the potential impacts on minority and low-income people in the areas of potential effect from implementation of the LARRMP have been assessed at the programmatic level. When specific projects are brought forward to implement the concepts presented in the LARRMP, then more definitive and specific impacts to minority and low-income populations in proximity to the River Corridor can be identified and evaluated, and proper mitigation measures incorporated to reduce impacts. The inherent intentions of the LARRMP goals are to enhance the quality of life for all Los Angeles citizens.

T-6-1: Your comment appears to be more directed to the planning process involved with developing and implementing the LARRMP. It is suggested that you discuss your concerns further with the City and other key stakeholders in the Boyle Heights area. Your comment has been passed on to the LARRMP planning team and the City.
T-7-1: Your comment is more related to the LARRMP than to the PEIR/PEIS. It is suggested that you re-direct this question to the City and the LARRMP planning team. Your comment has been passed on to the LARRMP planning team and the City.

T-7-2: Comment acknowledged. Since sports fields require larger parcels of land than the existing River easements, these preferences must be discussed as individual projects move forward and land acquisition is discussed. See, for instance, the Community Planning discussion in the LARRMP’s Chapter 8.

T-8-1: Comment acknowledged.
Comments

T-8-1

wonderful, but we also could use -- there's room for both. We have plenty of jails here. We have plenty of freeways here. Now we need a sports complex for our kids.

T-9-1

Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City. This kind of civic involvement is critical to the success of the LARRMP and would be coordinated through the work of the LARRMP-recommended River Foundation, should it be established.

T-9-2

Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.

T-9-3

Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.

T-10-1

Comment acknowledged.

Responses

T-9-1: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City. This kind of civic involvement is critical to the success of the LARRMP and would be coordinated through the work of the LARRMP-recommended River Foundation, should it be established.

T-9-2: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.

T-9-3: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.

T-10-1: Comment acknowledged.
T-10-1: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City. See also Chapter 10 of the LARRMP, which discusses implementation issues and the importance of benefits to existing residents and businesses.

T-11-1: Comment acknowledged.

T-12-1: Comment acknowledged.

T-12-2: Comment acknowledged.

T-13-1: Your comment is more related to the LARRMP than to the PEIR/PEIS. It is suggested that you re-direct this concern to the City and the LARRMP planning team. Your comment has been passed on to the LARRMP planning team and the City.
<table>
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<td>T-13-1: L.A. River, and it would alleviate the problem of overcrowdedness among our schools. Also, I know that recreation is very important. But education is extremely important in our community. Thank you.</td>
<td>T-13-2: Comment acknowledged.</td>
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<td>T-14-1: The percentage of Boyle Heights' youth people under 25 is about 60 percent of Boyle Heights. That means we need schools. We need sports. And that's what you guys have been hearing. That's my first issue. Also, along with -- I don't know if you guys are aware of the gentrification that is taking place in downtown, we do not want gentrification in Boyle Heights. We have been here for generations. And we do not want people to come in, bring all this with them.</td>
<td>T-14-2: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City. Also, see response to Comment T-43-1.</td>
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<td>T-14-3: The many and varied communities along the Los Angeles River within the City are distinct in their characteristics and in their future visions for revitalization. (See, for instance, the Final PEIR/PEIS discussion of “Environmental Justice.”) Thus, it is imperative that project-level analysis of environmental justice impacts be conducted as individual projects move forward in various communities.</td>
<td>T-14-4: Comment acknowledged.</td>
</tr>
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<td>T-14-5: Comment referred on to the City of Los Angeles. The draft LARRMP and the Notice of Availability (NOA) for its Draft PEIR/PEIS were published in the Los Angeles Times on February 2 and both documents were placed in 16 public libraries along the river corridor prior to that day—including Benjamin Franklin Branch Library. Throughout the 54-day public review period, the documents were available online along with Spanish translations of the Executive Summary and NOA. Each of the 18 public workshop presentations were also presented in Spanish and at least two of these were hosted in Boyle Heights. We understand that it is difficult to reach everyone and hope that concerned and involved residents, such as you, will help us spread the word and improve our outreach in the future.</td>
<td>T-14-5: Comment referred on to the City of Los Angeles. The draft LARRMP and the Notice of Availability (NOA) for its Draft PEIR/PEIS were published in the Los Angeles Times on February 2 and both documents were placed in 16 public libraries along the river corridor prior to that day—including Benjamin Franklin Branch Library. Throughout the 54-day public review period, the documents were available online along with Spanish translations of the Executive Summary and NOA. Each of the 18 public workshop presentations were also presented in Spanish and at least two of these were hosted in Boyle Heights. We understand that it is difficult to reach everyone and hope that concerned and involved residents, such as you, will help us spread the word and improve our outreach in the future.</td>
</tr>
</tbody>
</table>
T-15-1: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City. See, in particular, Chapter 10 of the LARRMP, which addresses gentrification concerns.

T-15-2: Your comment is more related to specific implementation aspects of the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City. The recommendations proposed in the LARRMP are not final; they are open to change. Your suggestions should be expressed as individual projects are considered for implementation. See, for example, Chapter 8 of the LARRMP, which discusses future community planning activities which will provide opportunities for you to share such input.

T-15-3: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.

T-16-1: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.
Comments

T-16-1
16 And so we are supporting the Alianza de los Pueblos del Rio and recommendations for more active recreation areas along this river.
19 And we do so pleased that Mia Lehrer is involved because we know that this is going to mean that the parks that are going to be built are going to be environmentally sound. They're going to retain the storm water so that no water is going into the river, and that we have an environmentally integrated system.

T-16-2
03-40 
01 very much. 
02 MR. BROADFOOT: Thank you, sir. 
03 MR. GONZALEZ: Good afternoon. My name is Antonio Gonzales. And I am the president of the Southwest Voter Registration Education Project, as well as the willie Velasquez Institute. I am also part of the Alianza de los Pueblos Del Rio Los Angeles Coalition that has been working on the L.A. River issue for some time now. I am a speaker from the Fabian Nunez representative to the Board of Santa Monica Mountains Conservancy and have just joined the State Board of the Audubon Society.
06 And we have already distributed some comments, critiques and so forth of the plan that was released a couple weeks ago. We will submit these in written form to be on the official record. But basically while acknowledging the really excellent work of the City of Los Angeles and stalwarts such as Debra Weintraub and Mia Lehrer and Councilman Reyes and all of you that have been so involved in this, Lupe Vela, and we support a lot of the things that are in the plans, support the greening revitalization of the Los Angeles River, we believe that the narrative, basic explanation incumbent in the plan is out of balance: that is, it is strong on the environmental and greening side, but it is weak on the issues of public health and the socioeconomic needs of the majority of the population that lives along the L.A. River.
04-03-05 
01 Many of the commentators have talked about education and soccer fields and jobs for the community, and they are all absolutely in agreement with our position. And we feel this is an imbalance that can be corrected. We have already begun to meet with you all and many of you all have shown us very good faith. And we are optimistic that we can correct the narrative. And the reason I use that term is because we know that not all this process is finished and a lot of the projects are not all figured out. But it's very important that the basic vision that is emitted by the City leaders get it right at the beginning of this official process.
04 We don't want to have to be trying to run around, putting in our issues and our themes. We should be included from the outset. And we believe that we should not separate things like community health and jobs and affordable housing and schools from the greening of the river. We believe it's one united cloth, social cloth, if you will. Whatever is good for nature, what's good for the people, should be together.
02 And that's really our critique. And we want to work with you to make it right and we're going to submit language and submit these written comments. And just to

Responses

T-16-2: Comment acknowledged.

T-17-1: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City. Also, see response to Comment T-14-3, Chapter 8 of the LARRMP, regarding future community planning activities, and Chapter 10 of the LARRMP, regarding implementation issues.

T-17-2: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.
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T-17-3: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City. Such feedback should also be communicated during the implementation of individual LARRMP projects as they move forward. Again, see Chapter 8 of the LARRMP regarding future community planning activities and Chapter 10, regarding implementation.

T-17-4: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.

T-17-5: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.

T-18-1: Comment acknowledged. The issue of public water safety and the increased potential for drowning and injury associated with increased opportunities for river access is addressed in the PEIR/PEIS in Sections 3.11 and 4.11 (Public Health and Safety).

T-19-1: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City. Please see Chapter 10 of the LARRMP, which addresses implementation issues, including gentrification. Also see Chapter 8 regarding community planning. As of this printing, the Boyle Heights Community Plan is undergoing an update; please contact the City’s Planning Department to find out more.

Responses

T-17-3: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City. Such feedback should also be communicated during the implementation of individual LARRMP projects as they move forward. Again, see Chapter 8 of the LARRMP regarding future community planning activities and Chapter 10, regarding implementation.

T-17-4: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.

T-17-5: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.

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T-19-1: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.

T-20-1: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.

T-20-2: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City. See, in particular, the LARRMP recommendation No. 5.16 to create a River Arts Program.

T-20-3: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City. See response to your first comment, above.

T-20-4: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.

T-20-5: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.

T-20-6: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.
T-21-1: Comment acknowledged. In accordance with CEQA and NEPA guidelines, both the draft LARRMP and the draft PEIR/PEIS have been available on the City website, and copies were placed in local libraries at the beginning of the comment period in late January 2007, and will remain available at those locations until the comment period closed on March 27, 2007. At the time that this comment was received (during the Public Hearing on the draft PEIR/PEIS on February 24, 2007), there was still one month remaining in the comment period.

T-21-5: Comment acknowledged.
T-22-1: Comment acknowledged. See response to Comment T-17-3.

T-23-1: The PEIR/PEIS indicates that parking is an issue to be addressed in transportation and parking studies that will accompany specific the implementation of future LARRMP projects.

T-23-2: Comment acknowledged. See response to Comment T-17-3.

T-23-3: Cultural Resources have been addressed in the PEIR/PEIS, and recommendations have been made to study, evaluate and mitigate any potential impacts to cultural resources when specific LARRMP projects get identified and proposed. This comment was also passed on to the LARRMP planning team for further consideration. See also Chapter 5 of the LARRMP, which recommends the inclusion of local arts and culture in river project development.

T-24-1: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City. Please see Chapter 8 of the LARRMP, which discusses future community planning activities.

T-24-2: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.
T-24-2

polluted water into the ocean, which is a very important point of view. But how do you integrate this river and make it a river again? How do you integrate community into this river? I know you have taken some steps at it, but it still seems like there's way too much industrial, M-1 zoning, along the river. M-1 zoning, if you wanted to pursue any kind of residential in an M-1 zone, you would have to go through a huge discretionary approval process. I think it's very important to respect all along the river to allow for the greatest flexibility in how the land is developed so that there is an infrastructural encouraging, a zoning encouraging of mixed use like San Antonio, residential, commercial and the parks. How do we make it a resource that people want to live and look at and enjoy? How do we make it a river again and make it integrated into our community? So I am very disappointed. There's, I think, M-1 allowed, particularly in CD14, and in this area where it's M zoning along the river, bad, bad, bad. It needs to be a mixed use zoning. And that's very, very important. And I don't know exactly how you're working with the L.A. City zoning and planning director in this effort, but I think that before you finalize this plan, there needs to be more and a sort of broader outreach as to the master planning and zoning aspect in the City of Los Angeles. Thank you very much.

MR. BROADFOOT: Thank you very much.

MR. CASTILLO: Good afternoon. My name is Juanita Castilho. I'm at home in Boyle Heights, I have been here living for almost 17 years, I came from Mexico. And one person said we need education. The education had to start when you come to this country. I had to go to school to learn English and this is the chance that this country gave us to speak.

One of the concerns is safety. We can build a beautiful river, but if it's not safe for me to go there, it's not going to be doing nothing. Safety should be a priority for kids, for youth, for all people to go and enjoy the beauty of the green.

There's two things I believe, education and environment. This brings everything together, education and environment. And I just applaud and I hope I can still participate and give my opinions. But I believe, like somebody said, we need parks, we need housing, we need schools. We need to get involved. If we don't get involved, nothing is going to be built. And we do need everything. But we have to start working, speaking, and don't let people use you to go and speak for this. I don't represent any organization. I speak by myself and I encourage everybody to come by themselves. Don't take somebody else to give the credit. Take the credit for yourself and for people who really work for those people who do all the work.

So I want to congratulate you and thank you for giving us this chance that America gave us to speak out from our heart and from our mind. Thanks.

MR. BROADFOOT: Thank you, sir.

MS. REYES: Hi. My name is Valerie Reyes and I...
Public Comments and Responses

Comments

T-26-1

Now, I happen to be a mother of eight kids. Now, if I bring my kids down to any one of these parks for the river that you guys are talking about forming up, what are you going to do for my kids to keep them occupied? To keep them interested? What are you going to do to educate them on while they're there at the park? Anything that I do with my children has to be educational. Any trips that I make with my children are always educational. What I see here is basically we can teach them a lot about the trees, a lot about the grass, and talk about the river. But what else is there? There's more to life than just that.

And in the parks that we have nowadays, they're right as far as the culture where we come from. You have to be sensitive to that. If I take my kids to a park in East L.A., they're going to be little, okay, this is where we go fishing. How do we fish? They're going to want to know how you go about fishing, what kind of fishes are in there? Are you able to eat them? How can you dissect them and make sure you don't get sick from them and what have you. There's a variety of things in there. But if I take them to a park outside our community, they're like, "Well, Mom, how come they eat different." And "How come," you know, and then we teach them as far as our culture.

But you guys are not talking anything about culture. You have been talking anything about every child individually. Remember, we work with different ages and stages of kids throughout them growing up, and if you can't provide education, if you can't provide us with adequate -- if you can't provide them with adequate activities, educational activities, then how can you say that this is family park? It's not. But it has to be family.

And if you want the community involved, then here's what you have to do, is get the families back involved. You want the mothers and fathers to jump up and say, "Okay, we want to get involved, help you do the fund-raising, help to get this program going. We have the resources." They're not going to do it unless you're going to benefit their children. So you need to work on that more. Thank you very much for your time.

T-26-2

T-26-4

T-23-4

F-219
T-27-1: Comment acknowledged.

T-1-5: Comment acknowledged.


T-1-5: I will touch on the education and the lady over here who mentioned that we in Cypress Park have done nothing. I'm sorry, she's uninformed and uneducated.

T-5: I live in Cypress Park for 42 years. And I have done my part. For the last 20 years, I have -- Oh, I'm sorry. I didn't say my name. My name is Alexia Teran and I live in Cypress Park. Earlier when I mentioned all the members -- a member that I am of three organizations. I didn't mean to speak for that. I just mentioned that because I believe in education. Education encompasses everything. So I want education for everybody. Not just for some cultures or genders.

T-1-5: Everyone. So having said that, we have been working on the L.A. River for many years. Clean ups. That's one of the things that we've done. Also, there is a lady by the name of Melanie Puentes. She has done a lot for the river.

And I participated in that beautification of the river. We have done little plaques, which I hope they will come and be there for that opening day, which is coming soon. And also there is -- I don't know if they're still here, it's a large percentage of kids from the Anawak organization. They usually go out there and do clean ups. So when you say that we haven't, I'm sorry, but, lady, you are uninformed.

So I have to make that point. And for the lady who has a lot of children, there are ways to be educated.

As I mentioned before, Melanie Puentes, she came to me, because, as I said before, I live in Cypress Park and I volunteer for everything. She came to me, went to the elementary. We encouraged a classroom of children to participate, educate themselves about the river and participate so when they own the river they'll take care
MR. BROADFOOT: Thank you very much.
Before I turn the microphone over to Gary for
sending us out, I just want to mention two things. One,
to the gentleman that mentioned the report that we just
did is not available, I just wanted to say it is actually
available on the website of the City, of the
L.A. River.org website. You should be able to find it
there. If not, just call Carol and she'll get you hooked
up with a copy, so I wanted to mention that.
Also, Miguel Luna, we want to translate for the
Spanish-speaking people here.
Those who are Spanish-speaking, if you want to
contact Miguel Luna, (213) 481-2937, or his e-mail,
"Miguel.Luna at L.A. City.org." And he will help you to
make your comments if you need to do it that way.
MR. MOORE: Thank you, thank you, thank you.
(Public hearing adjourned at 1:00 p.m.)
Comments

EIR/EIS Hearing Feb 27 2007 Canoga High A4478MOD.TXT

LOS ANGELES RIVER
REVITALIZATION MASTER PLAN

DRAFT PROGRAMMATIC ENVIRONMENTAL
IMPACT REPORT

DRAFT PROGRAMMATIC ENVIRONMENTAL
IMPACT STATEMENT
PUBLIC HEARING

TRANSCRIPT OF PROCEEDINGS
CANOGA HIGH SCHOOL
CANOGA PARK, CALIFORNIA
TUESDAY, FEBRUARY 27, 2007

REPORTED BY:
RUBEN GARCIA
CSR No. 11305
Job No.: A4478MOD

Responses
Comments

EIR_EIS Hearing Feb 27 2007 Canoga High A4476MOD.TXT

IMPACT STATEMENT

PUBLIC HEARING

TRANSCRIPT OF PROCEEDINGS, taken at
Canoga Park High School, 6850 Topanga Canyon,
Canoga Park, California, commencing at
8:24 p.m., on Tuesday, February 27, 2007,
reported by RUBEN GARCIA, CSR No. 11305,
a certified Shorthand Reporter in and for
the State of California.

0003

APPEARANCES:

01

02

03

04

Staff:

04

Alex Watt

U.S. Army Corps of Engineers

Los Angeles District

05

David Broadfoot

Tetra Tech Consultant

06

Gary Moore

City of Los Angeles Department

of Public Works, Bureau of Engineering

08

Chris Robert

The Robert Group

Community Outreach

09

Ira Artz

Tetra Tech

Team Leader/Project Manager

12

Deborah Weintraub
Comments

EIR EIS Hearing Feb 27 2007 Canoga High A4478MOD.TXT
City of Los Angeles Department
of Public Works, Bureau of Engineering

Carol Armstrong
City of Los Angeles Department
of Public Works, Bureau of Engineering

Scott Jordan

Bill Wenk
Wenk Associates
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04. Public Comments 13
05. Adjournment 26

EXHIBITS
(None)
EIR_EIS Hearing Feb 27 2007 Canoga High A4478MOD.TXT

0005 Canoga Park, California, Tuesday, February 27, 2007
002 8:24 p.m.
004
005 MR. BROADFOOT: We're going to get started with the
006 formal public hearing portion of the evening, and I will
007 introduce our court reporter, Ruben Garcia. He's a light
008 heavyweight boxer, and he really is. He's also a good
009 court reporter. So he's here and he's going to
010 record the formal hearing portion of this meeting tonight.
011 We've closed officially the workshop portion and
012 row we are opening up the formal hearing on a different
013 document, but one that is supporting the Master Plan.
014 The document that we'll be talking about here
015 and wanting your comments on is a combined document, as
016 you have heard, which is a combination of both the state
017 and the federal requirements for looking at environmental
018 impacts that could be associated with this long term, as
019 well as perhaps short term, implementation of the Master
020 Plan.
021 And as you might imagine -- feel free to take
022 your seats and those of you who have signed up to make
023 comments, we'll give you some ground rules about that in a
024 couple of moments.
025 I just want to take a few moments to say a few
006 words about the Environmental Impact Report and
026 Environmental Impact Statement that we have done.
027 My name is Dave Broadfoot, and I am with Tetra
028 Tech. And I have had the privilege of overseeing, being
029 the leader of about eight to ten people, professional
030 people who have prepared the Environmental Impact Report
031 and Environmental Impact Statement for the implementation
032 of the projects that could come out of the concepts which
033 are presented in the Master Plan.
034 And the Master Plan, as has been said, is
035 concept, is at the concept level, but the guidelines from
036 the federal government and from the state government
037 regarding environmental impacts include as early as
038 possible to start looking at the potential impacts so that
039 decision-makers can say, "Oh, wow, that's a lot of impact
040 for what we're talking about, so maybe we should adjust
041 what we're talking about."
042 So taking a programmatic approach is what we're
043 doing here. But it's well-timed to do that now because
044 row is the time we can make some changes.
045 And there's a second reason, too. And that is
046 that if you do a Programmatic Environmental Impact Report
047 row, it can help streamline and cut down the time and
EIR/EIS Hearing Feb 27 2007 Canoga High A478000.TX1

24. effort involved in the subsequent projects that will come out, hopefully will come out of the Master Plan, as money gets appropriated or becomes available, as communities get interested in doing different things, as the City may move forward with some suggested plans and so forth. So there's a lot to be done and we have taken the first step in doing the environmental analysis of impact. So right now we're at the second meeting here at Canoga Park, and we'll have one more meeting tomorrow night.

0007
08 night.
09 We really are looking at the 32 miles, and we're looking at a half a mile on each side of the 32 miles between Canoga Park and the City of Vernon, and all of the City of Los Angeles. We're looking at the corridor and the five opportunity areas that have been discussed already.

10 Just a couple words about our approach. Because there's so much involved in the Master Plan, we decided we would boil things down to what is going on when they talk about river channel modifications, and what is going on when they're talking about open space, things like parks and green streets and all those things. So we made a long list of those. And then we said let's take a look and see what happens along the river corridor and the five opportunity areas if those things were to happen.

14 And we also then looked at the alternatives that were addressed in the Master Plan, and there's two of them for four of the five opportunity areas, and Taylor Yard has one alternative that we looked at, otherwise we looked at two alternatives for each.

0008
03 And we also looked at a pretty comprehensive list of environmental factors here, 16 areas that even have some subdivisions, as you can see. But we hope that this was a pretty comprehensive list, and we asked ourselves, what could possibly happen to these resource areas if projects were to become reality in creating a greenway or creating a pedestrian bridge or fixing, you know, expanding on some of the river channel or changing the river channel and so forth. So we looked at all of those different things.

14 We found that about 10 of the 16 had certain aspects that could have the potential for significant impacts. And so we were raising the flag even at this program level, saying to the City and to the Corps of Engineers and to all the communities, you know, look at these areas in particular when you're going to look at projects because these are the areas that are most likely to have potential impacts of significant levels.

21 And some of the types of impacts that we're talking from rust, as you might imagine, during construction. There are some biological areas that are a quite nice habitat, and they could be adversely affected during construction.

0009
01 There's cultural resources all along the river corridor, and these could be affected significantly too if we're not careful. People that are living along the river, especially the people that perhaps are low income or minorities that are living along some parts of the river, could be affected perhaps with having to look at some job
Public Comments and Responses

Comments

F-227

EIR EIS Hearing Feb 27 2007 Canoga High A4478MO1.TXT

09 losses or something if some land use changes were to take
10 place.
11 We also talked a lot about water quality today,
12 and that’s an issue that could be significant as well.
13 Land use. There’s land use planned all along
14 the river, and to go in and make some changes that are
15 being talked about in the Master Plan, could have
16 significant impacts without – so you have to look at what
17 the existing plans are as well.
18 There is noise, as you might imagine, during
19 construction. There’s public health and safety issues as
20 we talked about a lot here today. And we recognize and
21 assess those as well.
22 And then things like socioeconomics, the jobs
23 could be affected and people’s homes could be affected and
24 so forth.
25 So those kinds of impacts we felt could be

01 significant and need to be looked at in great detail when
02 projects get identified. I think we talked a little bit
03 about those.
04 And then transportation is a big issue, as you
05 know, in Los Angeles. And whatever you do is going to
06 either increase traffic or decrease parking or have some
07 effect on our circulation patterns and so forth. So those
08 things really need to be looked at carefully.
09 We also searched to find and wrote into the
10 document what we call mitigation measures. And we
11 applied – these can be applied to all 16 resource areas.
12 These are measures that can be taken during construction
13 and during operations and during maintenance and so forth
14 that we feel if they are measured or taken, they could
15 reduce the potential impacts.
16 And it is our assessment that with the range of
17 mitigation measures that are available from past
18 experiences, if they’re applied, we feel that the levels
19 of impacts would be reduced to non-significant levels.
20 Not that they would not be there, but they could be
21 perhaps less than significant. This is our assessment
22 that we made in the document.
23 And I listed some of the potential mitigation
24 measures here. I won’t take the time to go through them,
25 but have a look here and see that there’s things that can

01 be done to control noise, to do traffic impact analysis,
02 and parking, increasing parking and so forth. There’s the
03 socioeconomics could be looked at. There’s mitigation
04 measures that could be applied to all 16 categories to
05 reduce the level of impact.
06 We are now at the stage of having completed the
07 draft document. It’s available on the website, as Gary
08 had mentioned earlier, and we urge you to look at it if
09 you haven’t done so already.
10 And tonight, to move on to what we’re really all
11 about in the hearing portion tonight, is to give you a
12 chance, those of you who want to make your verbal comments
13 or oral comments tonight, we have the court reporter that
14 will be making a transcript of what we’re saying here.
15 But that’s not the only way that you can make
16 comments. We have comment forms that you might have seen
17 when you came in. They’re still available back there.
18 Please take a comment form and fill it out and send it in
19 to the City. The address is there, Carol Armstrong’s

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Responses
T-28-1: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team.

F-228
F-229
Public Comments and Responses

Comments

T-28-1
05 flooding, or that there won't be flooding, like that
06 concrete-lining river.
07 I don't know why in all the plans there's
08 constant talk about getting rid of that concrete lining.
09 It saves Los Angeles. It works. Why tamper with it?
10 Maybe this will work. But maybe it won't. If it doesn't
11 work, it's disaster. We know something works now. So in
12 my opinion it's mindless to talk about tampering with the
13 river and removing the concrete lining.
14 MR. BROADFOOT: Thank you very much for your comment.
15 MR. SALIK: Hi. My name is Adam Salikin. I grew up
16 in the area, and I mentioned some of my concerns earlier.
17 Basically, my concerns are that I read that
18 there eventually could be boats, fishing, swimming,
19 playing in the water, and contamination in the water.
20 Basically, the water quality is my concern.
21 I want to make sure that the Department of
22 Health Services, Department of Toxic Substances Control,
23 which I saw on there, is actually saying that the water is
24 safe before it gets to the point where people are touching
25 the water and playing in it, that it's being tested not
26 only for the metals that are mentioned in the paperwork
27 that you have in the Master Plan, but other things like
28 tritium, chlorate, things that have been found coming down
29 off of the Santa Susana Field Lab where I grew up.
30 There's a lot of people that have health problems in that
31 area, and if the river is opened up, my concern is that
32 more people are going to be affected by the toxic
33 chemicals that are coming down off of that site.
34 Also, things like fires, Pratt and Whitney was
35 mentioned in the plan before in Canoga Park. There was
36 uranium here that was there. That's actually touching the
37 river. So I want to make sure these things, the water
38 quality is at a safe level before kids play in it. Thank you.
39 MR. BROADFOOT: Thank you.
40 MR. JACOBI: My name is Rob Jacobi. I'm owner of a
41 small business here in Canoga Park. Been there for 48
42 years. We're now in harm's way. As a member of both the
43 Chamber of Commerce of Winnetka and Canoga Park, I have a
44 real problem, like any small business, just to line the
45 pockets. Canoga Park High School has been here for 90
46 years. You people are developing this water feature
47 32 miles. This school doesn't have a pool. We don't have
48 the money for a pool for the school. It's all about the
49 kids. And I don't think the future of our kids should be
50 paying for 20 or 40 years from now keep paying for this
51 project. As a responsible parent I can't believe in this
52 project, spend that kind of money. Thank you.
53 MR. BROADFOOT: Thank you, sir.
54 MS. BURMAN: My name is Tsilah Burman. I'm executive
55 director of the Los Angeles Neighborhood Land Trust that
56 creates parks and community gardens in low-income
57 communities, and I am also a resident of Woodland Hills.
58 I just wanted to comment on the importance of pocket parks
59 and greenways. And how the river bisects many underserved
60 communities which desperately need open space.
61 They are underserved and under-parked, and the
62 possibilities that this Master Plan opens up to those
63 areas I think will be an asset to the communities that it

Responses

T-29-1: Comment acknowledged. In the Final PEIR/PEIS, language will be added to Section 4.5.8 (Mitigation Actions and Best Management Practices) regarding water quality, and to Section 4.11.2.1 (General Types of Impacts and Mitigation) regarding potential HTRW in the River Corridor. The Canoga Park area will be included for example.

T-29-2: Comment acknowledged. See your previous comment for response.

T-30-1: Comment acknowledged.

T-31-1: Comment acknowledged.
<table>
<thead>
<tr>
<th>Comments</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-31-1</td>
<td>T-32-2: Comment acknowledged.</td>
</tr>
<tr>
<td>T-32-1</td>
<td>T-32-1: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.</td>
</tr>
<tr>
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<tr>
<td>T-33-2</td>
<td>T-33-2: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.</td>
</tr>
<tr>
<td>T-33-3</td>
<td>T-33-3: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.</td>
</tr>
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<td>T-33-4</td>
<td>T-33-4: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.</td>
</tr>
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</table>
Public Comments and Responses

Comments

T-33-4
01 EIR, EIS hearing Feb 27 2007 Canoga High A4478M00.DXT
03 the master plan to override those particular things. We
04 really need to have our own character, and ours is a
05 unique situation so we would like community input on our
06 projects.
07 Weddington Park is right next to Studio City.
08 It’s right next to Universal. And residents there have
09 asked me to say that Universal is now doing a huge, huge
10 development plan right next to Weddington High-rises in
11 parking structures, and the density within the park off
12 people who come over from the more commercial areas and
13 the very high-rises is already making it nearly unbearable
14 in the park.
15 So they request that whatever is done there is
16 natural and does not ask there to be more traveling
17 to those parks because it’s making it almost unbearable
18 for the residents as it is.
19 I also want to say that the master plan as it
20 goes along with the RIO afterwards, that it should be
21 flexible in the way that it flows. In Studio City one
22 way, in the cornfields another way as to the width of how
23 this is so that each community can be configured in a
24 separate way as to what the residents and people who work
25 there need.
26 Two other things, one is CSS Michael Klausman
27 has empowered me to say that security is really important.
28 T-33-5
01 to do with them, the security of the lot, and that right
02 now there cannot be public access to the river there, and
03 he would like that to be honored.
04 And my final thing is what I had mentioned
05 before about Studio City golf and tennis. We really want
06 to make that prototype to do the best practices on the
07 cutting edge, hydraulic infiltration water systems and
08 also best practices of organic rather than chemical usage.
09 And we’re going to try to build a coalition to make that
10 happen. Thank you for your efforts. I have been
11 following this with many other residents for over two
12 years and we look forward to cooperating with you.
13 MR. BROADFOOT: Thank you.
14 MR. OHLERKAMP: My name is Kris Oehlerkamp, and I have
15 lived in the west valley for about 35 years. I am also
16 president of the San Fernando valley Audubon Society and
17 my comments are related to the biological resources of the
18 document. I have three recommendations.
19 You mentioned that there will be some short-term
20 disruptions of the biological resources during
21 construction. A lot of that can be alleviated if
22 construction is only done from September through January
23 because the river is already being used as a connector by
24 migrating birds and breeding birds during the other period
25 of time.
26 T-34-1
01 Number 2, I also recommend that all of the
02 planting along the Los Angeles River be native plants.
03 That would cut down both on maintenance costs and to
04 improve the wildlife values rather than sod and nonnative
05 plants.
06 Thirdly, the Habitat Island in the chinatown
07 cornfield section could be improved if public access to
08 that island was eliminated and just birds could be using
09 that island as a nesting place as well. So those are my
10 comments. Thanks.
11 MR. BROADFOOT: Thank you very much.
T-35-1: In the Final PEIR/PEIS, specific language from your comment will be added to Sections 4.4.8 and 4.5.8 (Mitigation Actions and Best Management Practices) regarding soils and water quality, respectively, and to Section 4.11.2.1 (General Types of Impacts and Mitigation) regarding potential HTRW in the River Corridor.

T-36-1: Comment acknowledged.

T-36-2: Comment acknowledged.

T-36-3: Comment acknowledged.

T-37-1: Comment acknowledged.
T-37-1: Comment acknowledged.

T-37-2: Comment acknowledged.

T-37-3: Comment acknowledged.

T-38-1: Comment acknowledged.

T-39-1: Comment acknowledged.

T-40-1: Comment acknowledged.
T-40-2: Comment acknowledged.

T-40-3: Comment acknowledged.

I also think it hearing what you're saying, one of the things that I would like to have as part of the communication from the committee is that these -- the water tests, as they're done at each site or safety tests, be available through the website so that as people have questions about what's upstream and what's downstream, it becomes available.

And finally, among the things that you discussed that I think are most important are not even as much the paths along the river that will naturally develop, but the ideas of the fingers reaching out from that river into each of the communities so that it draws people down and again serves as a unifying force. Thank you very much.

MR. BROADFOOT: Thank you. Any other people wanting to make a comment for the record?

And remember, there are other ways that you can comment, either on line or through the paper comment forms or letters or phone calls. And Carol Armstrong is right here. If you want to talk to her, she's right here.

She's the project manager.

So that will conclude the public hearing. Let me say thank you on behalf of Gary Moore and everyone else who participated tonight. Thank you for coming and thank you for participating.

(Public hearing adjourned at 8:59 p.m.)
EIR EIS Hearing Feb 28 2007 MWD A449800C.TXT

LOS ANGELES RIVER
REVITALIZATION MASTER PLAN

DRAFT PROGRAMMATIC ENVIRONMENTAL
IMPACT REPORT
DRAFT PROGRAMMATIC ENVIRONMENTAL
IMPACT STATEMENT
PUBLIC HEARING

TRANSCRIPT OF PROCEEDINGS
LOS ANGELES METROPOLITAN WATER DISTRICT
LOS ANGELES, CALIFORNIA
WEDNESDAY, FEBRUARY 28, 2007

Reported by:
RUBEN GARCIA
CSR No. 11905
Job No.:
4498000(C)

LOS ANGELES RIVER
REVITALIZATION MASTER PLAN
DRAFT PROGRAMMATIC ENVIRONMENTAL
IMPACT REPORT
DRAFT PROGRAMMATIC ENVIRONMENTAL
TRANSCRIPT OF PROCEEDINGS, taken at

Los Angeles Metropolitan Water District,
700 North Alameda, Los Angeles, California,
commencing at 8:15 p.m., on Wednesday,
February 28, 2007, reported by RUBEN GARCIA,
CSR No. 11305, a Certified Shorthand Reporter
in and for the State of California.

0003
01 APPEARANCES:
02
03 Staff:
04 Alex Watt
U.S. Army Corps of Engineers
Los Angeles District
05 David Broadfoot
Tetra Tech Consultant
06
07 Gary Moore
City of Los Angeles Department
of Public Works, Bureau of Engineering
08
09 Chris Robert
The Robert Group
Community Outreach
11
12 Ira Artz
Tetra Tech
Team Leader/Project Manager
Comments

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Exhibits

(None)

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Los Angeles, California, Wednesday, February 28, 2007
8:15 p.m.

MR. BROADFOOT: I would like to convene the formal hearing part of the evening. If you wouldn't mind taking your seats, I will say a few opening remarks and I will ask a representative from the Corps of Engineers to say a few words as well.

My name, again, is Dave Broadfoot. I'm with Tetra Tech and I am an environmental planner, scientist, and I have had the privilege of heading up a group of eight professional people who have been working on developing the combined programmatic EIR and programmatic EIS for the L.A. River Master Plan.

So those who want to discuss things, if you wouldn't mind going out into the hall, that would be a great place to do those discussions rather than in this room. So we'll just wait for you folks to do that.

So I assume that those folks that are in the room want to be here for the formal hearing part. You're perfectly welcome to go outside and talk to the community planners or anyone out there.

But let's get started with formal public hearing.

A requirement of both CEQA and NEPA is that when a government agency moves forward on a project, there needs to be environmental review taking place according to some pretty prescribed protocol. And that's what we have undertaken with the EIR/EIS. And it is a collaborative effort between the city and the Corps of Engineers, as has been mentioned.

It is a different document than the Master Plan. And if you haven't had a chance to look at it, I encourage you to do so. We haven't been able to keep it under 600 pages unfortunately, which is the case with these environmental documents sometimes.

And even though we're at a programmatic level, it's important to bring forward, to raise the flag on where the potential environmental impacts are that could be significant and that really need to get attention in looking at specific projects which might take place.

And so I would like to ask Alex Watt to come up from the Corps of Engineers. Alex is the chief of the Environmental Branch of the Los Angeles District of the Army Corps of Engineers, and I'll ask Alex for a few opening remarks.

MR. WATT: Thank you, David. We have been doing...
Comments

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24 environmental restorations since the early '90s. And
0007 we're very happy to be working with the city of
01 Los Angeles on this project. Other ones we've done in the
02 past have been the Rio Salado project in Phoenix, Tres
03 Rios project in Phoenix. The Corps is also involved in
04 the Guadalupe River up in San Jose and also the Rio Grande
05 in Albuquerque.
06 So for us in Los Angeles it's very nice to have
07 this restoration project basically right on the doorstep
08 of our offices. So we're really looking forward to
09 working with the city on this and continuing on. Over the
10 next several years we'll be working on getting the river
11 up where we can get the restoration done on it, get some
12 bike paths and such along the edges of it.
13 The prime thing is we want to make sure and
14 maintain that the flood control is still in place so that
15 there's no additional -- any potential for any additional
16 flooding. But we will make sure we can get the
17 restoration done so that everyone enjoys it. David.
18 MR. BROADFOOT: Thank you, Alex. I just want to say
19 a few words to introduce the study that we have done here
20 of the environmental -- potential environmental impacts of
21 the potential projects that may come out of the Master
22 Plan.
23 This is the third of three public hearings that
24 we've held. And as has been said, our study area has been
25 the 32-mile corridor of the Los Angeles River from Canoga
0008 Park down to the city of Vernon through the city of
01 Los Angeles. Half a mile on each side of the river has
02 been our study area. As well focusing on the five
03 opportunity areas as well.
04 But it was a pretty daunting task to try to look
05 at all the things that were being talked about in the
06 Master Plan. So what we did, with the help of the Master
07 Plan team, was kind of boil down what we felt were the
08 particular features that would be taking place, regardless
09 of where they might be placed, and those features would
10 fall in the categories of channel modifications or open
11 space measures that we had a long list of open space
12 measures from the greenery of the streets to the parks to
13 all the recreation types of areas to the infiltration
14 areas to the wetland areas and so forth, habitat
15 restorations.
16 And so we had those two general categories. And
17 then we proceeded to look at the reaches, knowing that the
18 different reaches would be where different types of river
19 channel modifications might be effective.
20 The five red areas there are the five
21 opportunity areas that we focused on. And I mentioned in
22 our question-and-answer session, if you were here, that we
23 looked at the alternatives that were presented to us by
24 the master planning team for the five opportunity areas.

Responses

And with the single alternative at Taylor Yard.
02 And important to me is that we looked at 16
03 resource areas, and we asked ourselves the question, what
04 could possibly happen to these resource areas from the
05 potential features and projects that might come out of the
06 Master Plan.
07 This is a pretty comprehensive list. And we've
08 found that 10 of the 16 were areas where potential impacts
09
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it was important to point out that there are these areas where significant impacts could take place. And they could range -- these impacts could range from things like dust -- obviously construction impacts are pretty big for any of these types of projects. Disruption to the biological resources in some of the high-quality areas that are and that you know of. The cultural resources, the potential for significant impacts here, because there are cultural resources that are known and unknown along the river corridor. There are people living along the corridor that may be economically disadvantaged. And those folks need some particular attention when it comes to looking at changing land use or involving with developing any of the

Implementation

And water quality issues. When you are constructing, you are creating sediment, and there's all types of other water quality issues, as you well know, that we felt could be significant here that needed to be addressed. Same with land use. There are land use plans in place along the river corridor, and any changes to those would have to be well-researched and interfaced with the communities.

Noise is a big factor, as well as public health and safety, as you know, not only in the vector diseases that could be increased with increasing ponding of water and that type of thing, but also the potential for drowning and other water-related accidents and death that could occur. So we felt that these are potentially significant areas. The socioeconomic impacts could be significant. Transportation. I've heard people talk about the fact that parking and circulation of traffic and all of these issues could be significant. So we felt that these should be looked at in detail when the projects are identified for implementation. But also we, as part of our work, looked at the potential mitigation that could take place.

And as you know, the use of mitigation measures during construction and operation, the use of best management practices, which have a history of being able to reduce impacts. And so our task was to identify these types of measures which should be incorporated into future projects and future environmental evaluations of such projects. I won't go into the details, because the important thing for this portion of the meeting, the hearing, is to hear your comments. And so we want to get to that fairly soon here.

I just listed some of the potential mitigation measures that could -- in our opinion, we felt that by using the mitigation measures, which we've identified in the EIS and EIR, we feel that these could very likely reduce the level of impacts to less than significant levels. So that was encouraging as well. Just to let you know, we're in the phase of reviewing the draft. If you haven't had a chance yet to look at the EIR/EIS, I encourage you to do so either
Comments

T-41-1: Comment acknowledged.

Responses
T-42-1: The PEIR/PEIS team and the City acknowledge that changes in land use discussed at the concept level in the LARRMP would be inconsistent with local community plans. It was decided that indicating at this programmatic level that such inconsistency could constitute potentially significant impacts would call attention to the need for conducting appropriate and sufficient community-based planning and interaction as future projects are identified in specific communities.

T-42-2: The PEIR/PEIS team and the City acknowledge that increases in the use of existing parks would have beneficial aspects. However, it was felt that attention should be called to the increased demand that such increases could place on local and area roadways, parking, public safety, and emergency services. These increases may require that appropriate mitigation measures are incorporated into future projects to alleviate potential adverse impacts.

T-42-3: Comment acknowledged. In the Final PEIR/PEIS, language based on your comment will be added to Section 4.11.2.1 (General Types of Impacts and Mitigation) regarding potential HTRW in the River Corridor and in the opportunity areas.

T-42-4: Comment acknowledged.

T-43-1: The project area has already registered raises in land prices and has put a strain on the affordable housing and small business sectors. The LARRMP recognizes the need to update existing Community Plans in river-adjacent areas through an extensive and inclusive community involvement process to ensure that LARRMP benefits are as equitably distributed as possible. That Community Plan update process will enable assessment of impacts on housing, loss of affordable housing, jobs, as well as on issues related to zoning modifications, gentrification, and preservation of...
T-43-1 (cont.): community standards in terms of community stability and makeup. This is a stakeholder driven process that is best suitable to gauge community support. The overall policy of the Plan is to encourage the retention and strengthening of stable residential areas, and to balance this with a long-term program to acquire properties for flood protection and river improvement.

T-44-1: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.

T-44-2: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.

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T-44-4: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.

T-44-5: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.
Public Comments and Responses

Comments

T-45-1: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City. (The LARRMP’s recommended three-tiered governance structure, should be established, would be an administrative action and is therefore not addressed in the PEIR/PEIS.)

T-45-2: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.

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T-45-4: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team.

T-46-1: Your comment is more related to the LARRMP than to the PEIR/PEIS. Your comment has been passed on to the LARRMP planning team and the City.

Responses

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T-46-5: Millions of people currently live and work within the historic flood plain of the Los Angeles River. Prohibiting development in this area would displace many people and jobs.

The Pueblo Lake concept was an in-channel concept, within the existing concrete channel; the rubber dams proposed in this area are for the development of the diversion channel near the Chinatown-Cornfields.

Comments on Pueblo Lake were specific to that proposal; additional comments on the rubber dams proposed within the Revitalization Master Plan may be provided when/if rubber dam projects become implemented, as part of a more focused, non-programmatic CEQA/NEPA process.

Responses

T-47-1: Comment acknowledged.

T-47-2: Comment acknowledged.

T-47-3: Comment acknowledged.
T-47-3

T-47-4

T-48-1

T-46-5 (cont.)
T-46-5

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08 stretch of river.
09 MR. BROADFOOT: Thank you for that.
10 Any additional comments? Well, unless Gary
11 wants to say anything, I will just say thank you everyone
12 for coming tonight and for participating. And we will
13 take your comments and respond to them and incorporate
14 them into the Final EIR/EIS. Thank you so much.
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16 (Public Hearing adjourned at 8:47 p.m.)
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