

# Section 1

## Executive Summary

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This Final Program Environmental Impact Report (Program EIR) presents the results of an analysis of the environmental effects of the San Gabriel River Corridor Master Plan (Master Plan) proposed by the County of Los Angeles Department of Public Works (LADPW) as CEQA Lead Agency. The agency and public comments received on the Draft Program EIR and responses to these comments are presented in **Appendix F**. The Master Plan is an overall conceptual plan that focuses primarily on developing the river corridor as an integrated watershed system that enhances habitat, provides recreational benefits, and protects open space, while maintaining and enhancing flood protection and water resources.

### 1.1 BACKGROUND

The San Gabriel River extends from the Angeles National Forest through the San Gabriel Valley and the Los Angeles Coastal Plain to the Pacific Ocean. Engineered modifications currently present along the River provide flood protection for surrounding urban development. These modifications have also allowed development almost to the River's edge, decreasing open space and altering natural habitats. In order to address conditions along the River, the County of Los Angeles Board of Supervisors passed a resolution in 1999 instructing the Department of Public Works to prepare a San Gabriel River Master Plan for Board approval, with the assistance of the Department of Regional Planning, Department of Parks and Recreation, and the National Park Service (NPS) (Rivers, Trails, and Conservation Assistance Program). To develop the Master Plan, LADPW established the San Gabriel River Master Plan Steering Committee (Steering Committee) composed of a broad range of stakeholders, including: cities along the river; water and regulatory agencies; interested community, business, and environmental groups; and other interested individuals. The Steering Committee is open to the public, and members have met more than 40 times over the past 4 years. In addition to the Steering Committee, a Planning Committee consisting of Los Angeles County, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy (RMC), and NPS staff meets monthly.

### 1.2 PROJECT OBJECTIVES

The Steering Committee and LADPW developed a vision statement and a set of broad goals. As defined by the Steering Committee, the vision for the project is:

*The San Gabriel River will be the corridor of an integrated watershed system while providing protection, benefit and enjoyment to the public.*

The following goals of the Master Plan support the vision for the San Gabriel River:

1. Habitat: Preserve and enhance habitat systems through public education, connectivity, and balance with other uses.

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2. Recreation: Encourage and enhance safe and diverse recreation systems, while providing for expansion, equitable and sufficient access, balance, and multi-purpose uses.
3. Open Space: Enhance and protect open space systems through conservation, aesthetics, connectivity, stewardship, and multi-purpose uses.
4. Flood Protection: Maintain flood protection and existing water and other rights while enhancing flood management activities through the integration with recreation, open space, and habitat systems.
5. Water Supply and Water Quality: Maintain existing water and other rights while enhancing water quality, water supply, groundwater recharge, and water conservation through the integration with recreation, open space, and habitat systems.
6. Economic Development: Pursue economic development opportunities derived from and compatible with the natural aesthetic and environmental qualities of the river.

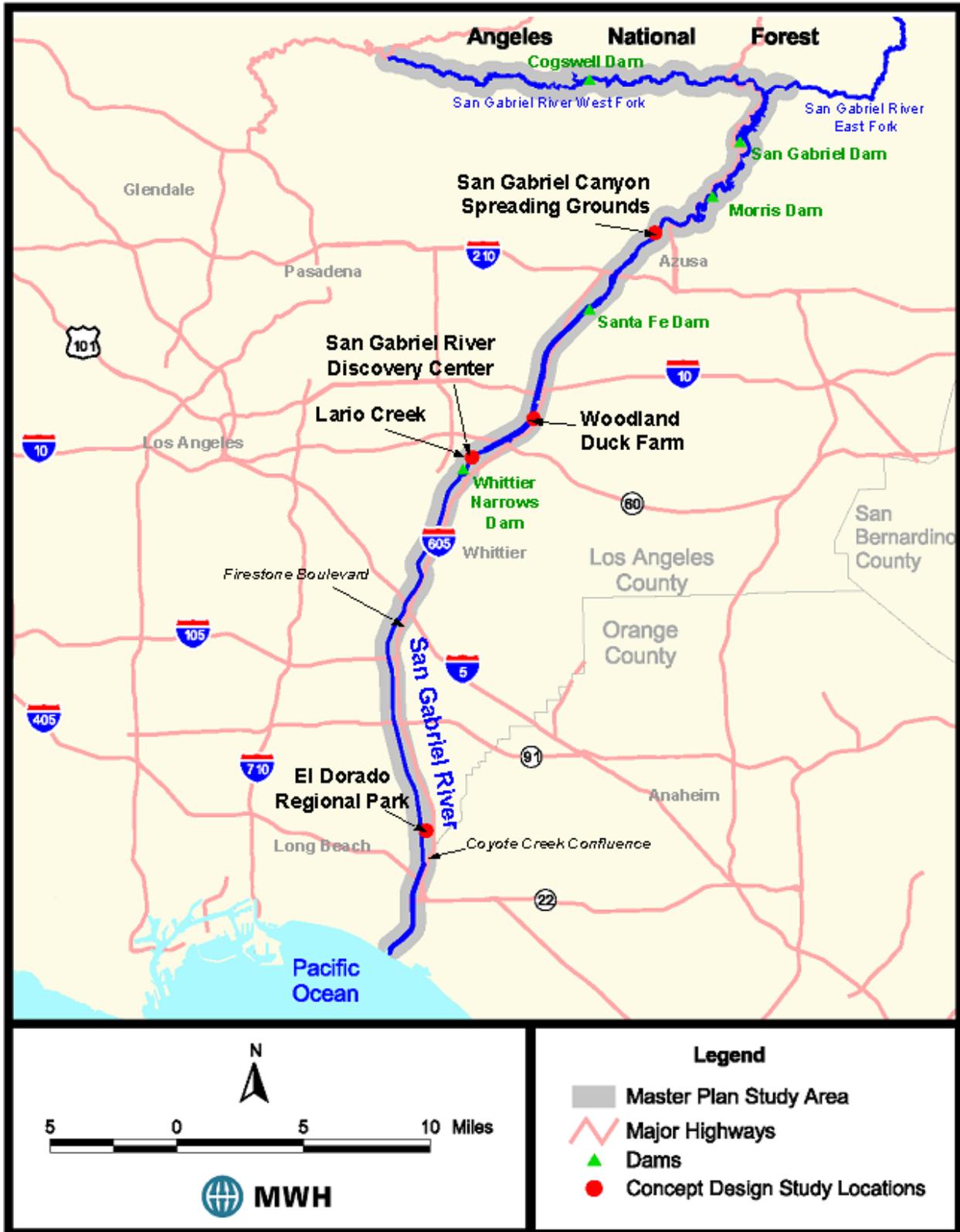
Pursuant to State CEQA Guidelines Section 15124, these goals also serve as the CEQA project objectives for the Master Plan.

### 1.3 PROJECT LOCATION AND ENVIRONMENTAL SETTING

The Master Plan study area is a 1-mile wide corridor along 58 river miles of the San Gabriel River from its headwaters in the San Gabriel Mountains to its terminus at the Pacific Ocean between Long Beach and Seal Beach (**Figure 1-1**). The headwaters extend from the West Fork of the River upstream of Cogswell Dam in the Angeles National Forest. The study area includes 19 cities as well as unincorporated areas of Los Angeles and Orange Counties, and encompasses a total of approximately 58 square miles.

The northern-most portion of the Master Plan study area from the headwaters to the area downstream of Morris Dam is located within the San Gabriel Mountains. Existing land uses in this area consist mostly of open space and recreation areas (Angeles National Forest) and public facilities related to flood control and water resource management (e.g., San Gabriel Dam, Morris Dam and associated maintenance facilities). Downstream of Morris Dam beginning in the City of Azusa, the Master Plan study area consists of a variety of urban land uses, including residential, commercial, and industrial. From Azusa to Long Beach, the River parallels almost the entire length of the Interstate 605 Freeway. Other freeways that cross the study area are (from north to south): Foothill Freeway (I-210), San Bernardino Freeway (I-10), Pomona Freeway (SR 60), Santa Ana Freeway (I-5), Century Freeway (I-105), Artesia Freeway (SR 91), and San Diego Freeway (I-405).

Figure 1-1  
Project Location



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The San Gabriel River is part of an extensive network of channels, dams, and spreading grounds used for flood control and water conservation. LADPW and the United States Army Corps of Engineers are the two primary agencies responsible for operating these facilities. Except in reaches upstream of Morris Dam, the River has been modified to make the channel straighter, deeper, and narrower, and the sides and/or the bottom of the channel have been lined with concrete or stones. The San Gabriel River Watershed (the area that drains into the River) encompasses 635 square miles. The major tributaries to the River are Walnut Creek, San Jose Creek, and Coyote Creek. The Rio Hondo, a distributary of the River, branches from the River just below Santa Fe Dam and flows westward to the Whittier Narrows area.

At Whittier Narrows, portions of the flow from the San Gabriel River are conveyed to the Rio Hondo, which then joins the Los Angeles River. Major flood control and water resource management facilities located along the San Gabriel River include Cogswell Dam, San Gabriel Dam, Morris Dam, Santa Fe Dam, and Whittier Narrows Dam. The Master Plan study area spans two groundwater basins: the San Gabriel Valley Basin and Central Basin. Many spreading grounds are used to recharge these groundwater basins.

### 1.4 PROJECT DESCRIPTION

During the course of the Master Plan development process, over 130 independently sponsored enhancement projects were identified by the member agencies and organizations of the Steering Committee. Each of these projects incorporate one or more of the Master Plan goals of enhancing habitat, recreation and open space, while maintaining and enhancing flood protection, water supply and water quality. The Master Plan provides guidelines to help coordinate these independent projects and to facilitate the achievement of the shared vision and goals for the San Gabriel River corridor.

The Master Plan includes:

- **Master Plan Vision, Goals, Objectives and Performance Criteria** – For each Master Plan goal (habitat, recreation, open space, flood protection, water supply and water quality, and economic development; see **Section 1.2**), the Steering Committee and LADPW defined multiple objectives that support the Master Plan vision and the goal. Performance criteria were then developed to measure progress toward those objectives.
- **River Enhancement Project Concepts** – The following eight categories of project concepts were developed from a collective review of proposed projects along the San Gabriel River. The eight project concepts illustrate the types of projects that can be implemented along the river corridor to help achieve the vision and goals of the Master Plan.
  - Trail Enhancements
  - Educational Centers
  - Bridges, Gateways and Connections
  - Parks and Open Space
  - Redevelopment and Reclamation
  - Habitat Enhancement
  - Water Quality and Supply

- Studies
- **River Corridor Projects, Policies, and Programs, and Design Guidelines** – River corridor-wide efforts, policies, and guidelines intended to connect site-specific projects or address issues common to most Master Plan projects. The aesthetic design guidelines identify the types of materials, colors, and forms that can be incorporated into the design of project facilities (e.g., fences, gates, and walls) and landscaped areas to create an identity for the River.
- **Stakeholder Projects** – Summary descriptions of 134 projects suggested or proposed by Steering Committee members. Five of these projects are highlighted in the Master Plan as Concept Design Studies (see below).
- **Concept Design Studies** – Five of the stakeholder projects are highlighted in the Master Plan as Concept Design Studies (see **Figure 1-1** for locations). The Concept Design Studies were defined to illustrate the types of multi-purpose projects to be fostered by the Master Plan. The conceptual project descriptions detailed in the Master Plan are the result of a Steering Committee exercise to help provide tangible examples of how the Master Plan multi-objective approach might apply to projects in the San Gabriel River corridor. These studies are intended for illustration purposes only and do not necessarily reflect the intent of the project sponsors. Environmental analysis in this Program EIR is based on the conceptual project descriptions in the Master Plan.
  - **San Gabriel Canyon Spreading Grounds** – Proposed by LADPW and the City of Azusa, this project will provide aesthetic improvements and recreational amenities for the area between the River and the San Gabriel Canyon Spreading Grounds. Potential project elements include improvements to the fencing around the spreading basins, landscaping, habitat restoration/enhancements, trail enhancement, and interpretive signage.
  - **Woodland Duck Farm** – Proposed by the Watershed Conservation Authority (WCA), this project will modify an abandoned duck farm site into an open space area with passive recreation and native habitat enhancements. Potential project elements include trails, habitat, improved site access and parking, an educational center, and constructed wetlands.
  - **San Gabriel River Discovery Center at Whittier Narrows** – Proposed by the Upper San Gabriel Valley Municipal Water District, County of Los Angeles Department of Parks and Recreation, and RMC, this project will include replacement of the existing Whittier Narrows Nature Center building with a new San Gabriel River Discovery Center, habitat restoration/enhancements, improvements to the existing trail system, and development of constructed wetlands.
  - **Lario Creek** – Proposed by LADPW and North East Trees, this project will enhance water conservation by increasing the capacity of Lario Creek, a man-made conveyance structure operated by LADPW to divert water from the San Gabriel River to the Rio Hondo through the Whittier Narrows Flood Control Basin. The project also proposes

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improvements to the surrounding Whittier Narrows Nature Area (e.g., trails, signage, constructed wetlands, and habitat restoration/enhancements).

- **El Dorado Regional Park** – Proposed by the City of Long Beach, this project includes improvements to the City’s El Dorado Regional Park. Potential project elements include: development of constructed wetlands, replacement of the existing water supply for the man-made lakes in the park with a non-potable source, and habitat restoration/enhancements.

### 1.5 PROGRAM EIR APPROACH

The Master Plan is a set of policies and actions to increase open space, habitat, and recreation opportunities in the San Gabriel River corridor. Pursuant to the State CEQA Guidelines Section 15168, this document has been prepared as a Program EIR to consider the environmental impacts, mitigation measures and alternatives of the proposed Master Plan as a whole. Because this document is a Program EIR, it generally contains less detail than typical development project EIRs. For the most part, specific sites and/or construction and operation plans have not been determined. The level of detail in the impact analysis reflects the level of detail in the project description. Based on the conceptual designs described in the Master Plan, more detailed descriptions are provided for the Concept Design Studies (San Gabriel Canyon Spreading Grounds, Lario Creek, Woodland Duck Farm, El Dorado Regional Park, and San Gabriel River Discovery Center at Whittier Narrows).

However, since the project descriptions for the Concept Design Studies are conceptual and not approved plans, this EIR is not meant to be a project-level review of the Concept Design Studies, but instead analyzes their impacts (as best as can be determined at this preliminary stage in their design) as examples of Master Plan projects and the types of impacts expected. For each of these sites, the actual planning process by project sponsors still needs to be carried out or is ongoing, including appropriate public involvement and environmental review. For several sites, potential project elements that are different from the concept designs described in the Master Plan have been identified during the planning process by project sponsors. As the Concept Design Studies or other future Master Plan projects are proposed for implementation, project proponents will prepare a second-tier CEQA document (a Negative Declaration or an EIR) for each project. The data on existing conditions, CEQA thresholds of significance, and the programmatic analyses and mitigation measures presented in this Program EIR will then serve as a source of background information and model to guide further project-level CEQA review for the Concept Design Studies, or other Master Plan projects. This document is intended to streamline the environmental review and documentation process for Steering Committee members proposing projects in the river corridor.

### 1.6 CEQA ALTERNATIVES

The Master Plan document does not detail any alternatives. Therefore, for the purposes of EIR analysis, the environmental effects of the following alternatives to the Master Plan were evaluated (**Table 1-1**):

**Table 1-1  
Summary of CEQA Alternatives**

Alternative	Impact Discussion
<p><b>No Project</b> – Under this alternative, there would not be any unifying planning process or Master Plan document to guide individual projects along the river corridor proposed by various municipalities, agencies and interest groups.</p>	<ul style="list-style-type: none"> <li>• Biological resources – reduced consistency of restoration projects, possible reduction in the use of native species and therefore reduced habitat values, no planned wildlife corridors or linkages would be established, reduced coordination for invasive species removal and therefore potentially reduced success of individual efforts</li> <li>• Recreation – reduced integration of trails and reduced focus on underserved areas</li> <li>• Open space – reduced integration of land acquisition, potentially reduced coordination of clean-up efforts</li> <li>• Water resources – elimination of another coordination mechanism for TMDL and NPDES processes</li> <li>• Aesthetics – reduced potential for common design elements for signs, fences, gates, etc.</li> </ul> <p>Under the No Project alternative, the environmental benefits that would result from the collaborative process and the multi-objective planning approach advocated by the Master Plan would be reduced. Therefore, the No Project alternative is not considered environmentally superior to the Proposed Project.</p>
<p><b>Maximum Habitat Alternative -</b> Under this alternative, each future Master Plan project would maximize the opportunities for habitat preservation and enhancement available at each site. The recreation component of each project would consist mostly of passive forms of recreation that are compatible with the habitat component of the project (e.g., bird watching, wildlife appreciation, etc.).</p>	<p>This alternative does not avoid any significant unmitigable impacts identified for the Proposed Project but would have greater beneficial impacts on biological resources than the proposed Master Plan by encouraging a greater number of projects to maximize habitat enhancement and preservation of open space. The Maximum Habitat Alternative would mostly avoid potentially adverse impacts associated with the Recreation, Flood Protection, Water Quality, and Economic Development Elements. For example, this alternative would largely avoid the traffic, noise, and air pollutant emissions related to an increase in recreational visitor trips associated with active recreation. For this reason, and since this alternative would maximize habitat restoration efforts within the river corridor resulting in greater beneficial impacts on biological resources, it can be considered the environmentally superior alternative. However, this alternative would not encourage projects that provide active recreation to the communities along the river.</p> <p>Since it would fail to meet the goal of balancing habitat, recreation, and open space, as intended by the Board of Supervisors’ resolution and as defined by the project objectives, it is rejected and not proposed for adoption by the Board and the other municipalities in the river corridor.</p>

**Table 1-1 (Continued)**  
**Summary of CEQA Alternatives**

Alternative	Impact Discussion
<p><b>Maximum Recreation Alternative -</b> Under this alternative, each future Master Plan project would maximize the opportunities for providing recreational facilities, particularly those for active forms of recreation. The habitat component of each project would consist of landscaping, tree planting, and other forms of enhancements that are compatible with human activities.</p>	<p>This alternative does not avoid any significant impacts identified for the Proposed Project but would have greater beneficial impacts on recreation than the proposed Master Plan by encouraging a greater number of projects to maximize recreational opportunities. The Maximum Recreation Alternative would mostly avoid potentially adverse impacts associated with the Habitat, Open Space, Flood Protection, Water Quality, and Economic Development Elements. For example, this alternative would avoid impacts associated with development of stormwater retention facilities such as an increase in mosquito breeding habitat or potential liquefaction concerns. However, this alternative would have increased operational impacts on traffic, air quality, and noise associated with recreational visitors as compared to the Proposed Project. This alternative would not encourage projects that provide habitat restoration and preservation of open space reducing beneficial impacts on biological resources.</p> <p>Since it would fail to meet the goal of balancing habitat, recreation, and open space, as intended by the Board of Supervisors’ resolution and as defined by the project objectives, this alternative is not identified as the environmentally superior alternative and it is rejected and not proposed for adoption by the Board and the other municipalities in the river corridor.</p>
<p><b>Maximum Master Plan –</b> Under this alternative, the goal of the Master Plan would be to restore the river to more a natural state reminiscent of its condition prior to urban development (e.g., removal of dams, lined channels and other engineered features that provide flood control and water supply benefits).</p>	<p>Removal of concrete to re-naturalize the river would result in:</p> <ul style="list-style-type: none"> <li>• Significant flooding impacts from decreased flood control capacity currently designed into the system, or</li> <li>• Significant land use changes from expansion of the floodplain to accommodate flood flows, for example, the displacement of existing residential, commercial, and industrial land uses through building demolition and replacement with open space.</li> </ul> <p>This alternative does not avoid any significant impact identified for the proposed project but could maximize beneficial impacts on biological resources, recreation, and open space. However, this alternative would have significant impacts on water supply, flooding, land use, population, and housing. This alternative is not identified as the environmentally superior alternative and it is rejected and not proposed for adoption by the Board and the other municipalities in the river corridor.</p>
<p><b>Specific Alternatives for Individual Master Plan Projects –</b> For many of the future Master Plan projects, more than one project description will be considered. These alternatives may focus on balancing project objectives at specific sites.</p>	<p>Overall, definition of component-specific alternatives will focus on balancing the multiple uses of the sites to accommodate various interests and maximize beneficial effects.</p>

## 1.7 AREAS OF KNOWN CONTROVERSY

In the course of preparation of the Master Plan and the Program EIR, the following issues of concern have been identified:

- Potential impact on existing operation and maintenance of flood control facilities and capacities associated with actions involving modification of the river channel related to the integration of recreation and habitat elements.
- Potential impact on surface and ground water rights associated with actions involving groundwater recharge or surface diversions.
- Potential impact on public health from increase in mosquito- and other vector-breeding conditions associated with creation of constructed wetlands, surface or underground stormwater capture/treatment devices, other surface water features, and corridor enhancement projects in close vicinity to urban development..

Mitigation measures have been identified to reduce impacts related to these topics to less than significant levels.

## 1.8 SUMMARY OF IMPACTS AND MITIGATION MEASURES

As summarized below in **Table 1-2**, many of the impacts on the environment related to implementation of the Master Plan are beneficial or less than significant. For topics with potentially significant impacts, mitigation measures have been identified to reduce impacts to below a level of significance; mitigation has also been identified to further reduce less than significant effects. Impacts and mitigation measures identified for the Concept Design Studies based on the design concepts described in the Master Plan are summarized separately in **Table 1-3**.

**Table 1-2  
Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<b>Air Quality</b>			
<ul style="list-style-type: none"> <li>Air pollutant emissions during construction</li> </ul>	PS	<p><b>MP-A1</b> Evaluations of air quality impacts during project construction will be conducted as follows during site-specific environmental review of each future Master Plan project:</p> <ol style="list-style-type: none"> <li>Based on the site-specific project description, the following should be determined:                             <ul style="list-style-type: none"> <li>Acreage of site disturbance that would occur during excavation, grading, and/or filling</li> <li>List of necessary construction equipment (number, type, hours of operation per day, and number of days in operation for each phase of construction)</li> <li>Length of construction period</li> <li>Number of construction workers and vehicles</li> </ul> </li> <li>Based on the above information, and using the latest version of the SCAQMD CEQA Handbook, construction emissions will then be estimated and compared to the thresholds of significance (Section 4.1.2).</li> <li>If the estimated construction emissions exceed the SCAQMD threshold of significance for fugitive dust, then one or more of the following dust control measures will be implemented as applicable:                             <ul style="list-style-type: none"> <li>Clean dirt from construction vehicle tires and undercarriages when leaving the construction site and before entering local roadways.</li> <li>During earth-moving activities, water the construction area as necessary, but at least twice per day.</li> <li>Water temporary open storage piles once per hour or install temporary covers.</li> <li>Water unpaved roadways three times per day or apply non-toxic soil stabilizers. (Note: Use of soil stabilizers near wetlands, streams, or other water features may be limited by regulatory agencies such as the U.S. Army Corps of Engineers and the California Department of Fish and Game.)</li> </ul> </li> </ol>	LS

B: Beneficial impact      LS: Less than significant impact      PS: Potentially significant impact

**Table 1-2 (Continued)  
Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		<ul style="list-style-type: none"> <li>• Limit construction vehicle speed on the project site to 15 miles per hour (mph) or less.</li> <li>• Cover dirt in trucks during on-road hauling.</li> <li>• Cease earth-moving activities on days when wind gusts exceed 25 mph or apply water to soil not more than 15 minutes prior to moving such soil.</li> <li>• Sweep streets near the construction area at the end of the day if visible soil material is present.</li> <li>• For applicable construction areas, establish a vegetative groundcover as soon as feasible after active operations have ceased. Groundcover will be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting.</li> <li>• Per SCAQMD Rule 403(e), large construction operations (greater than 50 acres of disturbed area or daily earth-moving or throughput volume of 5,000 cubic yards three times during the most recent 365-day period) will implement applicable dust suppression measures specified in Table 2 of Rule 403 at all times. When the applicable performance standards cannot be met through use of Table 2 measures, the applicable contingency control measures specified in Table 3 of Rule 403 will be implemented.</li> </ul> <p>4. If the estimated construction emissions exceed the SCAQMD threshold of significance for CO, ROC, NOx, SOx, then one or more of the following measures will be implemented:</p> <ul style="list-style-type: none"> <li>• Prohibit all vehicles from idling in excess of 10 minutes, both on and off-site.</li> <li>• Maintain construction equipment in proper tune.</li> <li>• Encourage contractors to establish trip reduction plans. The goal of these plans will be to achieve a 1.5 average vehicle ridership (AVR) for construction employees.</li> </ul>	

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LS: Less than significant impact

PS: Potentially significant impact

**Table 1-2 (Continued)**  
**Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		<p>To further reduce tailpipe emissions from construction equipment, implementation of the following optional measure will be considered at the time of construction of individual projects. Aside from fugitive dust, the majority of construction emissions, particularly for NO<sub>x</sub>, are generally associated with tailpipe emissions from diesel-fueled construction equipment. Using construction equipment with alternative fuel(s) can achieve high reduction efficiency for tailpipe emissions. The approximate NO<sub>x</sub> emissions reduction rates of various alternative fuels are: 60 percent for compressed natural gas (CNG), 10 percent for emulsified diesel fuel, and 2 to 10 percent for biodiesel fuel (EPA, 2003c). However, use of construction equipment with alternative fuel(s), while effective, may not be applicable to all projects (i.e., limited equipment availability and high costs may make it infeasible to use a large fleet of construction equipment with alternative fuel(s)).</p> <ul style="list-style-type: none"> <li>Select construction equipment with low pollutant emissions and high energy efficiency. Factors to consider include model year and alternative fuels (e.g., compressed natural gas, biodiesel, emulsified diesel, methanol, propane, butane, and low sulfur diesel).</li> </ul>	
<ul style="list-style-type: none"> <li>Operational impacts on air quality due to increased vehicle trips for maintenance activities and visitors to recreational facilities</li> </ul>	LS	<p><b>MP-A2</b> Evaluations of air quality impacts during project operation will be conducted as follows during site-specific environmental review of each future Master Plan project:</p> <ol style="list-style-type: none"> <li>Based on the site-specific project description, the number of vehicle trips that would be generated by operation of proposed facilities (e.g., ongoing maintenance activities and/or visitors to recreational or educational facilities) will be estimated, and air emissions associated with those vehicle trips will be determined. If project operation involves use of electricity (e.g., lighting for parks, education center or park buildings, pumps, etc.), air emissions associated with electricity consumption will be estimated.</li> <li>Based on the above information, and using the latest version of the SCAQMD CEQA Handbook, operational emissions will be compared to the thresholds of significance (Section 4.12).</li> </ol>	LS

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**Table 1-2 (Continued)**  
**Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		<p>3. One or more of the following measures will be implemented as applicable to reduce air emissions:</p> <ul style="list-style-type: none"> <li>• Implement dust control if dry conditions and substantial area is disturbed for operations and maintenance activities that involve ground disturbance.</li> <li>• Select energy efficient lighting features or other building design considerations for proposed facilities (e.g., park buildings or interpretive centers) to minimize emissions associated with power generation.</li> <li>• Select low-emissions equipment and vehicles for operations and maintenance to reduce tailpipe emissions.</li> <li>• Implement an employee ride-share plan to reduce vehicle trips to the facility and associated tailpipe emissions.</li> </ul>	
<b>Biological Resources</b>			
<ul style="list-style-type: none"> <li>• Construction impacts on special status plant and wildlife species and special status habitat types</li> </ul>	PS	<p><b>MP-B1</b> Site-specific evaluations for biological resources will be conducted prior to completion of detailed design plans for each of the future projects to determine the presence of high-value vegetation types and the potential for special status plant and wildlife species to occur. The following tasks will be completed by these evaluations:</p> <ol style="list-style-type: none"> <li>1. Identify and determine the extent of site disturbance proposed by the project. For sites where biological resources have any potential to be sensitive, continue evaluation as outlined below.</li> <li>2. General plant and wildlife surveys will be performed by a qualified biologist to determine if any focused surveys for special status species are necessary. If the general surveys indicate that there is potential for sensitive plant or wildlife species to occur on the project site, focused surveys will be conducted for those species in accordance with relevant protocols at the appropriate time of the year.</li> <li>3. If any special status species or high-value vegetation types are identified, the proposed</li> </ol>	LS

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**Table 1-2 (Continued)  
Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		<p>facilities will be designed and/or sited to avoid disturbance and loss of the sensitive resources. If nesting habitat of special status bird species will be impacted, project construction will be scheduled outside of the breeding season if feasible. If scheduling construction outside of the breeding season is not feasible, then a pre-construction survey will be conducted to identify nests and to establish a buffer zone between the construction area and the nests to avoid construction impacts.</p> <p>4. In some instances, depending on the location of sensitive resources and/or construction schedule requirements, project redesign and/or construction phasing that avoids biological resources while still meeting the project objective may be infeasible. Therefore, if avoidance is not feasible, the following measures will be detailed and disclosed in second tier CEQA documentation and implemented under the direction of a qualified biologist:</p> <ul style="list-style-type: none"> <li>• Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment; and/or</li> <li>• Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the project; and/or</li> <li>• Compensating for the impact by replacing or providing substitute resources or environments.</li> </ul> <p>5. If avoidance of impacts to listed species is not feasible, then consultation with the USFWS shall be required for federally-listed species, and consultation with the CDFG shall be required for state-listed species. If special status plants are identified, a mitigation program shall be developed following focused surveys and submitted to the appropriate agencies for review.</p>	
<ul style="list-style-type: none"> <li>• Impacts related to invasive plant species</li> </ul>	LS - B	<b>MP-B2</b> Landscaping of vegetation will not include any invasive plant species as listed on the California Invasive Plant Council Pest Plant List.	B

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**Table 1-2 (Continued)**  
**Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<ul style="list-style-type: none"> <li>Lighting impacts on nocturnal and crepuscular (active at dawn and dusk) wildlife</li> </ul>	LS	<b>MP-B3</b> For projects that involve use of night lighting in public areas (e.g., parks) for health and/or safety reasons, lighting will be designed to minimize effects on the behavior patterns of nocturnal and crepuscular (active at dawn and dusk) wildlife (e.g., small ground-dwelling animals that use the darkness to hide from predators, and on owls that are specialized night foragers). To reduce light impacts on nocturnal and crepuscular wildlife, night lighting will be low intensity directional lighting focused away from open space areas.	LS
<ul style="list-style-type: none"> <li>Disturbance of wildlife behavior and habitat associated with human activity (e.g., recreational visitors)</li> </ul>	PS	<b>MP-B4</b> For projects that involve recreational uses near habitat areas, a management plan to reduce impacts from human uses (e.g., riding, hiking, biking) on native habitats will be incorporated into detailed design plans. As relevant, the management plan will include access points including parking and restrooms, signage for trails and restricted uses, appropriate fencing, and restrictions on domestic animals. This plan will be written by a qualified biologist and approved by the sponsoring agency prior to initiation of site development	LS
<b>Cultural Resources</b>			
<ul style="list-style-type: none"> <li>Construction impacts (site disturbance or modifications to existing structures) on cultural resources</li> </ul>	PS	<b>MP-C1</b> Site-specific evaluations for cultural resources will be conducted as follows prior to completion of detailed design plans for each future Master Plan project: <ol style="list-style-type: none"> <li>Identify and determine the extent of site disturbance and/or structural modifications proposed by the project. For sites where ground will be newly disturbed (i.e., not fill soils or previously completely disturbed sites) and/or for sites with potentially historic structures present, continue evaluation as outlined below.</li> <li>Conduct background research to identify previous cultural resources investigations and known cultural resources relevant to the project site (review records at the South Central Coastal Information Center, contact local historical societies, the Native American Heritage Commission, etc.).</li> <li>Conduct field reconnaissance if the project site has not been surveyed for cultural resources in the last five years.</li> <li>If potential resources are identified in the field reconnaissance, determine if avoidance is</li> </ol>	LS

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**Table 1-2 (Continued)**  
**Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		<p>feasible (e.g., design project to locate the proposed structures or site disturbance away from or around the area of the potential resource; a buffer of 100 meters is recommended in most cases). If feasible, the resource shall be avoided.</p> <p>5. If avoidance is not feasible, evaluate the significance of the potential resource. The evaluation process may include excavation, additional review of records and literatures, interviews, field examination by a an architectural historian, and/or laboratory analysis. Based on the results of the evaluation, the significance of the potential resource should be determined using the criteria listed in Section 4.3.1.3.</p> <p>6. If the resource is found to be significant, determine significance of project impacts on the resource. (Significant change to a resource includes demolition, replacement, substantial alteration, or relocation (California Code of Regulations [CCR] Section 15064.5)).</p> <p>7. If project impacts are determined to be significant, the following measures (in order of preference) will be implemented to reduce impacts to below a level of significance:</p> <ul style="list-style-type: none"> <li>• Incorporating the resource into the project design (e.g., for projects involving park development or interpretive centers); or</li> <li>• Remove and relocate the resource to an appropriate location (e.g., museum, public library, or school)</li> </ul>	
<ul style="list-style-type: none"> <li>• Construction impacts on buried cultural resources and/or human remains</li> </ul>	PS	<p><b>MP-C2</b> If previously unknown cultural resources are discovered in the course of excavation for project construction, the construction inspector shall have the authority and responsibility to halt construction until a qualified archaeologist can evaluate the significance and distribution of the materials, and identify future activities needed. If the cultural material discovered is determined to be of potential archaeological significance, the investigation and future activities shall be conducted in consultation with a culturally affiliated Native American or other parties, as necessary.</p>	LS
		<p><b>MP-C3</b> If human remains are discovered in the course of excavation for project construction, the County Coroner shall be contacted and provisions of State CEQA Guidelines Section 15064.5 shall be followed.</p>	

B: Beneficial impact      LS: Less than significant impact      PS: Potentially significant impact

**Table 1-2 (Continued)  
Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<b>Geology and Soils</b>			
<ul style="list-style-type: none"> <li>Impacts related to slope instability (for projects that involve gravel mine reclamation)</li> </ul>	PS	<p><b>MP-G2</b> Site-specific evaluation of slope stability will be conducted as a part of the geotechnical analyses during design of each future Master Plan project that involves modification of a gravel mine. The recommendations of the geotechnical study will include optimum slope design for stability and safety, soil compaction or recompaction requirements, surface cover, and potentially other slope stabilizing measures. The recommendations of the geotechnical analysis will be incorporated into the detailed design of the project. The results of site-specific evaluations and detailed mitigation measures, if any, will be disclosed in subsequent CEQA documentation.</p>	LS
<ul style="list-style-type: none"> <li>Impacts related to seismic ground shaking and surface rupture</li> </ul>	LS	None	LS
<ul style="list-style-type: none"> <li>Impacts related to liquefaction potential from proposed stormwater infiltration</li> </ul>	PS	<p><b>MP-G1</b> During facility design, a site-specific geotechnical analysis will be conducted to determine soil types and groundwater levels. Based on the results of the geotechnical analysis, the potential increase in liquefaction potential from the proposed infiltration will be evaluated. Factors that will be considered include the capacity of the infiltration facility and the associated amount of water proposed for infiltration, infiltration rate, proximity and types of nearby structures (including pipelines) that could be damaged from liquefaction, and infiltration at adjacent spreading grounds, if any.</p> <p>If the project is determined to have the potential to cause groundwater levels to rise within 30 feet of the surface, new monitoring wells and/or existing wells in the project area will be used to detect any substantial increase in groundwater levels. If monitoring indicates a substantial rise in groundwater levels that could impact adjacent structures, stormwater would not be infiltrated and would be diverted into storm drains or onto street surfaces or routed to other stormwater management facilities as applicable. Re-diversion of storm flows will be in compliance with the applicable provisions of the relevant NPDES municipal stormwater permits.</p>	LS
<ul style="list-style-type: none"> <li>Impacts on power line towers related to expansive soils from proposed stormwater infiltration</li> </ul>	PS	See <b>MP-P4</b> under <b>Public Services and Utilities</b>	LS

B: Beneficial impact      LS: Less than significant impact      PS: Potentially significant impact

**Table 1-2 (Continued)  
Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<ul style="list-style-type: none"> <li>Impacts on habitable structures related to geologic hazards</li> </ul>	LS	<p><b>MP-G3</b> The site plan and building footprint will be reviewed by a registered professional to ensure that project siting and design provides adequate protection from geologic hazards such as fault rupture (including Alquist-Priolo Earthquake Fault Zones), expansive soils, liquefaction, and unstable slopes. If a project site is located in known high risk areas with respect to geological hazards, a site-specific geotechnical study will be performed during facility design to identify potential concerns and recommended measures to reduce hazards. Recommendations in the geotechnical study will be incorporated into the final design.</p>	LS
<ul style="list-style-type: none"> <li>Construction impacts on soil erosion</li> </ul>	PS	See <b>MP-W2</b> under <b>Hydrology and Water Quality</b>	LS
<b>Hazards and Hazardous Materials</b>			
<ul style="list-style-type: none"> <li>Impacts related to potential soil contamination at project sites</li> </ul>	PS	See <b>MP-W8</b> under <b>Hydrology and Water Quality</b>	LS
<ul style="list-style-type: none"> <li>Impacts related to handling of hazardous materials (disposal of potentially contaminated sediments during maintenance of stormwater facilities)</li> </ul>	LS	None	LS
<ul style="list-style-type: none"> <li>Public health impacts related to potential increase in mosquito habitat</li> </ul>	PS	<p><b>MP-H1</b> Project plans and designs will be submitted to the applicable vector control district (see Section 4.5.1.4) for review and comment with respect to control of mosquitoes and other vectors. Upon consultation with the vector control district, appropriate vector management measures will be incorporated into the project design. Potential management measures include the following:</p> <ul style="list-style-type: none"> <li>Design to minimize and/or provide periodic removal of vegetation on bank slopes and periphery of water bodies to minimize areas of stagnant water.</li> <li>Design and/or manage to optimize water depths and flow pattern. For mosquito control, maintain water depths and encourage/provide water circulation. For black fly control, minimize aeration of flowing water. If necessary, design water features to allow for periodical drying to desiccate vector larvae.</li> <li>Work with the vector control district to stock ponds and other permanent water features with</li> </ul>	LS

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**Table 1-2 (Continued)  
Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		<p>mosquito-eating fish as needed.</p> <ul style="list-style-type: none"> <li>• Provide site access to vector control district specifications (e.g., dikes with access roads or trails) to potential breeding areas for maintenance (e.g., vegetation removal) and treatment (e.g., application of Bti or other larvicides).</li> <li>• Design stormwater retention facilities/devices to drain completely within 72 hours, or design with the capability to be dewatered rapidly if needed for vector control.</li> <li>• Incorporate measures into project designs that serve to educate the public about wildlife safety and vector-borne disease issues, prevent wildlife-human interactions, and prevent wildlife access to trash and unnatural food and water sources that are likely to result in unnatural population levels.</li> <li>• Design underground utility vaults, if needed for project implementation, to prevent retention of standing water thereby reducing vector breeding habitat.</li> <li>• Regularly consult with the vector control district to identify mosquito management problems, mosquito monitoring and abatement procedures, and opportunities to adjust water and vegetation management practices to reduce mosquito production.</li> <li>• Incorporate funding for vector management activities into project funding or implement a secure and reliable funding source for vector management activities.</li> </ul>	
<ul style="list-style-type: none"> <li>• Impacts related to potential increase in bird/wildlife air strike hazard at nearby airports</li> </ul>	LS	<p><b>MP-H2</b> For projects located within 5 miles of El Monte Airport or Long Beach Airport, the potential for the proposed facilities to attract waterfowl and other birds will be evaluated. If the evaluation indicates that the project would attract birds, the FAA Western Pacific Regional Office, Long Beach Airport, El Monte Airport and Los Alamitos Joint Forces Training Base will be notified of the proposed land use change to recognize potentially significant hazards early in the planning process and avoid or minimize the hazards.</p>	LS

B: Beneficial impact      LS: Less than significant impact      PS: Potentially significant impact

**Table 1-2 (Continued)  
Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<b>Hydrology and Water Quality</b>			
<ul style="list-style-type: none"> <li>Beneficial reduction in local and downstream flooding</li> </ul>	B	None	B
<ul style="list-style-type: none"> <li>Increase in impervious surfaces or change in drainage patterns</li> </ul>	LS	None	LS
<ul style="list-style-type: none"> <li>Impacts on channel flood capacity</li> </ul>	PS	<p><b>MP-W1</b> Future projects that propose modifications to an existing flood control channel will include detailed engineering studies, including hydrologic and hydraulic modeling as applicable, to assess potential impacts on the channel’s flood control capacities and effects on upstream and downstream floodplain properties and recommendations to avoid or minimize these impacts. Recommendations of the engineering studies will be incorporated into project design. Modifications to Federal Emergency Management Agency (FEMA) floodplain maps will be made as needed.</p>	LS
<ul style="list-style-type: none"> <li>Construction impacts on surface water quality related to soil erosion</li> </ul>	PS	<p><b>MP-W2</b> For future projects involving constructing, clearing, grading or excavation on areas over 1 acre in size, develop and implement a Storm Water Pollution Prevention Plan (SWPPP) to minimize the amount of runoff and associated pollutants (e.g., sediments) leaving the construction site by containing the runoff onsite, containing the sediments onsite, and/or minimizing the potential for stormwater to come in contact with pollutants. The following are possible measures to be incorporated into site-specific SWPPPs as applicable. Additional sample measures and guidelines for developing SWPPPs are available in California Stormwater Quality Association’s Stormwater Best Management Practice Handbook – Construction (CASQA, 2003). Measures to reduce fugitive dust generated during construction (see Section 4.1.5 – Air Quality) will also minimize the potential for soil erosion.</p> <ul style="list-style-type: none"> <li>Install perimeter silt fences or hay bales.</li> <li>Stabilize soils through hydroseeding with native plant species where possible and use of soil stabilizers.</li> <li>Install temporary sedimentation basins.</li> </ul>	LS

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**Table 1-2 (Continued)  
Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		<ul style="list-style-type: none"> <li>• Conduct earth moving activities during the dry season (April through October), as feasible.</li> <li>• Designate storage areas for construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants, paints, solvents, adhesives) to keep these materials out of the rain and minimize contact with stormwater.</li> <li>• Conduct regular inspections to ensure compliance with the SWPPP.</li> </ul>	
<ul style="list-style-type: none"> <li>• Construction impacts on water quality during channel modifications</li> </ul>	PS	<p><b>MP-W3</b> For future projects involving channel modifications, COE, Regional Board, U.S. Fish and Wildlife Service, and California Department of Fish and Game will be consulted. All necessary federal and state approvals (including CWA Section 404 permits, CWA Section 401 water quality certifications or waivers, and California Fish and Game Code Section 1602 Streambed Alteration Agreements) will be obtained prior to the implementation of construction activities. Any conditions of agency approvals (e.g., measures to minimize the potential water quality impacts associated with the channel modification) will be incorporated into the project design. Water quality mitigation options for use during construction of in-channel improvements include diversion of flows around the construction site, installation of in-stream silt curtains, or use of off-channel sediment retention ponds or tanks.</p>	LS
<ul style="list-style-type: none"> <li>• Reduction in discharges of stormwater pollutants</li> </ul>	B	None	B
<ul style="list-style-type: none"> <li>• Water quality impacts of pesticide/herbicide use in landscaped areas or for exotic species removal</li> </ul>	PS	<p><b>MP-W4</b> For future projects involving landscaping, habitat restoration, and/or removal of exotic plant species, select biological or non-chemical means of controlling exotics and pests unless not feasible because biological or non-chemical controls are not readily available for the specific exotics to be controlled. If chemical pesticide or herbicide use is necessary, compounds that are less persistent in the environment will be selected, and application will be conducted in accordance with manufacturers’ recommendations and general standards of use, e.g., restricted application before and during rain storms.</p>	LS

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**Table 1-2 (Continued)  
Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<ul style="list-style-type: none"> <li>Operational impacts on water quality related to channel modifications</li> </ul>	PS	<p><b>MP-W5</b> For future projects involving channel modifications, detailed engineering studies (including sediment transport as applicable) will be conducted to assess the impact of the proposed changes on the channel’s stability and erodability and will include recommendations to avoid or minimize the impact. Recommendations of the engineering studies will be incorporated into project design to minimize impacts on surface water quality associated with potential increase in erosion of channel banks from proposed modifications.</p>	LS
<ul style="list-style-type: none"> <li>Operational impacts on groundwater quality from stormwater infiltration</li> </ul>	PS	<p><b>MP-W6</b> For projects that involve stormwater infiltration, a comprehensive stormwater and groundwater quality monitoring program will be designed and implemented, or the results of existing monitoring programs will be considered. Monitoring results will be used to assess the ongoing effectiveness of the proposed stormwater treatment methods in protecting both surface and groundwater. If monitoring results indicate substantial water quality degradation associated with project infiltration, the following strategy will be followed:</p> <ul style="list-style-type: none"> <li>Provide additional treatment prior to infiltration, or</li> <li>Redesign project to reduce or eliminate infiltration (e.g., lining), or</li> <li>Identify an alternative water source (e.g., reclaimed water).</li> </ul>	LS
<ul style="list-style-type: none"> <li>Groundwater hydrology impacts (Potential inundation of landfill material from stormwater infiltration and potential interference with ongoing cleanup of existing Superfund contamination plume in the San Gabriel Valley)</li> </ul>	PS	<p><b>MP-W7</b> For projects involving groundwater recharge, the project site’s proximity to existing groundwater contamination plumes and landfills (or other known hazardous materials sites that could become a contamination source if inundated with groundwater) will be evaluated. If a project site is located within or adjacent to a plume or in the vicinity of a contamination source, the effect of the proposed recharge on groundwater hydrology (changes in flow direction and levels) will be evaluated. As applicable, groundwater modeling would be conducted to determine whether the rate and amount of recharge proposed by the project could result in substantial changes to the location or shape of existing contamination plumes, or in the inundation of landfills or other contamination sources. As part of the investigation, relevant agencies, including the Regional Board, Watermasters, and agencies involved in groundwater clean-up activities (e.g., EPA and WQA), will be consulted. As applicable, Mitigation Measure CD-W4 will be implemented to prevent interaction of infiltrated water with landfill materials or other contaminant sources.</p>	LS

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**Table 1-2 (Continued)  
Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<ul style="list-style-type: none"> <li>Groundwater quality impacts related to potential soil contamination at infiltration sites</li> </ul>	PS	<p><b>MP-W8</b> For projects involving substantial ground disturbance where prior land use is unknown and the potential for soil contamination or other constraints (e.g., oil or gas wells) from previous land uses exists, a Phase I Environmental Site Assessment (ESA) will be conducted to determine the site-specific potential for soil contamination or other constraints. The Phase I ESA will be conducted in accordance with the latest version of the American Society of Testing and Materials (ASTM) 1527 “Standard Practice for Environmental Site Assessments: Phase I Environmental Assessment Process.” This document outlines the customary practice for performing ESA’s in the United States. Phase I ESA will consist of a review of site-specific documents and historical maps to determine past uses of the site, a site visit to visually inspect the property for signs of potential environmental contamination, and investigation of state and federal environmental regulatory databases to identify recognized hazardous materials usage or spills, and include review of California Department of Conservation Division of Oil, Gas, &amp; Geothermal Resources records of oil, gas, and geothermal wells. For project sites with infiltration, the boundary of the Phase I ESA will include parcels located within 500 feet of the project site boundary to identify active or abandoned landfills or other land uses with the potential for contaminated soils which would be incompatible with infiltration (to be cross-referenced with Mitigation Measure CD-W4). If the Phase I ESA concludes that there is no substantial potential for soil contamination or other constraints, no further action would be required. If the Phase I ESA indicates that there is potential for soil to be contaminated, additional investigation (Phase II ESA, including soil sampling and analysis) will be conducted to determine the presence and extent of the contamination. If the proposed project would involve disturbance of soil in the contaminated area, soil would be removed and disposed of in compliance with applicable regulations at approved disposal sites. If the proposed project site includes or is in the immediate vicinity of oil or gas wells or if any unrecorded wells are damaged or uncovered during excavation or grading, the project proponent shall submit the information outlined in the “Construction Project Site Review and Well Abandonment Procedure” to the California Department of Conservation Division of Oil, Gas &amp; Geothermal Resources. In order of preference, wells should be avoided, plugged or re-plugged to current Division specifications, or an adequate gas venting system should be installed if construction over an abandoned well is unavoidable.</p>	LS

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**Table 1-2 (Continued)  
Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<b>Land Use</b>			
<ul style="list-style-type: none"> <li>Land use impacts (physical division of an established community; conflicts with applicable land use plans, policies or regulations)</li> </ul>	B	None	B
<ul style="list-style-type: none"> <li>Impacts on availability of mineral resources</li> </ul>	PS	<p><b>MP-L1</b> For future projects that propose development of facilities that would result in restriction of future mineral extraction operations (e.g., reclamation of an existing gravel mine before gravel extraction activities have been completed), site-specific evaluations described below will be conducted and the results will be disclosed in subsequent CEQA documentation:</p> <ol style="list-style-type: none"> <li>Determine the site-specific availability of mineral resources by reviewing relevant publications from the California Geological Survey (e.g., SMARA Mineral Land Classification, available at: <a href="http://www.consrv.ca.gov/cgs/minerals/mlc/index.htm">http://www.consrv.ca.gov/cgs/minerals/mlc/index.htm</a>) and/or mine reclamation plans (if the proposed project site is an existing mine).</li> <li>Contact the relevant SMARA lead agency (see Section 4.7.1.1) to determine whether the proposed land use change could restrict or preclude the extraction of mineral resources designated as regionally significant (MRZ-2) or locally important (as designated in a local land use plan).</li> </ol>	LS
<b>Noise</b>			
<ul style="list-style-type: none"> <li>Construction noise impact on sensitive receptors</li> </ul>	PS	<p><b>MP-N1</b> Evaluations of construction noise generation will be conducted as follows during site-specific environmental review of each future Master Plan project:</p> <ol style="list-style-type: none"> <li>Identify noise-sensitive land uses located in the vicinity of the project site (e.g., residences, hospitals, schools, guest lodging, libraries, convalescent and retirement facilities, houses of worship, auditoriums and concert halls, outdoor theaters, nature and wildlife preserves, parks, and cemeteries).</li> <li>Determine the existing noise environment of the project area (e.g., rural vs. high density urban). Identify nearby existing noise sources that affect the project site (e.g., heavy industrial</li> </ol>	LS

B: Beneficial impact      LS: Less than significant impact      PS: Potentially significant impact

**Table 1-2 (Continued)**  
**Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		<p>operations or major highways).</p> <ol style="list-style-type: none"> <li>3. Review the relevant jurisdiction’s noise regulations and policies (e.g., noise ordinances and general plan noise element) to identify construction noise standards and noise/land use compatibility guidelines.</li> <li>4. Estimate the construction equipment needed and resultant noise generation (see Section 4.8.5.1). Compare the estimated construction noise levels that would be experienced by the nearest sensitive receptor to the relevant jurisdiction’s construction noise standards. The impact evaluation will also take into consideration construction duration, whether the noise generated would be intermittent or continuous, and the existing noise environment of the project area.</li> <li>5. If the estimated noise levels exceed the standards, one or more of the following applicable site-specific measures will be implemented to reduce noise levels to meet the relevant jurisdiction’s noise standards:               <ul style="list-style-type: none"> <li>• Equip all mobile construction equipment with properly operating mufflers or other noise reduction devices</li> <li>• Install sound walls, sound curtains, or other temporary sound barriers</li> <li>• Select quieter construction procedures and/or equipment</li> </ul> </li> <li>6. For projects at school sites: schedule the noisier phases of construction on Saturdays, school vacation periods, and/or after regular class hours but before 9 p.m., as feasible; and maintain ongoing communications with the schools’ administrators to address any construction noise-related issues.</li> </ol>	
<ul style="list-style-type: none"> <li>• Operational noise impacts of new or expanded facilities for active recreation</li> </ul>	PS	<p><b>MP-N2</b> Projects that involve new or expanded facilities for active recreation (e.g., athletic fields) will be designed to minimize impacts on nearby noise-sensitive land uses, if any, by siting facilities away from noise-sensitive land uses, limiting hours of operation, installation of sound barriers, and/or using other appropriate measures as necessary.</p>	LS

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**Table 1-2 (Continued)  
Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<b>Public Services and Utilities</b>			
<ul style="list-style-type: none"> <li>Construction impact on police and fire protection services from temporary lane and/or road closures during construction of storm drains, etc.</li> </ul>	PS	<p><b>MP-P1</b> For future projects with substantial construction periods, the following measures will be implemented as applicable to minimize construction impacts on emergency response requirements of relevant police and fire departments. (See also Section 4.11.6 regarding mitigation measures related to construction impacts on traffic and roadways).</p> <ul style="list-style-type: none"> <li>Prior to the start of construction, consult the fire station(s) serving the project area and review phasing, road/lane closure, and detour plans. The fire station(s) may then identify alternative fire and emergency medical response routes.</li> <li>Prior to the start of construction, consult the police station(s) serving the project area, as appropriate, of project-related lane and/or road closures and detour plans. The police station(s) may then identify alternative police emergency response routes.</li> <li>If determined to be necessary by the relevant police and/or fire service providers, implement one or more of the following applicable traffic control measures capable of reducing the temporary adverse effects to police and emergency vehicle travel during project construction:                             <ul style="list-style-type: none"> <li>– Use flagmen to direct traffic</li> <li>– Post “No Parking” signs along the affected area</li> <li>– Install temporary signals or signs to direct traffic</li> <li>– Other equivalent traffic control measures</li> </ul> </li> </ul>	LS
<ul style="list-style-type: none"> <li>Operational impact on police and fire protection services</li> </ul>	LS	None	LS
<ul style="list-style-type: none"> <li>Construction impact on school access and student safety</li> <li>Construction impacts on school commuting routes from temporary lane and/or road closures during construction</li> </ul>	PS	<p><b>MP-P2</b> For future projects located adjacent to a school, evaluate the impact on school access (vehicles and pedestrians) and student safety from operation and/or parking of construction vehicles and equipment near the school property. The school district or the school administrator will be contacted to identify any policies that the school or the school district has established regarding construction on or near school properties (e.g., noise and traffic control standards) and to</p>	LS

B: Beneficial impact      LS: Less than significant impact      PS: Potentially significant impact

**Table 1-2 (Continued)  
Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
of storm drains, etc.		<p>provide sufficient notice to forewarn school bus operators, children, and parents if existing pedestrian and vehicular routes to school would be affected. As necessary to protect the safety of children, parents and employees accessing the school, one or more of the following measures will be implemented in coordination with the school administrators:</p> <ul style="list-style-type: none"> <li>• Develop temporary alternative pedestrian and vehicular routes to the school that avoid construction areas</li> <li>• Install appropriate temporary traffic controls (signs, crossing guards, and/or signals) as needed to ensure pedestrian and vehicular safety</li> <li>• Minimize use of haul routes past the school when school is in session</li> <li>• Prohibit parking or staging of construction or worker vehicles on streets adjacent to the school.</li> </ul>	
<ul style="list-style-type: none"> <li>• Potential interference with existing utilities within street rights-of-way from construction of storm drains, etc.</li> </ul>	PS	<p><b>MP-P3</b> For future projects that include construction of pipelines or other underground structures, identify the roadways or other rights-of-way that would be affected during construction. During facility design, contact the relevant utilities (e.g., water, sewage, electricity, natural gas, telephone, cable, and oil) to identify existing and proposed buried facilities in affected roadways. To the extent feasible, the alignment of new facilities will be designed to avoid the existing utilities. If avoidance is not feasible, one or more of the following measures will be implemented as applicable:</p> <ul style="list-style-type: none"> <li>• If relocation is required, sequence construction activities to avoid or minimize interruptions in service.</li> <li>• If utility service disruption is necessary, notify residents and businesses in the project area a minimum of 2 to 4 days prior to service disruption through local newspapers, direct mailings to affected parties, or public posting of notices.</li> <li>• If project construction would occur near existing utilities, require the contractor to excavate around utilities, including hand excavation as necessary, to avoid damage and to minimize interference with safe operation and use. Hand tools must be used to expose the exact location of buried gas or electric utilities.</li> </ul>	LS

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**Table 1-2 (Continued)**  
**Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<ul style="list-style-type: none"> <li>Operational impacts related to sewer and wastewater treatment systems, water supply systems, electricity consumption, and solid waste</li> </ul>	LS	None	LS
<ul style="list-style-type: none"> <li>Operational impact on power line towers from stormwater infiltration</li> </ul>	PS	<p><b>MP-P4</b> For future projects that include stormwater infiltration in the vicinity of power line towers, a geotechnical investigation will be conducted during facility design to assess the characteristics and stability of the soil around the power line towers. If results of the investigation indicate that stormwater infiltration may saturate the soil and affect the stability of the towers, one or more of the following changes will be incorporated into the site design as applicable:</p> <ul style="list-style-type: none"> <li>Site the proposed retention basins to avoid the towers, if possible, or construct a series of drywells so that water would be infiltrated deeper into the ground to avoid saturation of surface soils.</li> <li>Install a liner along the sideslope of the basin closest to the power line towers to prevent infiltration. (The liner would cover only a small portion of the infiltration basin.)</li> </ul>	LS
<ul style="list-style-type: none"> <li>Impact on landfill capacity from generation of solid waste during construction</li> </ul>	LS	<p><b>MP-P5</b> State in the plans and specifications for the proposed project that the construction contractor is required to identify and implement programs for minimizing solid waste generated during construction. These programs could include recycling of asphalt and concrete paving materials, reuse and composting of green waste materials on site where appropriate (e.g., where there is limited potential for inadvertent spreading of invasive plants), and balance of graded soil on site to the maximum extent feasible.</p>	LS
<ul style="list-style-type: none"> <li>Impact on solid waste collection routes from temporary lane and/or road closures during construction of storm drains, etc.</li> </ul>	LS	<p><b>MP-P6</b> Prior to construction, notify the relevant municipality of the construction schedule and planned lane or road closures. The municipality or agency may then modify the solid waste collection routes and access in the area.</p>	LS
<b>Recreation</b>			
<ul style="list-style-type: none"> <li>Construction impact on existing recreational facilities</li> </ul>	PS	<p><b>MP-R1</b> For projects that include modifications of existing recreational facilities, the timing, duration and areal extent of disturbance that would occur during construction of the proposed</p>	LS

B: Beneficial impact

LS: Less than significant impact

PS: Potentially significant impact

**Table 1-2 (Continued)  
Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		<p>facilities will be identified during facility design. If temporary closures of existing recreational facilities would be necessary, the potential increase in use of other nearby recreational facilities will be evaluated. Factors to be considered in the evaluation include the duration of the closure, acreage and type of facility that would be unavailable due to the closure, and existing usage levels at the relevant recreational facilities.</p> <p>If the impacts on nearby recreational facilities are determined to be potentially significant, one or more of the following measures will be implemented:</p> <ul style="list-style-type: none"> <li>• Minimize construction period</li> <li>• Modify construction phasing to limit disturbance of existing recreational facilities</li> <li>• Avoid construction during peak use periods</li> </ul>	
<ul style="list-style-type: none"> <li>• Increased acreage and quality of recreational facilities</li> </ul>	B	None	B
<b>Traffic and Transportation</b>			
<ul style="list-style-type: none"> <li>• Temporary impact on traffic in the project area from construction vehicles and equipment</li> <li>• Temporary impact on traffic in the project area from construction activities in the street rights-of-way (e.g., storm drains)</li> <li>• Operational impacts on traffic from increased visitors to proposed recreational facilities</li> </ul>	LS - PS	<p><b>MP-T1</b> A traffic impact study will be prepared for any Master Plan project that is projected to meet or exceed the site-generated traffic volume thresholds cited in the Los Angeles County Congestion Management Program “Guidelines for CMP Transportation Impact Analysis.” The guidelines indicate that a study is required if a project would add 50 or more vehicle trips during either the a.m. or p.m. weekday peak hours to a CMP arterial monitoring intersection or freeway on- or off-ramp. An analysis will be conducted if the project would add 150 or more trips in either direction to a mainline freeway during either the a.m. or p.m. weekday peak hours. A traffic study will also be prepared if the project meets the criteria for the municipality in which the project site is located (i.e., an incorporated city, County of Los Angeles, or County of Orange). If the project would result in significant traffic impacts, one or more of the following measures will be implemented as applicable.</p> <ul style="list-style-type: none"> <li>• A construction traffic management plan shall be developed for each project site that will include but not be limited to such measures as designated haul routes for construction-related</li> </ul>	LS

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**Table 1-2 (Continued)  
Summary of Master Plan Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		<p>traffic (e.g., construction equipment, pickup and dump trucks, and other material delivery trucks), travel time restrictions for construction-related traffic to avoid weekday peak periods on selected roadways, designated site access locations, driveway turning restrictions, temporary traffic controls and/or flaggers, and designated parking/staging locations for workers and equipment.</p> <ul style="list-style-type: none"> <li>• A construction area traffic control plan and/or detour plan shall be prepared for any location where construction activities would encroach into the right-of-way of a public roadway. The plan would include, but not be limited to such features as warning signs, lights, barricades, cones, lane closures, and restricted hours during which lane closures would not be allowed (e.g., 6:00 to 9:00 a.m. and 3:00 to 6:00 p.m., or as directed by the affected public agency).</li> <li>• Provide advance notification to affected property owners, businesses, residents, etc. of possible driveway blockages or other access obstructions and implement alternate access and parking provisions where necessary.</li> <li>• Provide alternative pedestrian and bicycle access/circulation routes if existing facilities such as sidewalks, crosswalks, and bike lanes would be obstructed to ensure safe pedestrian/bicycle travel.</li> <li>• Coordinate with emergency service providers (police, fire, and ambulance/paramedic agencies) prior to construction to provide information regarding lane closures, construction schedules, driveway blockages, etc., if any, and develop a plan to maintain or accommodate essential emergency access routes (e.g., plating over excavations and use of detours).</li> <li>• Coordinate with public transit agencies (e.g., MTA) to provide information regarding lane closures, bus stop disruptions, etc. so that MTA or relevant agency can designate alternate pick-up/drop-off locations, if appropriate, and provide for uninterrupted service.</li> <li>• As necessary, obtain a transportation permit from Caltrans for transportation of heavy construction equipment and/or materials which requires the use of oversized-transport vehicles on State highways.</li> <li>• Other relevant traffic control measures.</li> </ul>	

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**Table 1-3  
Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<b>Air Quality</b>			
<ul style="list-style-type: none"> <li>PM10 emissions during construction (earth moving activities) (all CDS)</li> </ul>	LS	<p><b>CD-A1</b> Clean dirt from construction vehicle tires and undercarriages when leaving the construction site and before entering local roadways.</p> <p><b>CD-A2</b> During earth-moving activities, water the construction area as necessary, but at least twice per day.</p> <p><b>CD-A3</b> Water temporary open storage piles once per hour or install temporary covers.</p> <p><b>CD-A4</b> Water unpaved roadways three times per day or apply non-toxic soil stabilizers. (Note: Use of soil stabilizers near wetlands, streams, or other water features may be limited by regulatory agencies such as the U.S. Army Corps of Engineers and the California Department of Fish and Game.)</p> <p><b>CD-A5</b> Limit construction vehicle speed on the project site to 15 miles per hour (mph) or less.</p> <p><b>CD-A6</b> Cover dirt in trucks during on-road hauling.</p> <p><b>CD-A7</b> Cease earth-moving activities on days when wind gusts exceed 25 mph or apply water to soil not more than 15 minutes prior to moving such soil.</p> <p><b>CD-A8</b> Sweep streets near the construction area at the end of the day if visible soil material is present.</p> <p><b>CD-A9</b> For applicable construction areas, establish a vegetative groundcover as soon as feasible after active operations have ceased. Groundcover shall be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting.</p>	LS

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**Table 1-3 (Continued)**  
**Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		<p><b>CD-A10</b> Per SCAQMD Rule 403(e), large construction operations (greater than 50 acres of disturbed area or daily earth-moving or throughput volume of 5,000 cubic yards three times during the most recent 365-day period) shall implement applicable dust suppression measures specified in Table 2 of Rule 403 at all times. When the applicable performance standards cannot be met through use of Table 2 measures, the applicable contingency control measures specified in Table 3 of Rule 403 shall be implemented.</p>	
<ul style="list-style-type: none"> <li>Construction tailpipe emissions (all CDS)</li> </ul>	LS	<p><b>CD-A11</b> Prohibit all vehicles from idling in excess of 10 minutes, both on and off-site.</p> <p><b>CD-A12</b> Maintain construction equipment in proper tune.</p> <p><b>CD-A13</b> Encourage contractors to establish trip reduction plans. The goal of these plans will be to achieve a 1.5 average vehicle ridership (AVR) for construction employees.</p> <p>To further reduce tailpipe emissions from construction equipment, implementation of optional Mitigation Measure CD-A14 shall be considered at the time of construction of individual projects.</p> <p><b>CD-A14</b> Select construction equipment with low pollutant emissions and high energy efficiency. Factors to consider include model year and alternative fuels (e.g., compressed natural gas, biodiesel, emulsified diesel, methanol, propane, butane, and low sulfur diesel).</p>	LS
<ul style="list-style-type: none"> <li>Impacts related to odor</li> </ul>	LS	None	LS
<ul style="list-style-type: none"> <li>Operational impacts on air quality due to increased vehicle trips for maintenance activities and visitors recreational facilities (all CDS)</li> </ul>	LS	<p><b>CD-A15</b> Implement dust control if dry conditions and substantial area is disturbed for operations and maintenance activities that involve ground disturbance</p> <p><b>CD-A16</b> Select energy efficient lighting features or other building design considerations for proposed facilities (e.g., park buildings or interpretive centers) to minimize emissions associated with power generation.</p>	LS

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**Table 1-3 (Continued)**  
**Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<b>Biological Resources</b>			
<ul style="list-style-type: none"> <li>Construction impacts on special status plant species (all CDS)</li> </ul>	PS	<p><b>CD-B1</b> Prior to completion of detailed design plans for each of the five Concept Design Study sites, a qualified biologist shall conduct general plant and wildlife surveys to determine if any focused surveys for special status species are necessary. If the surveys confirm the potential for one or more special status species to occur, focused surveys for those species shall be conducted as described in Mitigation Measure CD-B2.</p> <p><b>CD-B2</b> If the general biological survey (Mitigation Measure CD-B1) indicates that there is potential for sensitive plant species to occur on the project site, a spring survey shall be conducted prior to finalizing the project designs. The special status plant species surveys shall follow guidelines developed by the CNPS (CNPS, 2001). These surveys, as outlined in the guidelines, shall be conducted during the appropriate time of year for each species as determined by a qualified botanist. Collection of special status plant species, if any, shall follow the guidelines of CDFG and USFWS collection permits. If any special status plant species are located, their rarity and abundance shall be evaluated. If the general biological survey indicates that there is potential for special status wildlife species to occur on the project site, protocol surveys for those species shall be conducted in accordance with appropriate survey protocols at the appropriate time of the year. The results of these investigations and the appropriate mitigation measures to reduce any potentially significant environmental impacts to a level that is less than significant shall be disclosed in second tier CEQA documentation.</p> <p>If any special status wildlife species are identified, the proposed facilities shall be designed and/or sited to avoid or reduce potentially significant impacts to the species during construction to levels that are less than significant. If nesting habitat of special status bird species will be impacted, project construction shall be scheduled outside of the breeding season, or a pre-construction survey shall be conducted to identify nests and to establish a buffer zone between the construction area and identified nests to avoid construction impacts.</p> <p>However, depending on the location of sensitive resources and/or construction schedule</p>	LS

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**Table 1-3 (Continued)**  
**Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		<p>requirements, project redesign and/or construction phasing that avoids biological resources while still meeting the project objective may be infeasible. Therefore, if avoidance is not feasible, the following measures shall be detailed and disclosed in second tier CEQA document and implemented under the direction of a qualified biologist:</p> <ul style="list-style-type: none"> <li>• Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment; or</li> <li>• Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the project; or</li> <li>• Compensating for the impact by replacing or providing substitute resources or environments.</li> </ul> <p>If avoidance of impacts to listed species is not feasible, then consultation with the USFWS shall be required for federally-listed species and consultation with the CDFG shall be required for state-listed species. As relevant, a special status plant mitigation program shall be developed following focused surveys and submitted to the appropriate agencies for review.</p>	
<ul style="list-style-type: none"> <li>• Construction impacts on least Bell’s vireo (DC, LC, and ED)</li> </ul>	PS	<p><b>CD-B3</b> Least Bell’s Vireo - Since least Bell’s vireos are known to occur in the vicinity of the San Gabriel River Discovery Center, Lario Creek, and El Dorado Regional Park, the following mitigation measure shall be implemented to reduce impacts on this Endangered species:</p> <p>To the extent feasible, no construction shall occur within the project site during the nesting season for least Bell’s vireo (March 15 to September 1). However, if construction work is necessary between March 15 and September 1, a qualified biologist shall survey suitable habitat within the impact area, plus 1,000 feet (300 meters) on either side of the impact area, to identify the presence of any least Bell’s vireo. No construction activities shall occur within 1,000 feet of a least Bell’s vireo territory until the end of the nesting season (September 1) or when the least Bell’s vireo departs the area, as determined by the biologist and with confirmation from the USFWS. The biological monitor shall use their discretion to increase the distance from vireo territory that construction can occur (in excess of 1,000 feet) or to limit use of the noisiest equipment to outside the nesting season if deemed necessary based on the type of construction equipment to be used.</p>	LS

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**Table 1-3 (Continued)**  
**Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<ul style="list-style-type: none"> <li>Construction impacts on nesting raptors (DC, LC, and ED)</li> </ul>	PS	<p><b>CD-B4</b> Nesting Raptors – The following mitigation measure shall be implemented to avoid raptor impacts:</p> <p>One week prior to construction and clearing activities that would occur during the nesting/breeding season of native bird species potentially nesting on the site (typically February through August), a survey shall be conducted by a qualified biologist to determine if active nests of bird species protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code are present within 300 feet (within 500 feet for raptors) of the construction zone. Construction can proceed if no active avian nests are located during this survey. If an active nest is found during the survey, a 500-foot (this distance may vary depending on the bird species and construction activity, as determined by the biologist) fence barrier shall be erected around the nest site. Clearing and construction within the fenced area shall be postponed or halted, at the discretion of the biologist, until the nest is vacated and juveniles have fledged, as determined by the biologist, and there is no evidence of a second attempt at nesting. The biologist shall serve as a construction monitor during those periods when construction activities may occur near active nests to ensure that no inadvertent impacts on these nests occur. Results of the raptor survey and any subsequent monitoring shall be provided to the CDFG and any other appropriate agency.</p>	LS
<ul style="list-style-type: none"> <li>Construction impacts on special status habitat types (DC, LC, and ED)</li> </ul>	LS	None	LS
<ul style="list-style-type: none"> <li>Construction impacts on respiratory function of plants (dust accumulation on leaf surfaces) (all CDS)</li> </ul>	LS	None	LS
<ul style="list-style-type: none"> <li>Impacts related to invasive plant species (all CDS)</li> </ul>	LS - B	<p><b>CD-B5</b> Invasive Plant Species – Landscaping of surrounding vegetation shall not include any invasive plant species as listed on the California Invasive Plant Council Pest Plant List.</p>	LS - B

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**Table 1-3 (Continued)  
Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<ul style="list-style-type: none"> <li>Lighting impacts on nocturnal and crepuscular (active at dawn and dusk) wildlife (all CDS)</li> </ul>	LS	<p><b>CD-B6 Night Lighting</b> – Night lighting is expected to be used in public areas for health and safety reasons. Lighting would inadvertently affect the behavior patterns of nocturnal and crepuscular (active at dawn and dusk) wildlife at these areas. Of greatest concern is the effect on small ground-dwelling animals that use the darkness to hide from predators, and on owls that are specialized night foragers. To reduce light impacts on nocturnal and crepuscular wildlife, night lighting shall be low intensity directional lighting focused away from open space areas.</p>	LS
<ul style="list-style-type: none"> <li>Disturbance of wildlife behavior and habitat associated with human activity (e.g., recreational visitors) (all CDS)</li> </ul>	PS	<p><b>CD-B7 Human Activity</b> – An appropriate plan for the management of native habitats shall accompany each Concept Design Study site to reduce impacts from human uses (e.g., riding, hiking, biking) on habitat areas. The management plan shall include access points including parking and restrooms, signage for trails and restricted uses, appropriate fencing, and restrictions on domestic animals. This plan shall be written by a qualified biologist and approved by the sponsoring agency prior to initiation of site development.</p>	LS
<ul style="list-style-type: none"> <li>Operational impacts on special status plant and wildlife species, special status habitat types, and native plant species from habitat restoration/enhancement projects (all CDS)</li> </ul>	LS - B	None	LS - B
<b>Cultural Resources</b>			
<ul style="list-style-type: none"> <li>Construction impacts on buried cultural resources (SG, LC, DC, and ED)</li> </ul>	PS	<p><b>CD-C1</b> On the first day of subsurface work at the San Gabriel Canyon Spreading Grounds, a professional monitor qualified in historical archaeology shall be present to assess whether further monitoring might be warranted. Further monitoring may be required if subsurface cultural material was uncovered on the first day of earthwork and/or if the monitor determined that there was a high probability of additional subsurface cultural materials being encountered.</p> <p><b>CD-C2</b> A professional monitor qualified in historical archaeology shall be present at the San Gabriel River Discovery Center for subsurface work between the surface and 5 feet (or more as determined by the monitor based on soil conditions) in depth. If potentially important cultural</p>	LS

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**Table 1-3 (Continued)**  
**Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		<p>deposits are encountered in the course of construction, work shall be temporarily diverted from the vicinity of the discovery until the monitoring archaeologist can identify and evaluate the importance of the find and conduct any appropriate assessment and activities, as necessary.</p> <p><b>CD-C5</b> A professional monitor qualified in historical archaeology shall be present at the Lario Creek project site for subsurface work between the surface and 5 feet (or more as determined by the monitor based on soil conditions) in depth. If potentially important cultural deposits are encountered in the course of construction, work shall be temporarily diverted from the vicinity of the discovery until the monitoring archaeologist can identify and evaluate the importance of the find and conduct any appropriate assessment and activities, as necessary.</p> <p><b>CD-C6</b> On the first day of subsurface work at El Dorado Regional Park, a professional monitor qualified in historical archaeology shall be present to assess whether further monitoring might be warranted.</p>	
<ul style="list-style-type: none"> <li>• Construction impact on historic resources (WF)</li> </ul>	PS	<p><b>CD-C7</b> During the design phase of Woodland Duck Farm, WCA shall evaluate if any onsite structures that are 45 years and older may be affected by the project.</p> <p>For each structure that is 45 years and older and shall be affected by the project, the structure’s significance shall be evaluated by a professional architectural historian, using the criteria listed in CEQA Guidelines Section 15064.5[a]. Results of this evaluation would be disclosed in second-tier environmental documentation.</p> <p>If the resource is found to be significant, the significance of project impacts on the resource shall be determined. (Significant change to a resource includes demolition, replacement, substantial alteration, or relocation (CCR Section 15064.5)).</p> <p>If project impacts are determined to be significant, the relevant resources shall be:</p> <ul style="list-style-type: none"> <li>• Incorporated into the project design, or</li> <li>• Removed and relocated to an appropriate location (e.g., museum, public library, or school)</li> </ul>	LS

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**Table 1-3 (Continued)**  
**Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<ul style="list-style-type: none"> <li>Replacement of the Nature Center building (DC)</li> </ul>	PS	<p><b>CD-C3</b> During the design phase of the San Gabriel River Discovery Center, the project proponent shall evaluate whether the Nature Center building is a significant historical resource using the criteria described in Section 15064.5(a) of the State CEQA Guidelines. If it is determined to be a significant historical resource, the lead agency shall:</p> <ul style="list-style-type: none"> <li>Remove and relocate the building or historically significant portion of the building to an appropriate location, or</li> <li>Incorporate the historically significant elements of the existing building into the new Discovery Center.</li> </ul>	LS
<ul style="list-style-type: none"> <li>Construction impacts on potential cultural resources identified during the records search and field reconnaissance (LC)</li> </ul>	PS	<p><b>CD-C4</b> During the design phase of Lario Creek, LADPW shall evaluate if the project can be designed to avoid the structures identified in Section 4.3.1.4 (locate the proposed structures or site disturbance at least 100 meters away from or around the structures).</p> <p>If avoidance is not feasible for one or more of the structures, the structure’s significance shall be evaluated, using the criteria listed in CEQA Guidelines Section 15064.5[a]. Results of this evaluation would be disclosed in second-tier environmental documentation.</p> <p>If the resource is found to be significant, the significance of project impacts on the resource shall be determined. (Significant change to a resource includes demolition, replacement, substantial alteration, or relocation (California Code of Regulations [CCR] Section 15064.5)). If feasible, the significant resource(s) shall be avoided.</p> <p>If project impacts are determined to be significant, LADPW shall:</p> <ul style="list-style-type: none"> <li>Incorporate the resource into the project design, or</li> <li>Remove and relocate the resource to an appropriate location (e.g., museum, public library, or school)</li> </ul>	LS
<ul style="list-style-type: none"> <li>Construction impacts on paleontological resources (all CDS)</li> </ul>	LS	None	LS

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**Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<ul style="list-style-type: none"> <li>Construction impacts on buried cultural resources and/or human remains (all CDS)</li> </ul>	PS	<p><b>CD-C8</b> If previously unknown cultural resources are discovered in the course of excavation for project construction, the construction inspector shall have the authority and responsibility to halt construction until a qualified archaeologist can evaluate the significance and distribution of the materials, and identify future activities needed. If the cultural material discovered is determined to be of potential archaeological significance, the investigation and future activities shall be conducted in consultation with a culturally affiliated Native American or other parties, as necessary.</p> <p><b>CD-C9</b> If human remains are discovered in the course of excavation for project construction, the County Coroner shall be contacted and provisions of State CEQA Guidelines Section 15064.5 shall be followed.</p>	LS
<b>Geology and Soils</b>			
<ul style="list-style-type: none"> <li>Impacts related to seismic ground shaking and surface rupture (all CDS)</li> </ul>	LS	None	LS
<ul style="list-style-type: none"> <li>Impacts related to liquefaction potential from proposed stormwater infiltration (WF, LC, DC, and ED)</li> </ul>	PS	<p><b>CD-G1</b> Prior to construction, conduct a geotechnical investigation to define site-specific subsurface conditions, including determination of site-specific groundwater levels and soil conditions to evaluate the potential for liquefaction onsite or at adjacent properties. Based on the results of the geotechnical analysis, the potential increase in liquefaction potential from the proposed infiltration shall be evaluated. Factors that should be considered include the capacity of the infiltration facility and the associated amount of water proposed for infiltration, infiltration rate, proximity and types of nearby structures that could be damaged from liquefaction, and infiltration at adjacent spreading grounds, if any.</p> <p>If the project is determined to have the potential to cause groundwater levels to rise within 30 feet of the surface, new monitoring wells and/or existing wells in the project area shall be used to detect any substantial increase in groundwater levels. If monitoring indicates a substantial rise in groundwater levels that could impact adjacent structures, stormwater would not be infiltrated and would be diverted into storm drains or onto street surfaces with sufficient capacity. Re-diversion of</p>	LS

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**Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		storm flows will be in compliance with the applicable provisions of the relevant NPDES municipal stormwater permits.	
<ul style="list-style-type: none"> <li>Impacts on power line towers related to expansive soils from proposed stormwater infiltration (WF, LC, DC, and ED)</li> </ul>	PS	See <b>CD-P10</b> under <b>Public Services and Utilities</b>	LS
<ul style="list-style-type: none"> <li>Impacts on habitable structures related to expansive soils (DC)</li> </ul>	PS	<p><b>CD-G2</b> During facility design, evaluate site soils to determine the area and thickness of expansive soils. If expansive soils are found, one or more of the following measures shall be specified in the construction plans to minimize potential hazards associated with expansive soils:</p> <ul style="list-style-type: none"> <li>Replacement of expansive soils with granular non-expansive soils, or</li> <li>Treatment of expansive soils with lime to reduce expansivity, or</li> <li>Other appropriate geotechnical practices.</li> </ul> <p>These measures that mitigate for expansive soils shall be incorporated into the construction documents.</p>	LS
<ul style="list-style-type: none"> <li>Impacts related to subsidence (all CDS)</li> </ul>	LS	None	LS
<ul style="list-style-type: none"> <li>Construction impacts on soil erosion (all CDS)</li> </ul>	PS	See <b>CD-W1</b> under <b>Hydrology and Water Quality</b>	LS
<b>Hazards and Hazardous Materials</b>			
<ul style="list-style-type: none"> <li>Impacts related to potential soil contamination at project sites (all CDS)</li> </ul>	PS	See <b>CD-W3</b> under <b>Hydrology and Water Quality</b>	LS

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**Table 1-3 (Continued)**  
**Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<ul style="list-style-type: none"> <li>Impacts related to handling of hazardous materials (sodium hypochlorite for stormwater disinfection and disposal of potentially contaminated sediments during maintenance of stormwater facilities) (WF, LC, DC, and ED)</li> </ul>	LS	None	LS
<ul style="list-style-type: none"> <li>Impacts related to potential increase in bird/wildlife air strike hazard at nearby airports (WF and ED)</li> </ul>	LS	<b>CD-H2</b> During the detailed design phase, FAA Western Pacific Regional Office and El Monte Airport (for Woodland Duck Farm) and Long Beach Airport (for El Dorado Regional Park) shall be notified of the proposed land use change to recognize potentially significant hazards early in the planning process and avoid or minimize the hazards.	LS
<ul style="list-style-type: none"> <li>Public health impacts related to potential increase in mosquito habitat (all CDS)</li> </ul>	PS	<b>CD-H1</b> Project plans and designs shall be submitted to the applicable vector control district (SGVMVCD for San Gabriel Canyon Spreading Grounds and Woodland Duck Farm and GLAVCD for San Gabriel River Discovery Center, Lario Creek, and El Dorado Regional Park) for review and comment with respect to control of mosquito and other vectors. Upon consultation with the vector control district, appropriate vector management measures shall be incorporated into the project design. Potential management measures include the following: <ul style="list-style-type: none"> <li>Design to minimize and/or provide periodic removal of vegetation on bank slopes and periphery of water bodies to minimize areas of stagnant water.</li> <li>Design and/or manage to optimize water depths and flow pattern. For mosquito control, maintain water depths and encourage/provide water circulation. For black fly control, minimize aeration of flowing water. If necessary, design water features to allow for periodical drying to desiccate vector larvae.</li> <li>Work with the vector control district to stock ponds and other permanent water features with mosquito-eating fish as needed.</li> <li>Provide site access to vector control district specifications (e.g., dikes with access roads or</li> </ul>	LS

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**Table 1-3 (Continued)  
Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		<p>trails) to potential breeding areas for maintenance (e.g., vegetation removal) and treatment (e.g., application of Bti or other larvicides).</p> <ul style="list-style-type: none"> <li>• Design stormwater retention facilities/devices to drain completely within 72 hours, or design with the capability to be dewatered rapidly if needed for vector control.</li> <li>• Incorporate measures into project designs that serve to educate the public about wildlife safety and vector-borne disease issues, prevent wildlife-human interactions, and prevent wildlife access to trash and unnatural food and water sources that are likely to result in unnatural population levels.</li> <li>• Design underground utility vaults, if needed for project implementation, to prevent retention of standing water thereby reducing vector breeding habitat.</li> <li>• Regularly consult with the vector control district to identify mosquito management problems, mosquito monitoring and abatement procedures, and opportunities to adjust water and vegetation management practices to reduce mosquito production.</li> <li>• Incorporate funding for vector management activities into project funding or implement a secure and reliable funding source for vector management activities.</li> </ul>	
<ul style="list-style-type: none"> <li>• Public health impacts of recycled water and stormwater reuse (WF, LC, DC, and ED)</li> </ul>	LS	None	LS
<b>Hydrology and Water Quality</b>			
<ul style="list-style-type: none"> <li>• Beneficial reduction in local and downstream flooding (WF, LC, DC, and ED)</li> </ul>	B	None	B
<ul style="list-style-type: none"> <li>• Increase in impervious surfaces or change in drainage patterns (SG, WF,</li> </ul>	LS	None	LS

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**Table 1-3 (Continued)**  
**Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
and DC)			
<ul style="list-style-type: none"> <li>Impacts on channel flood capacity (ED, LC, and WF)</li> </ul>	LS	None	LS
<ul style="list-style-type: none"> <li>Construction impacts on surface water quality related to soil erosion (all CDS)</li> </ul>	PS	<p><b>CD-W1</b> Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) for projects that involve constructing, clearing, grading or excavation on areas over 1 acre in size to minimize the amount of runoff and associated pollutants (e.g., sediments) leaving the construction site by containing the runoff onsite, containing the sediments onsite, and/or minimizing the potential for stormwater to come in contact with pollutants. The following are possible measures to be incorporated into site-specific SWPPPs. Additional sample measures and guidelines for developing SWPPPs are available in California Stormwater Quality Association’s Stormwater Best Management Practice Handbook – Construction (CASQA, 2003). Measures to reduce fugitive dust generated during construction (see Section 4.1.5 – Air Quality) will also minimize the potential for soil erosion.</p> <ul style="list-style-type: none"> <li>Install perimeter silt fences or hay bales.</li> <li>Stabilize soils through hydroseeding with native plant species where possible and use of soil stabilizers.</li> <li>Install temporary sedimentation basins.</li> <li>Conduct earth moving activities during the dry season (April through October), as feasible.</li> <li>Designate storage areas for construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants, paints, solvents, adhesives) to keep these materials out of the rain and minimize contact with stormwater.</li> <li>Conduct regular inspections to ensure compliance with the SWPPP.</li> </ul>	LS
<ul style="list-style-type: none"> <li>Construction impacts on water quality during channel modifications (ED, LC,</li> </ul>	PS	<p><b>CD-W6</b> For projects involving channel modifications, COE, Regional Board, U.S. Fish and Wildlife Service, and California Department of Fish and Game shall be consulted. All necessary</p>	LS

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**Table 1-3 (Continued)**  
**Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
and WF)		federal and state approvals (including CWA Section 404 permits, CWA Section 401 water quality certifications or waivers, and California Fish and Game Code Section 1602 Streambed Alteration Agreements) shall be obtained prior to the implementation of construction activities. Any conditions of agency approvals (e.g., measures to minimize the potential water quality impacts associated with the channel modification) shall be incorporated into the project design. Water quality mitigation options for use during construction of in-channel improvements include diversion of flows around the construction site, installation of in-stream silt curtains, or use of off-channel sediment retention ponds or tanks.	
<ul style="list-style-type: none"> <li>Reduction in discharges of stormwater pollutants (WF, LC, DC, and ED)</li> </ul>	B	None	B
<ul style="list-style-type: none"> <li>Water quality impacts of pesticide/herbicide use in landscaped areas or for exotic species removal (all CDS)</li> </ul>	PS	<b>CD-W2</b> For projects involving landscaping, habitat restoration, and/or removal of exotic plant species, select biological or non-chemical means of controlling exotics and pests unless not feasible because biological or non-chemical controls are not readily available for the specific exotics to be controlled. If chemical pesticide or herbicide use is necessary, compounds that are less persistent in the environment shall be selected, and application shall be conducted in accordance with manufacturers’ recommendations and general standards of use, e.g., restricted application before and during rain storms.	LS
<ul style="list-style-type: none"> <li>Operational impacts on water quality related to channel modifications (ED)</li> </ul>	LS	None	LS
<ul style="list-style-type: none"> <li>Groundwater quality impacts related to potential soil contamination at infiltration sites (WF, LC, DC, and ED)</li> </ul>	PS	<b>CD-W3</b> For projects involving substantial ground disturbance, conduct a Phase I Environmental Site Assessment (ESA) to determine the site-specific potential for soil contamination. The Phase I ESA shall be conducted in accordance with the latest version of the American Society of Testing and Materials (ASTM) 1527 “Standard Practice for Environmental Site Assessments: Phase I Environmental Assessment Process.” This document outlines the customary practice for performing ESA’s in the United States. Phase I ESA shall consist of a review of site-specific documents and historical maps to determine past uses of the site, a site visit to visually inspect the	LS

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**Table 1-3 (Continued)  
Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		property for signs of potential environmental contamination, and investigation of state and federal environmental regulatory databases to identify recognized hazardous materials usage or spills. For project sites with infiltration, the boundary of the Phase I ESA shall include parcels located within 500 feet of the project site boundary to identify active or abandoned landfills or other land uses with the potential for contaminated soils which would be incompatible with infiltration (to be cross-referenced with Mitigation Measure CD-W4). If the Phase I ESA concludes that there is no substantial potential for soil contamination, no further action would be required. If the Phase I ESA indicates that there is potential for soil to be contaminated, additional investigation (Phase II ESA, including soil sampling and analysis) shall be conducted to determine the presence and extent of the contamination. If the proposed project would involve disturbance of soil in the contaminated area, soil would be removed and disposed of in compliance with applicable regulations at approved disposal sites.	
<ul style="list-style-type: none"> <li>Groundwater hydrology impacts (Potential inundation of landfill material from stormwater infiltration) (WF, LC, DC, and ED)</li> </ul>	PS	<p><b>CD-W4</b> If the site-specific Phase I ESA (Mitigation Measure CD-W3) indicates that an active or closed landfill (either municipal solid waste or inert construction waste) is located within 500 feet of the project site boundary, then a site-specific geotechnical study shall be conducted to: 1) characterize the extent and composition of landfill materials; 2) determine whether the landfill materials are releasing methane; 3) and estimate the potential mounding effect from the proposed stormwater infiltration. The results of the geotechnical study shall be incorporated into the project design to minimize the potential for project infiltration to result in interaction between infiltrated stormwater and landfill materials or to impact landfill gas releases, if any. Potential design modifications include siting the infiltration facilities away from the landfill and/or partially lining the facilities to direct infiltration away from the landfill. For sites with stormwater infiltration within 500 feet of an active or closed landfill, a groundwater monitoring program shall be developed and implemented to ensure that infiltration does not result in interaction between infiltrated stormwater and landfilled materials or impact landfill gas releases. Infiltration would cease at any site where groundwater levels rose to within 10 feet of landfilled materials to prevent interaction of infiltrated water with landfill materials.</p>	LS

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**Table 1-3 (Continued)**  
**Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<ul style="list-style-type: none"> <li>Operational impacts on groundwater quality from stormwater infiltration (WF, LC, DC, and ED)</li> </ul>	LS - PS	<p><b>CD-W5</b> For projects that involve stormwater infiltration, conduct vadose zone and groundwater quality monitoring. If monitoring results indicate substantial water quality degradation, pursue the following general strategy:</p> <ul style="list-style-type: none"> <li>Provide additional treatment prior to infiltration, or</li> <li>Redesign project to reduce or eliminate infiltration (e.g., lining), or</li> <li>Identify an alternative water source (e.g., reclaimed water).</li> </ul>	LS
<ul style="list-style-type: none"> <li>Water supply and water rights (all CDS)</li> </ul>	LS - B	None	LS - B
<ul style="list-style-type: none"> <li>Impacts related to dam safety (WF, LC, DC, and ED)</li> </ul>	LS	None	LS
<b>Land Use</b>			
<ul style="list-style-type: none"> <li>Land use impacts (physical division of an established community; conflicts with applicable land use plans, policies or regulations) (all CDS)</li> </ul>	LS	None	LS
<ul style="list-style-type: none"> <li>Impacts on availability of mineral resources (all CDS)</li> </ul>	LS	None	LS
<b>Noise</b>			
<ul style="list-style-type: none"> <li>Construction noise impact on sensitive receptors (all CDS)</li> </ul>	PS	<p><b>CD-N1</b> Limit construction activities to the hours allowed by the applicable jurisdiction’s noise ordinance (City of Azusa for San Gabriel Canyon Spreading Grounds; County of Los Angeles for Woodland Duck Farm, San Gabriel River Discovery Center, and Lario Creek; and City of Long Beach for El Dorado Regional Park).</p> <p><b>CD-N2</b> Equip all mobile construction equipment with properly operating mufflers or other noise reduction devices.</p>	LS

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**Table 1-3 (Continued)**  
**Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		<p><b>CD-N3</b> Notify businesses and residences immediately adjacent to the construction site prior to the start of construction (e.g., via flyers). Include a telephone number for noise complaints in this notification.</p> <p><b>CD-N4</b> Prior to the start of construction of the project, require the construction contractor to develop a site-specific noise mitigation plan based on an updated estimate of construction equipment and schedule. One or more of the following measures shall be implemented as applicable to reduce noise levels to meet the relevant jurisdiction’s construction noise standards:</p> <ul style="list-style-type: none"> <li>• Install temporary sound walls, sound curtains, or other temporary sound barriers</li> <li>• Select quieter construction procedures and/or equipment</li> </ul>	
<ul style="list-style-type: none"> <li>• Operational noise impacts (operation of pumps, use of vehicles for facility maintenance, and increased traffic to parks) (all CDS)</li> </ul>	LS	None	LS
<ul style="list-style-type: none"> <li>• Impact of siting new parks in areas with high ambient noise levels (WF)</li> </ul>	LS	None	LS
<b>Public Services and Utilities</b>			
<ul style="list-style-type: none"> <li>• Construction impact on police and fire protection services from temporary lane and/or road closures during construction of storm drains, etc. (all CDS)</li> </ul>	PS	<p><b>CD-P1</b> Prior to the start of construction, consult the fire station(s) serving the project area and review phasing, road/lane closure, and detour plans. The fire station(s) may then identify alternative fire and emergency medical response routes.</p> <p><b>CD-P2</b> Prior to the start of construction, consult the police station(s) serving the project area, as appropriate, of project-related lane and/or road closures and detour plans. The police station(s) may then identify alternative police emergency response routes.</p> <p><b>CD-P3</b> If determined to be necessary by the relevant police and/or fire service providers, implement one or more of the following applicable traffic control measures capable of reducing</p>	LS

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**Table 1-3 (Continued)**  
**Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		the temporary adverse effects to police and emergency vehicle travel during project construction: <ul style="list-style-type: none"> <li>• Use flagmen to direct traffic</li> <li>• Post “No Parking” signs along the affected area</li> <li>• Install temporary signals or signs to direct traffic</li> <li>• Other equivalent traffic control measures</li> </ul>	
<ul style="list-style-type: none"> <li>• Operational impact on police and fire protection services (all CDS)</li> </ul>	LS	None	LS
<ul style="list-style-type: none"> <li>• Construction impact on school access and student safety (DC and LC)</li> </ul>	LS	<p><b>CD-P4</b> Prior to project construction, contact school administrators to provide sufficient notice to forewarn school bus operators, children, and parents when existing pedestrian and vehicular routes to school will be affected. As necessary to protect the safety of children, parents and employees accessing the school, one or more of the following measures shall be implemented in coordination with the school administrators:</p> <ul style="list-style-type: none"> <li>• Develop temporary alternative pedestrian and vehicular routes to the school that avoid construction areas</li> <li>• Install appropriate temporary traffic controls (signs, crossing guards, and/or signals) as needed to ensure pedestrian and vehicular safety</li> <li>• Minimize use of haul routes past the school when school is in session</li> <li>• Prohibit parking or staging of construction or worker vehicles on streets adjacent to the school.</li> </ul> <p><b>CD-P5</b> Secure all construction areas adjacent to the school, including trench areas, operating equipment areas and equipment staging and stockpile areas, through fencing or other barriers to prevent trespassing and reduce hazards to children and other pedestrians.</p>	LS

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**Table 1-3 (Continued)**  
**Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<ul style="list-style-type: none"> <li>Construction impacts on school commuting routes from temporary lane and/or road closures during construction of storm drains, etc. (all CDS)</li> </ul>	PS	<b>CD-P6</b> Notify the applicable school district of the expected start and end dates for various portions of the project that may affect traffic in the area and any potential impact on existing school bus routes to facilitate identification of alternative routes and minimize unexpected delays in commuting to the school.	LS
<ul style="list-style-type: none"> <li>Potential interference with existing utilities within street rights-of-way from construction of storm drains, etc. (all five CDS)</li> </ul>	PS	<b>CD-P7</b> During design of each project component, consult the applicable utility service provider(s) to identify existing and proposed buried facilities in affected roadways and to determine which utilities require relocation and which can be avoided. If results of the consultation indicate that project construction could affect buried facilities, one or more of the following measures shall be implemented as applicable: <ul style="list-style-type: none"> <li>If relocation is required, sequence construction activities to avoid or minimize interruptions in service.</li> <li>If utility service disruption is necessary, notify residents and businesses in the project area a minimum of 2 to 4 days prior to service disruption through local newspapers, direct mailings to affected parties, or public posting of notices.</li> <li>If project construction would occur near existing utilities, require the contractor to excavate around utilities, including hand excavation as necessary, to avoid damage and to minimize interference with safe operation and use. Hand tools must be used to expose the exact location of buried gas or electric utilities.</li> </ul>	LS
<ul style="list-style-type: none"> <li>Operational impacts related to sewer and wastewater treatment systems, water supply systems, electricity consumption, and solid waste (all CDS)</li> </ul>	LS	None	LS
<ul style="list-style-type: none"> <li>Impact on landfill capacity from generation of solid waste during construction (all CDS)</li> </ul>	LS	<b>CD-P8</b> State in the plans and specifications for the proposed project that the construction contractor is required to identify and implement one or more of the following applicable programs for minimizing solid waste generated during construction:	LS

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**Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
		<ul style="list-style-type: none"> <li>• Recycling of asphalt and concrete paving materials</li> <li>• Reuse and composting of green waste materials where there is limited potential for inadvertent spreading of invasive plants</li> <li>• Balance graded soil on site to the maximum extent feasible</li> </ul>	
<ul style="list-style-type: none"> <li>• Impact on solid waste collection routes from temporary lane and/or road closures during construction of storm drains, etc. (all CDS)</li> </ul>	LS	<b>CD-P9</b> Prior to construction, notify the relevant municipality of the construction schedule and planned lane or road closures. The municipality or agency may then modify the solid waste collection routes and access in the area.	LS
<ul style="list-style-type: none"> <li>• Operational impact on power line towers from stormwater infiltration (WF and ED)</li> </ul>	PS	<b>CD-P10</b> During design of the facility, conduct a geotechnical investigation to assess the characteristics and stability of the soil around the power line towers. If results of the investigation indicate that stormwater infiltration may saturate the soil and affect the stability of the towers, one or more of the following changes shall be incorporated into the site design as applicable: <ul style="list-style-type: none"> <li>• Site the proposed retention basins to avoid the towers, if possible, or construct a series of drywells so that water would be infiltrated deeper into the ground to avoid saturation of surface soils.</li> <li>• Install a liner along the sideslope of the basin closest to the power line towers to prevent infiltration. (The liner would cover only a small portion of the infiltration basin.)</li> </ul>	LS
<b>Recreation</b>			
<ul style="list-style-type: none"> <li>• Construction impact on existing parks (DC, LC, and ED)</li> </ul>	LS	None	LS
<ul style="list-style-type: none"> <li>• Increased acreage and quality of recreational facilities (all CDS)</li> </ul>	B	None	B

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**Summary of Concept Design Study Impacts and Mitigation Measures**

Environmental Impact	Impact Significance	Mitigation Measures	Impact Significance After Mitigation
<b>Traffic and Transportation</b>			
<ul style="list-style-type: none"> <li>• Temporary impact on traffic in the project area from construction vehicles and equipment (all CDS)</li> <li>• Temporary impact on traffic in the project area from construction activities in the street rights-of-way (e.g., storm drains) (all CDS)</li> </ul>	LS	<p><b>CD-T1</b> A construction traffic management plan shall be developed for each project site that shall include but not be limited to such measures as designated haul routes for construction-related traffic (e.g., construction equipment, pickup and dump trucks, and other material delivery trucks), travel time restrictions for construction-related traffic to avoid weekday peak periods on selected roadways, designated site access locations, driveway turning restrictions, temporary traffic controls and/or flaggers, and designated parking/staging locations for workers and equipment.</p> <p><b>CD-T2</b> A construction area traffic control plan and/or detour plan shall be prepared for any location where construction activities would encroach into the right-of-way of a public roadway. The plan would include, but not be limited to such features as warning signs, lights, barricades, cones, lane closures, and restricted hours during which lane closures would not be allowed (e.g., 6:00 to 9:00 a.m. and 3:00 to 6:00 p.m., or as directed by the affected public agency).</p> <p><b>CD-T3</b> Provide advance notification to affected property owners, businesses, residents, etc. of possible driveway blockages or other access obstructions and implement alternate access and parking provisions where necessary.</p> <p><b>CD-T4</b> Provide alternative pedestrian and bicycle access/circulation routes if existing facilities such as sidewalks, crosswalks, and bike lanes would be obstructed to ensure safe pedestrian/bicycle travel.</p> <p><b>CD-T5</b> Coordinate with emergency service providers (police, fire, and ambulance/paramedic agencies) prior to construction to provide information regarding lane closures, construction schedules, driveway blockages, etc., if any, and develop a plan to maintain or accommodate essential emergency access routes (e.g., plating over excavations and use of detours).</p> <p><b>CD-T6</b> Coordinate with public transit agencies (e.g., MTA) to provide information regarding lane closures, bus stop disruptions, etc. so that MTA or relevant agency can designate alternate pick-up/drop-off locations, if appropriate, and provide for uninterrupted service.</p>	LS

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		<b>CD-T7</b> As necessary, obtain a transportation permit from Caltrans for transportation of heavy construction equipment and/or materials which requires the use of oversized-transport vehicles on State highways.	
<ul style="list-style-type: none"> <li>Operational impacts on traffic from increased visitors to proposed recreational facilities (all CDS)</li> </ul>	LS	None	LS

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