FINDINGS OF FACT
AND
STATEMENT OF OVERRIDING CONSIDERATIONS

SANTA ANITA DAM RISER MODIFICATION AND RESERVOIR SEDIMENT REMOVAL PROJECT FINAL ENVIRONMENTAL IMPACT REPORT (SCH NO. 2007061093)

Lead Agency
Los Angeles County Department of Public Works
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Alhambra, CA 91803

Findings By
County of Los Angeles Board of Supervisors

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CHAPTER 1
INTRODUCTION

The California Environmental Quality Act (CEQA), (PRC §21080) and the CEQA Guidelines (14 CCR §15063) state that if it has been determined that a project may or will have significant impacts on the environment then an Environmental Impact Report (EIR) must be prepared. Accordingly, an EIR has been prepared by the Los Angeles County Department of Public Works (LACDPW) to evaluate potential environmental effects that may result from the proposed Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project. The EIR has been prepared in accordance with the California Environmental Quality Act of 1970, as amended (Cal. Pub. Res. Code, § 21000 *et seq*.), and implementing State CEQA Guidelines (Cal. Code Regs., Title 14, § 15000 *et seq*.).

1.1 CERTIFICATION

In accordance with CEQA Guidelines Section 15090, the County of Los Angeles Board of Supervisors, as Lead Agency for the Project, certifies that:

(a) The Final EIR for the Project has been completed and processed in compliance with the requirements of CEQA;

(b) The Final EIR was presented to the County of Los Angeles Board of Supervisors, as the decision making body for the LACDPW, reviewed and considered the information contained in the Final EIR prior to approving the Project; and

(c) The Final EIR reflects the LACDPW's independent judgment and analysis.

The LACDPW has exercised independent judgment in accordance with Public Resources Code Section 21082.1(c) in retaining its own environmental consultant directing the consultant in preparation of the EIR as well as reviewing, analyzing, and revising material prepared by the consultant.

These Findings of Fact (Findings) and Statement of Overriding Considerations have been prepared in accordance with CEQA and the CEQA Guidelines. The purpose of these Findings is to satisfy the requirements of Public Resources Code Section 21081 and Sections 15090, 15091, 15092, 15093, and 15097 of the CEQA Guidelines, in connection with the approval of the Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project.

Before project approval, an EIR must be certified pursuant to Section 15090 of the CEQA Guidelines. Prior to approving a project for which an EIR has been certified, and for which the EIR identifies one or more significant environmental impacts, the approving agency must make one or more of the following

findings, accompanied by a brief explanation of the rationale, pursuant to Public Resources Code Section 21081 Section 15091 of the CEQA Guidelines, for each identified significant impact:

> (1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.
>
> (2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
>
> (3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

It is recommended that one or more of the specific written findings above be adopted regarding each significant impact associated with the Project. Those findings are presented here, along with a presentation of facts in support of the findings. Concurrent with the adoption of these findings, it is recommended that the Board of Supervisors adopts the Mitigation Monitoring and Reporting Program as presented in Chapter 8 of the Final EIR and Chapter 10 of these Findings.

Section 15092 of the CEQA Guidelines states that after consideration of an EIR, and in conjunction with the Section 15091 findings identified above, the lead agency may decide whether or how to approve or carry out the project. The lead agency may approve a project with unavoidable adverse environmental effects only when it finds that specific economic legal, social, technological, or other benefits of the proposed project outweigh those effects. Section 15093 requires the lead agency to document and substantiate any such determination in a "statement of overriding considerations" as a part of the record. The County's Statement of Overriding Considerations is presented in Chapter 9 of these Findings.

It is recommended that the LACDPW expressly finds the Final EIR for the Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project reflects the LACDPW's independent review and judgment, as required by CEQA. In accordance with the provisions of CEQA and the CEQA Guidelines, it is recommended that the County of Los Angeles Board of Supervisors adopt these Findings and Statement of Overriding Considerations as part of its certification of the Final EIR. An explanation of the rationale for each finding is provided in Sections 4, 5, 6 and 7.

1.2 ORGANIZATION OF CEQA FINDINGS OF FACT

The content and format of this CEQA Findings is designed to meet the latest CEQA Statutes and Guidelines. The Findings are organized into the following sections:

Chapter 1, Introduction outlines the organization of this document and identifies the location and custodian of the record of proceedings.

Chapter 2, Project Description describes the location, project overview, project objectives, and the required permits and approvals for the project.

Chapter 3, CEQA Review and Public Outreach describes the steps the LACDPW has undertaken to comply with the CEQA Guidelines as they relate to public input, review, and participation during the preparation of the Draft and Final EIRs.

Chapter 4, Impacts Determined to be Less than Significant provides a summary of those environmental issue areas where no reasonably foreseeable impacts would occur and those impacts determined to be below the threshold of significance without the incorporation of mitigation measures.

Chapter 5, Less Than Significant Environmental Impacts with Mitigation provides a summary of significant environmental impacts for which implementation of identified feasible mitigation measures would avoid or substantially reduce the environmental impacts to less than significant levels. This section also provides specific written findings regarding each potentially significant impact associated with the Project.

Chapter 6, Significant Environmental Impacts provides a summary of significant environmental impacts for which no feasible mitigation measures are identified or for which implementation of identified feasible mitigation measures would not avoid or substantially reduce the environmental effects to less than significant levels. This section also provides specific written findings regarding each significant impact associated with the Project.

Chapter 7, Findings Regarding Project Alternatives provides a summary of the alternatives considered for the project.

Chapter 8, Statement of Overriding Considerations provides a summary of all of the project's significant unavoidable adverse impacts. In addition, this section identifies the project's substantial benefits that outweigh and override the project's significant unavoidable impacts, such that the impacts are considered acceptable.

Chapter 9, Findings on Mitigation Monitoring and Reporting Program provides a brief discussion of the project's compliance with the CEQA Guidelines regarding the adoption of a program for reporting and monitoring.

Chapter 10, Findings Regarding Changes to the Draft EIR and Recirculation provides a summary of the changes to the Draft EIR in response to public comments received and findings that changes to the Draft EIR does not require recirculation of the Draft EIR for public review.

1.3 RECORD OF PROCEEDINGS

The documents and other materials that constitute the record of proceedings upon which the County of Los Angeles Board of Supervisors project approval is based are located at 900 South Fremont Avenue, Alhambra, CA 91803. The Los Angeles County Department of Public Works is the custodian of such documents and other materials that constitute the record of proceedings. The record of proceedings is provided in compliance with Public Resources Code §21081.6 (a)(2) California Code of Regulations Title 14, §15091(e).

CHAPTER 2
PROJECT DESCRIPTION

2.1 ENVIRONMENTAL SETTING

2.1.1 EXISTING SETTING

The proposed project is located on the border of the City of Arcadia, in the western San Gabriel Valley in Los Angeles County, approximately 15 miles northeast of downtown Los Angeles. The project area is located on both the City of Arcadia and U.S. Forest Service land, approximately 2.5 miles north of the 210 Foothill Freeway. Land uses adjacent to the project area include the Angeles National Forest to the north, the City of Arcadia Wilderness Park on the north, single-family residential uses to the west and south, and the City of Monrovia open space to the east.

The project area includes the Santa Anita Reservoir, the Santa Anita Dam, the tunnel from the reservoir to the downstream access road along the streambed, and Santa Anita Headworks, Santa Anita Debris Basin (DB), and the Santa Anita Sediment Placement Site (SPS). These facilities are owned and operated by the Los Angeles County Department of Public Works (LADPW). The Santa Anita Reservoir, the streamside access road, and the Headworks are located in the Angeles National Forest above the City of Arcadia. The Wilderness Park, DB, and SPS are all located below the reservoir in the City of Arcadia.

The Santa Anita SPS is comprised of three sections (the Upper, Middle, and Lower SPS areas). The Upper SPS area, located in the northerly end of the SPS, is an already disturbed area, but does not have sufficient capacity for the anticipated sediment to be removed from the reservoir. The Middle SPS area has always been planned for sediment storage use; apart from existing access roads it is relatively undisturbed and characterized by native vegetation because it has not been used for previous sediment storage activities. The Lower SPS area, located in the southerly end of the SPS areas, is a previously disturbed area that contains sediment from prior cleanouts of the reservoir, debris basin and other local flood protection facilities; it also does not have sufficient capacity to accommodate the expected volume of sediment from the reservoir.

2.1.2 SURROUNDING LAND USES

The project area is located on both the City of Arcadia and U.S. Forest Service land, approximately 2.5 miles north of the 210 Foothill Freeway. Land uses adjacent to the project area include the Angeles National Forest to the north, the City of Arcadia Wilderness Park on the north, single-family residential uses to the west and south, and the City of Monrovia open space to the east. The Wilderness Park is a 120-acre nature preserve located below Big Santa Anita Canyon, which is owned and managed by the City of Arcadia.

The topography to the north of the project site is characterized by the foothills and steep slopes of the San Gabriel Mountains, the area to the west and south of the project area is generally flat with scattered rolling hills, and the area to the east contains mostly rolling hills.

There are two schools located within ¼ mile of the project site: the Highland Oaks Elementary School (10 Virginia Drive), located to the west, and the Foothill Middle School (171 East Sycamore Avenue), located to the south.

2.2 PROJECT OVERVIEW

The proposed project consists of draining the Santa Anita Reservoir, removing sediment and debris from the reservoir by dry excavation, transporting the sediment from the reservoir via conveyor belt, and placing it in the Santa Anita SPS. The sediment transport route extends approximately 1.5 miles from the reservoir on the north to the sediment placement site on the south. At the completion of the proposed project, no operational changes would occur at any of the areas that are used during the construction activities of the project, except at the Lower SPS, which would be closed out to future sediment placement activities after the project. A description of the key components is provided below.

DAM OUTLET MODIFICATION

The proposed project includes improvements to the Santa Anita Dam, which would involve modifications to the dam's inlet/outlet works, including the construction of a new riser. In order to comply with California Department of Water Resources, Division of Safety of Dams (DSOD's) seismic stability standards, the riser modification would be done concurrently with the sediment removal project. The bottom elevation at the entrance to the low-level outlet is 1,179.5 feet. There is no existing riser on this outlet. The sediment elevation at the face of the dam is at approximately 1,212 feet.

The dam outlet modification component consists of constructing a concrete riser on the lowest outlet gate of the dam to El. 1,230 feet. The existing trash rack in front of this gate would be moved to the outside of the new riser and the existing gate would remain in place. An additional gate would be installed on the outside of the new riser. Additional slide gates may be installed on the new riser and/or the existing risers for Valve Nos. 2, 3, and 4, to allow for operations below the new restricted level. Installation of the new riser would allow water above El. 1,230 feet to freely pass through the dam, thus meeting DSOD's seismic safety requirements.

DRY EXCAVATION

The proposed project would remove approximately 500,000 cubic yards of sediment from Santa Anita Reservoir. Prior to sediment removal, the reservoir would be drained and a dry-out period, which could last several weeks, would be required. Sediment would be removed from the reservoir and transported on

the conveyor belt system described below. All sediment removal activities would occur below the El. 1,300 feet.

SEDIMENT CONVEYANCE

The proposed project would transport sediment from the reservoir to the proposed SPS areas using an electric conveyor belt system. The conveyor belt would extend from the reservoir through an existing tunnel that connects the reservoir to an access road located below the dam on the east side of the streambed, continuing along the access road, past the Headworks, over the Wilderness Park parking lot (not obstructing traffic or emergency vehicles), south on the fire access roads, past the upper portion of the debris basin, and would terminate at the upper portion of the Lower SPS. The conveyor belt would transport sediment approximately 1.5 miles. The approximate dimensions of the electric conveyance system would be approximately 5 feet wide and up to 15 feet high.

Because modification of the riser requires the dam's outlet to be completely dry, a PVC pipe would be used to bypass reservoir inflow through the tunnel to the downstream area. The PVC pipe would outlet into Santa Anita Wash immediately south of the tunnel entrance.

SEDIMENT PLACEMENT

Approximately 250,000 cubic yards of sediment would be placed in the approximately 5-acre already disturbed Lower SPS first. The Lower SPS would then be closed out to future sediment placement; the remainder of the excavated sediment, up to 250,000 cubic yards, would be placed at the 13-acre area in the Middle SPS, located east of the Santa Anita Wash, south of the existing Upper SPS.

The base of the 13-acre Middle SPS area can be tiered in order to accommodate up to 710,000 cubic yards of material. As planned, the ultimate height of the Middle SPS would be 60 feet from the lowest elevation at the southern end of the SPS. The proposed project would place approximately 250,000 cubic yards of sediment at the Middle SPS, increasing the height from the existing ground up to approximately 30 feet. The western edge of the SPS would be landscaped in a following project to create a visual buffer for the residences to the west.

The proposed project would require the removal of approximately 0.5 acres of vegetation in the Lower SPS. The current elevation of the Lower SPS ranges from approximately 630 feet to 650 feet. The proposed sediment height at the Lower SPS would increase approximately 30 feet from existing elevations.

The proposed project would require the removal of approximately 11 acres of native vegetation in the undeveloped Middle SPS. The remaining two acres of the sediment placement footprint is comprised of existing access roads. Approximately 250,000 cubic yards of sediment would be conveyed to the already disturbed Lower SPS and up to 250,000 cubic yards of sediment would be conveyed to the Middle SPS. The remaining sediment capacity in the 13-acre footprint, approximately 500,000 cubic yards, would be

used for future routine and emergency sediment removal activities of facilities served by the Santa Anita SPS. This is necessary since the Lower SPS, which currently serves this purpose, would be closed out for future sediment placement. However, future clean-out activities are outside of the scope of this project and would be subject to additional environmental review and analysis.

CONSTRUCTION ACTIVITIES

LACDPW would attempt to complete the sediment removal within the summer and fall of 2009, but sediment removal activities may last over the two 6 to 8 -month periods of April through October (possibly to December, weather permitting). The removal of vegetation in a portion of the Middle SPS area is anticipated to occur after June 2009. The riser construction would likely occur between June 2009 and December 2009, although the contractor may choose an alternate construction sequence. Dewatering of the reservoir would occur for approximately two weeks. The dry out of the reservoir would start at the end of the dewatering cycle, which is anticipated to be in early summer 2009 and last up to three weeks, depending on the magnitude of recession flows and the weather.

GENERAL CONSTRUCTION REQUIREMENTS

To reduce potential impacts to air quality, noise, and water quality the construction and operation of the proposed project would be conducted in accordance with applicable standards and BMPs. The following environmental safeguards would be implemented as part of the proposed project:

- Project will implement applicable construction procedures approved by the South Coast Air Management District, including Rule 403.

To reduce potential impacts to water quality, construction of the proposed project would implement the following project provisions:

- Project will comply with the provisions of the State's General Construction Activities Permit (General Permit). The project would also conform to the requirements in the latest edition of the Los Angeles County Department of Public Works "Construction Site Best Management Practices Manual" (BMP Manual). Erosion control and grading plans would include:

  - Temporary soil stabilization through scheduling work outside of the wet season as much as possible (work in the SPS may have to occur through February), preservation of existing vegetation, mulching, hydroseeding, soil binders (if permitted), erosion control blankets, earth dikes, drainage swales, and/or slope drains.
  - Temporary sediment control through silt fencing, desilting basins, sediment traps, check dams, fiber rolls, barriers or berms, street sweeping, and/or storm drain protection.
  - Wind erosion control.
  - Tracking control through stabilization of construction entrances/exits and roadways, and/or tire washes.

- Non-storm water management through water conservation practices and during vehicle equipment cleaning, fueling, and maintenance, dewatering operations, or stream crossings.
- Waste management and material pollution control including management of stockpiles, solid waste, hazardous waste, contaminated soil, concrete waste, sanitary waste, and liquid waste, spill prevention/control, and proper material delivery, use, storage, and disposal.

2.3 PROJECT OBJECTIVES

The purpose of the proposed project is to remove the sediment that has accumulated behind the dam since the last clean out and to construct a new riser on the low-level outlet of the dam. DSOD is lowering the maximum allowable water elevation behind the dam. The goal of the proposed project is to comply with DSOD's seismic safety requirements and ensure the ability to draw down the reservoir water levels to the elevation of 1,230 feet. The primary project objectives identified to support this goal include:

- Remove the sediment accumulated in the reservoir in a timely manner to avoid plugging and damage to the dam's outlet works.
- Modify the riser on the dam's lowest gate to ensure that DSOD's water level restrictions and seismic safety requirements are met.
- Provide additional sediment storage capacity for future routine and emergency cleanout activities served by the Santa Anita SPS.

2.4 DISCRETIONARY ACTIONS

An EIR is a public document used by a public agency to analyze the significant environmental effects of a proposed project, to identify alternatives, and to disclose possible ways to reduce or avoid environmental damage (Cal. Code Regs., Title 14, §15121). As an informational document, an EIR does not recommend for or against approval of a project. The main purpose of an EIR is to inform governmental decision-makers and the public about the potential environmental impacts of a proposed project. As the lead agency under CEQA, this EIR will be used by the County in making decisions with regard to the construction and operation of the proposed project. The information in this EIR will also be used by responsible agencies and other agencies with jurisdiction, as listed below, in deciding whether to grant permits or approvals to construct or operate the proposed project.

Agency	Permit/Action
Federal	
U.S. Forest Service	Special Use Permit
U.S. Army Corps of Engineers	Section 404 Individual Permit for the discharge of dredged or fill material into Santa Anita Wash.
U.S. Fish and Wildlife Service	Section 7 consultation
State	
California Department of Fish and Game	Section 1600 Streambed Alteration Agreement
California Regional Water Quality Control Board, Los Angeles Region	Construction General Permit for ground disturbing activities; Section 401 Permit for discharge of storm water into Santa Anita Wash
Local	
City of Arcadia	Various ministerial approvals (e.g., grading, drainage, and traffic control)
Southern California Edison	Utility relocation

CHAPTER 3
CEQA REVIEW AND PUBLIC OUTREACH

The County has complied with CEQA and the CEQA Guidelines during the preparation of the EIR for the project. The Draft EIR, dated May 2008, was prepared after soliciting input from the public, responsible agencies, and affected agencies through the EIR scoping process. The "scoping" of the EIR was conducted utilizing several of the tools available under CEQA. In accordance with Sections 15063 and 15082 of the CEQA Guidelines, a Notice of Preparation (NOP) and Initial Study were prepared and distributed to the California Office of Planning and Research (State Clearinghouse), responsible agencies, affected agencies, and other interested parties on June 20, 2007. The NOP was posted in the Los Angeles County Clerk's office for 30 days. The NOP was also submitted to the State Clearinghouse to officially solicit participation in determining the scope of the EIR. In response to the NOP, ten written comment letters were received from various agencies, organizations, and individuals.

A public scoping meeting was held on July 11, 2007 at First Avenue Middle School in the City of Arcadia. The purpose of the meeting was to seek input from public agencies and the general public regarding the environmental issues and concerns that may potentially result from the proposed project. Approximately ten people attended the scoping meeting. A summary of the public comments and copies of the written comment letters are included in Final EIR.

The Draft EIR was circulated for public review and comment on May 5, 2008, initiating a 45-day public review period pursuant to CEQA and its implementing guidelines. The public review period provided interested public agencies, groups, and individuals the opportunity to comment on the contents and accuracy of the document. The document and Notice of Completion (NOC) was distributed to the State Clearinghouse. Relevant agencies also received copies of the document. A Notice of Availability (NOA) was distributed to over 1,100 interested parties and adjacent property owners and residents, which informed them of where they could view the document and how to comment. The NOA was also posted in the *Arcadia Weekly* on May 22, 2008. The purpose of the 45-day review period is to provide interested public agencies, groups and individuals the opportunity to comment on the contents and accuracy of the document. The document was available to the public at the County of Los Angeles Department of Public Works and the City of Arcadia Public Library and City of Sierra Madre Public Library. A copy of the document was also posted online.

A Final EIR has been completed and includes written comments received by mail and electronic mail on the Draft EIR, verbal comments received at the Draft EIR public hearing, written responses to the written and verbal comments, and changes to the Draft EIR.

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CHAPTER 4
IMPACTS DETERMINED TO BE LESS THAN SIGNIFICANT

The following summary briefly describes impacts determined to be less than significant, either directly or cumulatively, in the preparation of the Initial Study, Draft EIR, and Final EIR.

4.1 AESTHETICS – DIRECT IMPACTS, CUMULATIVE IMPACTS

The proposed project site is located within the U.S. Forest Service, Angeles National Forest, and the City of Arcadia. The Santa Anita Reservoir, the streamside access road, and the Headworks are located in the Angeles National Forest north of the City of Arcadia boundary. The Wilderness Park and SPS areas, and are all located south of the reservoir in the City of Arcadia. Public views of the project site are available from the areas of the Angeles National Forest, the Wilderness Park, and City of Monrovia open space to the east. Portions of the project site would also be visible from private properties along the western edge of the DB. The short-term aesthetic impacts during construction would be minimal, involving the conveyor belt and movement of construction equipment. The views from public vantage points adjacent to the project site would remain similar to existing conditions and would not change in the short-term. Upon completion of the project, the approximately 13-acre extension of the Middle SPS would be visible from some adjacent residences; however, no scenic vistas would be affected. Therefore, the proposed project would not have an adverse effect on a scenic vista or scenic resource (Initial Study, p. 17).

There are no designated state scenic highways near the project site; the nearest designated state scenic highway is the Angeles Crest Highway (State Route 2), located approximately six miles north of the project site in the San Gabriel Mountains. The City of Arcadia General Plan does not identify the project site or its surroundings as a scenic resource. Therefore, adverse impacts related to scenic highways would not occur (Initial Study, p. 17).

The proposed project would not degrade the existing visual character or quality of the site and its surroundings. At the completion of the proposed project, the visual character of the Middle and Lower SPS would not be substantially degraded. The overall visual character of the project site would remain the similar to the existing condition. Because this area has been historically used by LACDPW for flood control purposes, including debris removal and sediment placement, the project site has been visually modified from its natural state, such as the adjacent open space to the east and the Angeles National Forest to the north of the reservoir. Therefore, the overall project impact on the visual character of the site and surroundings would be less than significant (Final EIR, p. 3.1-10).

The proposed project would not develop or require any buildings with lighting. All construction activity would occur during the daytime. Thus, the proposed project would not create a source of substantial light or glare above the existing conditions (Initial Study, p. 18).

The proposed 13-acre middle SPS area would extend to an ultimate height up to about 60 feet above the existing ground surface. This SPS area would extend southward from the existing upper SPS area and would be expected to cast similar shade and shadow patterns as the current SPS property and would not substantially affect daytime views (Initial Study, p. 18).

No projects are located within a one- to two-block radius of the project site which would create a cumulative aesthetic impact. Any project located at a greater distance than one or two blocks would not have a view of the proposed project site. Three of the six projects located within one-mile from the project area are residential developments that are consistent with the types of uses within their respective area and, therefore, are not anticipated to have the potential to combine with the proposed project to create a cumulative aesthetic impact. The remaining three projects, a 15,000 square-foot Walgreen's Drug Store, a 9,400 square-foot general office building, and a 6,600 square-foot Medical Office respectively, would also be consistent with the existing use of the area and would not be expected to result in a cumulatively considerable aesthetic impacts when considered collectively, including the project. Therefore, no visual impacts are anticipated (Final EIR, p. 4-9).

4.2 AGRICULTURE RESOURCES – DIRECT IMPACTS, CUMULATIVE IMPACTS

The project site is designated as Public Facilities & Grounds by the City of Arcadia and no agricultural activities presently occur on-site.[1] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance and there are no farmlands in the immediate project area. There are no Williamson Act contracts applicable to the project site.[2] Thus, the proposed project would not convert farmland to non-agricultural uses. No impacts would occur (Initial Study, p. 19).

4.3 AIR QUALITY - COMPLIANCE WITH REGIONAL PLANS, SENSITIVE RECEPTORS, CUMULATIVE IMPACTS

The proposed project would not conflict with or obstruct implementation of an applicable air quality management plan, and impacts related to objectionable odors would be less than significant (Final EIR, p. 3.2-13).

The proposed project would not result in a cumulatively considerable net increase of criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. The proposed project is in the South Coast Air Basin, which is currently designated non-attainment for federal and state particulate matter (PM_{10}, $PM_{2.5}$) and ozone (O_3) standards. The proposed project would not result in long-term emissions from operation of the project since there will be no

[1] City of Arcadia. *General Plan Land Use Map*. website http://www.ci.arcadia.ca.us/docs/ch2_-_community_development.pdf, accessed March 27, 2007.

[2] California Department of Conservation. *Farmland Mapping and Monitoring Program*. website http://www.consrv.ca.gov/DLRP/fmmp/overview/survey_area_map.htm, accessed January 22, 2007.

emissions after construction is complete. However, the proposed project, in conjunction with other cumulative projects in the area, would generate short-term air pollutant emissions from construction. With incorporation of measures required by SCAQMD's Rule 403 fugitive dust during construction, which includes PM_{10} and $PM_{2.5}$,would reduce PM emissions below the threshold of significance. With incorporation of the proposed mitigation measure, short-term construction emissions would not exceed the NO_X threshold. Because of the reduced magnitude and short-term duration of construction activities, the cumulative effect of these emissions would not be considerable and would be less than significant (Final EIR, p. 3.2-13 – 3.2-14).

The proposed project would not result in exposure of sensitive receptors to substantial pollutant concentrations. Construction of the proposed project and associated dam and SPS infrastructure would result in short-term diesel exhaust emissions from on-site heavy-duty equipment. Construction of the proposed project would result in the generation of diesel PM emissions from the use of off-road diesel equipment required for site clearing and grading; soil excavation and conveyance; and other construction activities; and from on-road diesel equipment used to bring materials to and from the project site. Since the duration of proposed construction activities near any sensitive receptor is less than two years, the exposure would be less than the 70-year total exposure period used for health risk calculation. Therefore, diesel PM generated by project construction is not expected to create conditions where the probability is greater than 10 in 1 million of contracting cancer for the Maximally Exposed Individual or to generate ground-level concentrations of noncarcinogenic TACs that exceed a Hazard Index greater than 1 for the Maximally Exposed Individual. Therefore, the potential for the proposed project to expose sensitive receptors to substantial pollutant concentrations would be less than significant (Final EIR, p. 3.2-17 – 3.2-18).

The proposed project, in conjunction with other cumulative projects in the area, would generate short-term air pollutant emissions from construction. No long-term emissions would result from operation of the project. Each of the related projects would have construction emissions and would generate additional vehicle trips in the project vicinity, contributing to existing air quality violations. All projects would be required to comply with the SCAQMD's air pollution control measures and rules. Implementation of these measures would reduce air emissions; however, cumulative air quality impacts related to pollutant emissions from construction of the project and other cumulative projects in the area would contribute to air quality pollution within the cities of Arcadia, Monrovia, and Sierra Madre. Given the location of these projects and their small size (the largest being 15,000 square feet), significant cumulative air quality impact are not anticipated. Therefore, operation of the project would not contribute to cumulative air quality impacts (Final EIR, p. 4-9).

4.4 BIOLOGICAL RESOURCES – HABITAT CONSERVATION PLAN, WILDLIFE MIGRATION, CUMULATIVE IMPACTS

Implementation of the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plans (HCP), Natural Community Conservation Plan (NCCP), or other approved local,

regional, or state HCP as the project area is not located within an adopted HCP, NCCP, or other approved local, regional, or state HCP. Additionally, the project site is not within a Significant Ecological Area (SEA). As such, no impacts would occur (Initial Study, p. 22).

The proposed project would impact approximately 0.3 acre of coastal sage scrub in the Middle SPS and 0.4 acre in the Lower SPS. However, due to the extremely degraded condition, poor habitat value, and small size of these areas, impacts to this community within the project are considered less than significant (Final EIR, p. 3.3-21).

The proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. The project area is predominantly open for wildlife movement and habitat connectivity. Developed areas to the south are largely intact. Aside from the Middle and Lower SPS sites, the project area would remain in its current condition upon completion of the project. As such, no impacts would occur (Final EIR, p. 3.3-22).

The project site is situated in an area that is owned and operated by the LACDPW that is surrounded by open space to the east and the Angeles National Forest to the north. The flood control facilities that make up the project site include open areas, SPS sites, access roads, and vegetated areas that are a mix of native and non-native vegetation. The one-mile cumulative project radius adequately captures the past, present, and probable future projects that would potentially contribute to cumulative biological resource impacts. Related projects are unlikely to result in significant impacts to biological resources due to the types of projects and the primarily developed uses that surround the related projects. Impacts to vegetation communities, including oak trees would be mitigated to less than significant levels and no impacts to regionally significant resources would occur. Therefore, no cumulative biological resource impacts would occur (Final EIR, p. 4-12).

4.5 CULTURAL RESOURCES – PALEONTOLOGICAL RESOURCES, HISTORIC RESOURCE, CUMULATIVE IMPACTS

The proposed project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. The project does not involve any excavation, aside from the sediment behind the dam, which is all recently eroded material. Therefore, the impact to paleontological resources would be a less than significant (Final EIR, p. 3.4-18).

Construction of the proposed project would not cause a substantial adverse change in the significance of a historical resource. Six historic-era buildings and structures within the area of potential effect were identified during the historic architectural survey. The six identified buildings and structures were recorded as part of the Santa Anita Dam Complex, on Department of Parks and Recreation (DPR) forms, and will be assigned Primary numbers by the State Office of Historic Preservation. The only alterations or modifications to any of the buildings and structures that were evaluated involve the proposed riser

modifications at the dam. The new riser and relocated trash rack would be located underwater on the upstream face of the dam. The resources that were evaluated, including the Santa Anita Dam, are not considered eligible for California Register of Historical Resources listing. Because the buildings and structures associated with the Santa Anita Dam and Complex are not eligible, no significant impacts to historical resources are anticipated (Final EIR, p. 3.4-18 – 3.4-19).

The one-mile cumulative project radius adequately captures the past, present, and probable future projects that would potentially contribute to cumulative cultural resource impacts. The proposed project, in conjunction with other cumulative projects in the area, could result in the disturbance of archaeological and/or historic resources in the area. However, as with the proposed project, each cumulative project would be responsible for implementing the necessary measures to protect any existing cultural resources in the area. For example, as discussed in Chapter 3.4, mitigation measures are provided for the proposed project in the event that buried cultural resources are encountered during construction. The cumulative projects are all located in existing developed areas and the likelihood of encountering archeological resources is low compared to the proposed project. Therefore, no significant cumulative impacts are anticipated to occur on these resources (Final EIR, p. 4-13).

4.6 GEOLOGY AND SOILS – DIRECT IMPACTS, CUMULATIVE IMPACTS

The project site is located in a seismically active region. The project site is not located within a fault rupture zone or within a currently established Alquist-Priolo Earthquake Fault Zone.[3] There are no active faults that traverse the project site; however, the Raymond fault is a designated Alquist-Priolo Earthquake Fault Zones that lies immediately south of the project site and several potentially active faults are located in the project vicinity: Verdugo, Hollywood, Whittier, and Elysian Park fault zones. Although the potential for surface rupture at the site is low, the site could be subject to strong ground shaking in the event of an earthquake. Although no habitable structures are proposed, the project would result in a new 5-acre landfill in the middle SPS area. Therefore, the proposed project has been determined to have less than significant impacts associated with the rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (Initial Study, p. 24).

The proposed project site would potentially experience strong seismic ground shaking during seismic events on regional faults within the vicinity. The proposed project is located within a seismically active region and has the potential to be subjected to ground shaking hazards associated with earthquake events on active faults throughout the region, including the San Andreas, Sierra Madre, Raymond, and San Gabriel fault zones. The project would not affect any habitable structures and no new buildings are proposed. Accordingly, the proposed project would not result in a significant adverse impact by exposing

[3] California Geological Survey. *Special Study Zones (Alquist-Priolo Map), Mt. Wilson Quadrangle*. January 1, 1977.

people or structures to major seismic hazards beyond what is considered normal for the southern California region. Therefore, impacts related to seismic ground shaking would be less than significant for the proposed project (Final EIR, p. 3.5-10).

The Middle and Lower SPS areas of the project site are located in a liquefaction hazard zone. Liquefaction and related lateral spreading impacts would occur if loose, unconsolidated sediment in the SPS site was subjected to seismic shaking. However, sediment would be properly placed and compacted in accordance with applicable LACDPW regulations and procedures. Additionally, if subsidence were to occur in the underlying soil, no habitable structures would be constructed and the project would not be expected to expose people to risk associated with liquefaction or lateral spreading. Therefore, impacts related to soil and ground stability would be less than significant for the proposed project (Final EIR, p. 3.5-10 and 3.5-12).

The project would install a drainage system, preventing the addition of excessive water to the SPS sites. Additionally, no structures are proposed which would place excessive loading on the sediment. Because the sediment would not experience excessive loading or intrusion of water, and the sediment would be properly placed and compacted within the SPS sites, the proposed project would not be expected to result in subsidence or collapse. Additionally, per LACDPW standards, the sediment would be placed in horizontal layers and would ultimately result in a slope no steeper than 2:1 horizontal to vertical ratio, the proposed project would not be expected to result in on- or off-site landslides. Therefore, impacts related to landslides would be less than significant (Final EIR, p. 3.5-12).

Loose sediment exposed during excavation and grading activities would potentially result in erosion from exposure to wind and rain. The proposed project would excavate approximately 500,000 cubic yards of sediment from Santa Anita Reservoir and deposit it first at the Lower SPS and the later at the proposed 13-acre Middle SPS, which would be graded as part of the project. Disturbed sediments are more susceptible to erosion; however, excavation, grading, and sediment placement activities would be in accordance with LACDPW regulations for SPS sites, which establish protocols for proper grading and placement of sediment at SPS sites. Additionally, the contractor would be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) and a Wet Weather Erosion Control Plan (WWECP) in accordance with the National Pollution Discharge Elimination System (NPDES) Permit for construction activities disturbing more than one acre of land. With the implementation of these requirements, construction-related erosion impacts would be less than significant for the proposed project. To prevent future erosion impacts following construction of the proposed project, the placement of sediment within the SPS sites would be undertaken in accordance with LACDPW regulations for SPS sites. The sediment would be properly placed, graded, compacted, and surface drainage structures would be installed to direct stormwater runoff around the fill area. As such, operation-related impacts to erosion would be less than significant for the proposed project (Final EIR, p. 3.5-9).

Expansive soils are soils that swell when they absorb water and shrink as they dry. The hazard associated with expansive soils is that structural damage may occur when buildings are placed on these soils. Since

no buildings or other habitable structures are proposed and the SPS would be required to comply with County design requirements and seismic safety standards, no impacts related to expensive soils are anticipated (Initial Study, p. 25).

The proposed project does not include the construction of any buildings or septic system. Therefore, no impacts associated with use of a septic system would occur (Initial Study, p. 26).

The one-mile cumulative project radius adequately captures the past, present, and probable future projects that would potentially contribute to cumulative geologic impacts since construction activities would be confined to the proposed project site. The project would not contribute to long-term cumulative impacts as no change in the use of the site would occur. Short-term impacts would be limited to the immediate project area. The project would not contribute to cumulative geology and soils impacts outside of the one-mile radius. The proposed project would not result in the exposure of new structures and people to seismic hazards. All new structures for related projects would incorporate the required seismic safety standards to reduce impacts associated with seismic hazards to less than significant levels. Therefore, no cumulative geologic impacts would occur (Final EIR, p. 4-13).

4.7 HAZARDS AND HAZARDOUS MATERIALS – DIRECT IMPACTS, CUMULATIVE IMPACTS

Construction of the proposed project would not require extensive or on-going use of acutely hazardous materials or substances. Construction activities would be short-term (up to two years), and would involve the limited transport, storage, use, or disposal of hazardous materials. Some examples of hazardous materials handling include fueling and servicing construction equipment on-site, and the transport of fuels, lubricating fluids, and solvents. These types of materials, however, are not acutely hazardous, and all storage, handling, and disposal of these materials are regulated by the California Department of Toxic Substances Control (DTSC), U.S. Environmental Protection Agency (EPA), the Occupational Safety & Health Administration (OSHA), the Los Angeles County Fire Department, and the Los Angeles County Health Department. The proposed project mainly includes the conveyance and transport of sediment that currently exists on the project site. Adherence to the regulations, set forth by County, state, and federal agencies, would reduce the potential for hazardous materials impacts to a less than significant level and would not pose a safety hazard to sensitive receptors, including Highland Oaks Elementary School and the Foothill Middle School (Initial Study, p. 27).

The project site is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.[4,5,6] The project site is open space and has not historically

[4] Department of Toxic Substances Control. *DTSC's Hazardous Waste and Substances Site List – Site Cleanup (Cortese List)*. website http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm, accessed January 24, 2007.
[5] EPA. *CERCLIS Hazardous Waste Sites*. website http://www.epa.gov/superfund/sites/cursites/index.htm, accessed January 24, 2007.
[6] EPA. *National Priorities List*. website http://www.epa.gov/superfund/sites/npl/index.htm, accessed January 24, 2007.

been used for industrial purposes. Accordingly, no impacts related to such sites would occur (Initial Study, p. 27).

The project site is not located within a two-mile radius of any public airport or private airstrip. The closest airport to the project site is the El Monte Airport, approximately 5 miles to south. As such, the proposed project would not result in an airplane safety hazard for people residing or working in the project area. Therefore, no impacts would occur (Initial Study, p. 27).

The proposed project would not interfere with any current emergency response plans or emergency evacuation plans for local, state, or federal agencies. Access to all local roads would be maintained during construction. Equipment staging would occur off of public roads and no detours or road closures are anticipated. Sediment conveyance would be limited to dirt access roads and fire roads; the County has worked with the Cities of Arcadia and Monrovia's fire departments and the Los Angeles County fire department to meet all the requirements to use these roads and ensure fire safety. Any emergency procedures required by County, state, and federal guidelines would be implemented during construction of the proposed project. Therefore, no impacts would occur (Initial Study, p. 27).

The project site is located in an open space area adjacent to the Angeles National Forest and the City of Monrovia open space. The potential for wildland fire is high due to the proximity of the open space and national forest that includes chaparral, brush, and trees that could be highly flammable during fire season. Wildfire avoidance measures will be coordinated with the U.S. Forest Service Fire Division and the City of Arcadia Fire Department prior to construction. Therefore, impacts related to wildland fires would be less than significant (Initial Study, p. 28).

4.8 HYDROLOGY/WATER QUALITY – DIRECT IMPACTS, CUMULATIVE IMPACTS

During sediment excavation, conveyance, and placement, adherence to all applicable water quality requirements would be required. Because construction activities would disturb greater than one acre of land, the project would be required to comply with the Regional Water Quality Control Board's (RWQCB) National Pollution Discharge Elimination System (NPDES) storm water requirements. Implementation of these requirements, including preparation of a Storm Water Pollution Prevention Plan (SWPPP), would address potential water quality impacts during construction. Operation of the proposed project would not violate any water quality standards or waste discharge requirements, or exceed the capacity of the storm drain system because no operational activities are anticipated. Therefore, long-term impacts would be less than significant (Initial Study, p. 29).

The proposed project would not increase the impervious surface area on the project site and would not require the use of any groundwater supplies, nor would it significantly increase polluted runoff originating from the project site. Therefore, no impacts would occur (Initial Study, p. 29).

The proposed project site would alter the existing drainage pattern of the site, which would potentially result in substantial erosion or siltation. Construction of the proposed project would result in temporary alterations of surface drainage characteristics at the project site during clearing, grading, and excavation activities. The proposed project would implement applicable BMPs for sediment control and erosion prevention in accordance with the NPDES permit requirements for construction. In the event construction of the proposed project requires the disturbance of soil during the rainy season as defined as October 15 through April 15, a Wet Weather Erosion Control Plan (WWECP) would be developed, which would include measures to prevent on-site erosion that the contractor would be required to implement. Excavation, grading, and sediment placement activities would also be undertaken in accordance with LACDPW regulations for SPS sites, which establishes protocols for proper design of slopes and temporary sediment collecting structures. Adherence to these regulations and site design requirements would be enforced through plan check reviews and site inspection following the issuance of grading permits. Therefore, impacts related to on-site erosion would be less than significant (Final EIR, p. 3.6-6).

Operation of the proposed project would result in permanent alterations of surface drainage characteristics of the site, as approximately 500,000 cubic yards of sediment would be placed within the Lower SPS and the proposed 13-acre Middle SPS. Placement of the sediment would be undertaken in accordance with LADPW regulations for SPS sites. Proper placement and compaction of sediment, combined with the installation of surface drainage structures to direct stormwater around the fill area, would prevent on-site erosion of sediment. Additionally, the surface of the Lower SPS would be revegetated or sown with a seed mixture to further prevent erosion impacts. As such, impacts related to on-site erosion would be less than significant during operation of the proposed project. The project would not result in an increase in impervious surface area and no increase in the amount of surface runoff would increase. Therefore, impacts related to off-site erosion would be less than significant (Final EIR, p. 3.6-7).

The proposed project does not include construction of any housing or other structures a FEMA 100-year flood hazard area. Therefore, no flood-related impact will result (Initial Study, p. 30).

Due to the distance of the project site to the Pacific Ocean (approximately 30 miles west of the project site) and the numerous structures between the project site and the ocean, there is virtually no risk of on-site hazard due to tsunamis (seismically-induced waves). Currently, the Santa Anita Reservoir has the potential to seiche; however, during the construction period, water will be drawn down to remove the sediment, eliminating the potential for seiche during sediment excavation. Completion of the proposed project will not increase the reservoir's potential to seiche. Mudflows could occur during construction of the project due to the topography the surrounding the project site. However, the reservoir and debris basin would continue to provide debris and mudflow protection downstream. Therefore, impacts from

inundation of a tsunami, seiche, or mudflow would be less than significant (Initial Study, p. 30).

The one-mile cumulative project radius adequately captures the past, present, and probable future projects that would potentially contribute to cumulative hydrology and water quality impacts. Short-term impacts would be limited to the immediate project area, since construction activities would be confined to the project site. Specifically, impacts related to erosion would be confined to the proposed SPS areas. The proposed project would not contribute to long-term cumulative impacts because the project does not involve any operational components. The new SPS would be designed in accordance with the LACDPW guidelines for avoiding erosion during and after construction. The proposed project site would function in a manner similar to the existing conditions at the conclusion of construction. No substantial changes in absorption rates, surface and groundwater quality, groundwater flow and the quantity of groundwater are anticipated to occur as a result of implementation of the proposed project and other cumulative projects. The project would improve flood control conditions in the project area, thereby improving the existing hydrologic conditions in the project area. Related projects would be required to comply with water quality and waste discharge requirements to ensure that no impacts to groundwater or surface water quality would occur. No cumulative hydrology impacts would occur (Final EIR, p. 4-13).

4.9 LAND USE AND PLANNING – DIRECT IMPACTS, CUMULATIVE IMPACTS

The proposed project would occur within the Angeles National Forest, the Arcadia Wilderness Park, and other City of Arcadia land. There are no residential uses within the project site and no roadways would be closed as a result of the project. No long-term activities would occur as a result of the project and no homes would be removed. Accordingly, no communities would be physically divided by the proposed project. Therefore, no impacts would occur (Initial Study, p. 30).

The project site is designated as Public Facilities & Grounds in the City of Arcadia General Plan. The proposed sediment removal and placement in the SPS would be consistent with the adopted use in the General Plan and with the current use of the reservoir, tunnel, access roads, and sediment placement site. Therefore, the project would not conflict with the applicable land use plan. Therefore, no impacts would occur (Initial Study, p. 30).

The project site is not located within a County Significant Ecological Area (SEA), habitat conservation plan, or natural community conservation plan. Therefore, no impacts would occur (Initial Study, p. 31).

4.10 MINERAL RESOURCES– DIRECT IMPACTS, CUMULATIVE IMPACTS

There are no known mineral deposits of economic importance underlying the project site.[7] As stated in the Arcadia General Plan, the only area in the City of Arcadia available for mining activity is the Livingston-Graham sand and gravel extraction site. This site is located in the southerly portion of Arcadia, north of Clark Street.[8] While the California Department of Mines and Geology has designated the project area as an area for significant mineral resources, the flood control wash, the spreading basin, and other areas managed by Public Works are required for flood control purposes, and are not available for mineral extraction. Therefore, no impacts would occur (Initial Study, p. 31).

Sediment from the reservoir would be excavated and transported to a placement site less than two miles to the south. Construction activities during the proposed project would not result in the loss of availability of any known mineral resource. Therefore, no impacts would occur (Initial Study, p. 31).

4.11 NOISE – EXCESSIVE GROUNDBOURNE VIBRATIONS, OPERATIONAL NOISE, AIRCRAFT NOISE, CUMULATIVE NOISE

The proposed project would not generate or expose people to excessive groundborne vibrations. Construction operations would result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. The construction activities that typically generate the highest levels of vibration are blasting and impact pile driving, which are not required for this project. Damage to structures occurs when vibration levels range from 2 to 6 inches per second (in/sec) ppv. Caltrans uses a vibration criterion of 0.2 in/sec ppv for its construction projects, except for pile driving and blasting. Sediment transport by conveyor belt and placement at the SPS areas by heavy equipment would occur within 200 to 300 feet to residences, and would produce low-level vibrations at the source. The maximum vibration generated at the work areas is anticipated to be in the range of 0.07 to 0.09 in/sec ppv at 25 feet for loaded trucks, which is below the Caltrans criterion. In addition, this vibration level would dissipate with distance at approximately 200 feet to the nearest residences. Therefore, a detailed vibration analysis is not required. As such, vibration from the project construction would not be a significant impact (Final EIR, 3.7-14 – 3.7-15).

No operational changes would occur as a result of the proposed project that would generate noise within the project area. Accordingly, no long-term operational noise impacts would occur and no noise-related mitigation measures would be required after construction activities are completed (Final EIR, p. 3.7-14).

[7] County of Los Angeles Department of Regional Planning. *County of Los Angeles General Plan Special Management Areas Map*. website http://planning.co.la.ca.us/doc/gp/gpMaps/08pdf_special_areas.pdf, accessed January 22, 2007.

[8] City of Arcadia. *Arcadia General Plan, Environmental Resources Element.* Adopted September 3, 1996.

There are no public airports or private airstrips in the project vicinity. The closest airport to the project site is the El Monte Airport, approximately 5 miles to south. Accordingly, the proposed project would not expose people residing or working in the project area to aircraft noise. There are no impacts associated with exposure to excessive noise levels from proximity to airports are not considered further (Initial Study p. 32).

The one-mile cumulative project radius adequately captures the past, present, and probable future projects that would potentially contribute to cumulative noise impacts. The project would not contribute to long-term cumulative impacts as the project would not result in changes to operational use of the site. Increased levels of traffic associated with cumulative development would result in increased noise on local roadways. As the proposed project would not generate traffic in operation, no cumulative operational impacts would occur. During construction, project impacts would be significant and unavoidable due to construction noise by construction equipment that would be used at the SPS areas. However, all of the six related projects are located more than 1,000 feet away from the project site. Accordingly, the proposed project, when considered cumulatively with related projects in the area, would not contribute to cumulative noise effects during construction (Final EIR, 4-14).

4.12 POPULATION AND HOUSING – DIRECT IMPACTS, CUMULATIVE IMPACTS

The proposed project site is currently used by Public Works for flood control and water conservation. There is no residential development on the project site that would be impacted by the proposed project. No housing units or persons would be displaced as a result of the proposed project, nor would the project necessitate the construction of housing elsewhere. Some short-term construction related jobs would be created by the project; however, these jobs would be filled by existing workers in the region. The project would not be expected to increase the demand for new housing or otherwise increase the local population. Therefore, no impacts would occur (Initial Study, p. 33).

4.13 PUBLIC SERVICES– FIRE PROTECTION, POLICE PROTECTION, SCHOOLS, PARKS, OTHER PUBLIC FACILITIES, CUMULATIVE IMPACTS

Fire protection in the project area is provided by the Arcadia Fire Department and the U.S. Forest Service. The Arcadia Fire Station that would respond to calls in the area of the project site Station 107, located at 79 West Orange Grove Avenue. Wildfire avoidance measures would be coordinated with the U.S. Forest Service Fire Division and the City of Arcadia Fire Department prior to construction. The proposed project would not interfere with any current emergency response plans or emergency evacuation plans for local, state, or federal agencies and access to all local roads would be maintained during construction. Any emergency procedures required by County, state, and federal guidelines would be implemented during construction of the proposed project. Operation of the proposed project would not require

additional fire protective services. Therefore, no impacts to fire protection services would occur as a result of implementation of the proposed project (Final EIR, p. 4-3).

The project area is served by the Arcadia Police Department located at 250 West Huntington Drive. The proposed project would not interfere with any current emergency response plans or emergency evacuation plans for local, state, or federal agencies and access to all local roads would be maintained during construction. Upon completion of the two 8-month construction periods, no changes to the operational use of the site would occur. Accordingly, no impacts to police protection, whether through an increase in the need for services or response times, would occur (Final EIR, p. 4-4).

The proposed project area is within the Arcadia Unified School District. The closest school to the site is the Highland Oaks Elementary School (10 Virginia Road), located approximately 0.3 mile to the west. Implementation of the proposed project would not generate additional students within the District, nor would it increase the demand for schools, as the project would not induce population growth. Additionally, construction activities would not require extensive or on-going use of acutely hazardous materials or substances and activities would be short-term and involve limited transport, storage, use, or disposal of hazardous materials. Therefore, no impacts to schools would occur as a result of implementation of the proposed project (Final EIR, p. 4-4).

There are five parks located within a one-mile radius of the proposed project: Highland Oaks Park, approximately 0.19 mile to the west; Eisenhower Memorial Park, approximately 0.58 mile south; Newcastle Park, approximately 0.87 mile southwest; Forest Avenue Park, approximately 0.73 mile southwest; and Sierra Vista Park, approximately 0.82 mile west. Additionally, the project area is located partially within the Angeles National Forest and the Arcadia Wilderness Park. Construction of the project would potentially result in a decrease in the number of visitors at the Wilderness Park due to intermittent construction noise; however, it is not anticipated that a significant number would avoid the park. The proposed project would not result in the construction of new residences or facilitate the development of residences, which would result in increased population. Therefore, the proposed project would not increase demand for neighborhood or regional parks or other recreational facilities. No change in the operational use of the project area, including the Wilderness Park or the Angeles National Forest would occur and therefore, impacts to parks would be less than significant (Final EIR, p. 4-4).

The nearest libraries to the project site are the Arcadia Public Library (20 West Duarte Road), located 1.9 miles south of the Lower SPS, the Sierra Madre Public Library (440 West Sierra Madre Boulevard), located approximately 2.1 miles west of the Lower SPS, and the temporary Monrovia Public Library (843 East Olive Avenue), approximately 2.3 miles southeast of the Lower SPS. Construction of the proposed project would not restrict access or prevent residents from using these libraries, nor would it increase use of these libraries. No changes in the operational use of the site would occur and the proposed project would not result in the need for additional library services; therefore, impacts to library services would not occur (Final EIR, p. 4-5).

4.14 RECREATION – DIRECT IMPACTS, CUMULATIVE IMPACTS

Because the proposed project would construct a new dam riser, remove sediment from the reservoir, place the sediment in the SPS areas, and would not result in the construction of new residences or facilitate the development of residences, the project would not result in increased population. Therefore, the proposed project would not increase demand for neighborhood or regional parks or other recreational facilities. The Wilderness Park would remain open during the construction period of April through December; however, the visitors of the park could choose to visit other nearby parks due to the construction activities and noise from the conveyor belt that would pass through the Wilderness Park's parking lot. It is not anticipated that a substantial number of visitors would visit another park due to the construction activities of the proposed project, because some visitors, such as school groups, come to the park to visit the Nature Center, which is a use that cannot be found in other nearby parks. Existing recreational facilities within the project vicinity would not be impacted during the construction periods of the proposed project, and would maintain service to current users. The proposed project would not increase use of existing park or recreation facilities, such that substantial physical deterioration of the facility would occur or be accelerated. Therefore, impacts to existing parks and recreation facilities would be less than significant (Final EIR, p. 3.8-3).

The proposed project does not include or require the construction of recreational facilities. The proposed project only includes construction activities that are necessary for the Santa Anita Dam riser modification and sediment excavation and placement. After the project is complete there would be no operational related activities outside of the normal maintenance of the LACDPW flood control facilities. Therefore, no impacts would occur (Final EIR, p. 3.8-2).

The proposed project would not include any long-term changes to the existing operations of the Wilderness Park. The short-term impact during construction would affect visitors and day campers to the park when the conveyor belt would pass through the Wilderness Park parking lot and extend south of the parking lot and west of the Nature Center following the access road to the Lower and Middle SPS area. The proposed project would impact the Day Camp during the two 8-month construction periods of April through December. Construction of the proposed project would potentially result in a significant impact to visitors walking throughout the Wilderness Park, including campers participating in Day Camp of the Wilderness Park. However, as a project design feature the construction contractor would be required to ensure that no sediment would fall over the Wilderness Park parking lot, by using netting, shielding, or other means. Thus, impacts related to recreation, in this case related to pedestrian safety, during construction would be less than significant (Final EIR, p. 3.8-3 – 3.8-4).

Additionally, the proposed project would not impact County Trail #7 – Santa Anita Wash Trail Extension, trails in the Wilderness Park, or trails in the Angeles National Forest. The proposed sediment removal and sediment placement activities would not impact any trails on- or off-site, only existing access roads would be used for the construction equipment. County Trail #7 – Santa Anita Wash Trail Extension is

not publicly accessible and is restricted by a locked gate, since the project site is currently being used for LACDPW flood control facilities. Because no publicly accessible trails would be affected by the project, impacts to trails would be less than significant (Final EIR, p. 3.8-4).

The one-mile cumulative project radius adequately captures the past, present, and probable future projects that would potentially contribute to cumulative recreation impacts since construction activities would be confined to the project site. The project would not contribute to long-term cumulative impacts as no changes in the operational use of the site would occur. Short-term impacts related to construction would be limited to the immediate project area. The project would not contribute to cumulative recreation impacts outside of the one-mile radius. The proposed project is within the boundaries of two parks: the Angeles National Forest; and the Arcadia Wilderness Park. All construction activities would occur within County property and would not extend to public parkland. All amenities would be available to park users during project construction and operation and the project would not affect the provision of recreational services in the area. Temporary indirect impacts to the Wilderness Park (i.e., increased dust and noise during construction) would occur as a result of the proposed project; however, these will be minor and none of the six related projects has the potential to result in similar impacts to the park due to their distances. Accordingly, impacts would not be cumulatively significant (Final EIR, p. 4-14).

4.15 TRANSPORTATION AND CIRCULATION – OPERATIONAL TRAFFIC, AIR TRAFFIC PATTERNS, EMERGENCY ACCESS, CUMULATIVE TRAFFIC

The proposed project would not result in an increase in traffic during construction that would create a substantial change in relation to the existing traffic load and capacity of the street system or cumulatively exceed any applicable level of service standards. Volumes on the roadways in the project vicinity are well below the upper-end values for daily volumes for both collector roadways and local/residential roadways. As impacts have not been defined on Santa Anita Avenue to the south of Elkins Avenue, any traffic impacts to the north would be unlikely. LOS E or F operations are not likely during the project construction period. Therefore, the proposed project would not create any significant impacts that would require capacity-based mitigation measures. These impacts would be temporary and would result in a less than significant impact. Additionally, there are no Congestion Management Plan (CMP) intersections north of the Foothill Freeway in the western San Gabriel Valley. Therefore, none of the project study intersections are part of the 164 CMP arterial monitoring locations or freeway system according to CMP guidelines and threshold of significance. Per CMP guidelines, the proposed project would not add more than the thresholds of 50 trips at any CMP arterial monitoring station during the a.m. or p.m. peak hour or add 150 or more trips to the freeway system. Therefore, no CMP intersection analysis is required (Final EIR, p. 3.9-8 - 3.9-9).

The closest airport to the project site is the El Monte Airport, approximately 5 miles to the south, and the Bob Hope Airport in Burbank, over 18 miles to the west. Due to distance from the project site to the

nearest commercial airport and the construction activities associated with the proposed project, no changes to air traffic patterns would occur. The proposed project would not alter the number of trips during the operational phase and, as such, would not conflict with the Congestion Management Plan (CMP) Traffic Impact Analysis Guidelines (Final EIR, p. 3.9-6).

The proposed project is not anticipated to result in inadequate emergency access. No street closures are proposed as part of the project. As part of the project, Public Works would coordinate with the City of Arcadia Fire Department and the U.S. Forest Service Fire Division to ensure emergency access is available to the project site and nearby residences at all times (Initial Study, p. 35). Additionally, the proposed project would not result in any permanent changes in existing roadway design or any uses which would be incompatible with area traffic. As such, upon completion of project construction, traffic conditions would be expected to return to current conditions and there would be no traffic impacts during the operational phase of the proposed project. No impacts to emergency access would occur as a result of the proposed project; therefore, the project would not conflict with any alternative transportation programs (Final EIR, p. 3.9-6).

The proposed project, in conjunction with other cumulative projects in the area, would not add traffic to local intersections within a one-mile radius of the project site. As discussed in Section 3.9 of the Final EIR, during construction, a limited number of construction vehicles would travel to the site, including worker commute trips and supply deliveries, resulting in approximately 154 trips per day. The six related projects located near the project site are single-family residential or small commercial developments, which would have little impact on traffic. These projects, in addition to the proposed project, would not result in a cumulative traffic impact (Final EIR, p. 4-15).

4.16 UTILITIES AND SERVICE SYSTEMS – DIRECT IMPACTS, CUMULATIVE IMPACTS

The proposed project only involves short-term construction related to the sediment removal and conveyance. The project would not involve any short- or long-term change to the current wastewater, stormwater drainage, or water supply. Therefore, the impact on utilities and service systems would be less than significant (Initial Study, p. 36).

Construction of the proposed project would not result in the generation of a substantial amount of solid waste. Solid waste would be limited to the riser modification component and any construction necessary for the tiered design of the proposed SPS. Solid waste could include material such as scrap lumber, concrete, other residual wastes, and garbage from the construction workers. Disposal and recycling of the construction debris would be required to comply with all federal, state, and local regulations, and no impacts would occur. Compliance with existing regulations would ensure a less than significant impact to area landfills (Initial Study, p. 36).

CHAPTER 5
LESS THAN SIGNIFICANT ENVIRONMENTAL IMPACTS WITH MITIGATION

The following Findings for project impacts refer to the significant environmental effects of the project for which mitigation measures have been identified in the Final EIR which will avoid or substantially lessen the significant environmental effects to below a level of significance.

5.1 AIR QUALITY – SHORT-TERM CONSTRUCTION EMISSIONS, CRITERIA POLLUTANTS

Significant Impact: **AIR-1** *Short-term construction emissions of the proposed project would exceed the SCAQMD emissions threshold for* NO_X *and would potentially contribute substantially to an existing or projected air quality violation.* As set forth in Section 3.2 of the Final EIR, operation of construction equipment would potentially result in short-term impacts exceeding SCAQMD emissions thresholds for NO_X, resulting in a significant impact. Mitigation would be required to reduce these impacts to a less than significant level.

Finding: Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR. The principal source of NO_X emissions would be from operating diesel-engine powered construction equipment (i.e. off-road equipment) during earth-moving activities. The most effective means of reducing NO_X emissions is by utilizing add-on equipment emission controls, cleaner fuels, or newer, lower emission emitting equipment. The proposed project would not require truck hauling to transport sediment from the reservoir to the proposed Lower and Middle SPS areas. Instead, the proposed project would use an electric conveyor belt system, which would reduce fugitive dust and diesel engine exhaust emissions. The conveyor belt would extend the entire length of the project, from the reservoir through an existing tunnel that connects the reservoir to an access road located below the dam on the east side of the streambed, continuing along the access road, past the Headworks, over the Wilderness Park parking lot (not obstructing traffic or emergency vehicles), south on the fire access roads, past the upper portion of the debris basin, and would terminate at the upper portion of the Lower SPS. Utilization of lower emitting equipment, such as an electric conveyor belt system, would reduce NO_X emissions. As a result, estimated project emissions for all construction activities would be reduced below their threshold levels during and after the maximum construction overlap (Final EIR, p. 2-8 and p.3.2-14 – 3.2-15). The following mitigation measures would reduce the significant effect of Impact AIR-1 to a less than significant level.

AIR-A The construction contractor shall provide a NOx reduction plan, for LACDPW approval, demonstrating that construction equipment shall not exceed the 100 lbs/day NOx threshold

for the duration of the project. The plan shall provide a detailed equipment list for the overlap and non-overlap construction periods using the construction equipment emissions from URBEMIS 2007, which will be provided by LACDPW, or an equivalent verifiable source approved by CARB or SCAQMD. Measures to reduce emissions may include the use of oxygenated catalysts or Tier 2 or Tier 3 engines.

Rationale/Supporting Explanation: The proposed project is in the South Coast Air Basin, which is currently designated non-attainment for federal and state particulate matter (PM_{10}, $PM_{2.5}$) and ozone (O_3) standards. The principal sources of pollutant emissions during construction would be fugitive dust, which includes PM_{10} and $PM_{2.5}$, and construction equipment engine exhaust, a principal source of NO_X emissions. NO_X is an ozone precursor.

As stated above, the principal source of NO_X emissions would be from operating diesel-engine powered construction equipment (i.e. off-road equipment) during earth-moving activities. The most effective means of reducing NO_X emissions is by utilizing add-on equipment emission controls, cleaner fuels, or newer, lower emission emitting equipment. However, application of these methods to all off- and on-road diesel engine powered equipment on a large project, such as the proposed project, may not be feasible due to the cost and availability of these materials. Low- NO_X fuel is not available in the project area as it was previously (SCAQMD 2007a), and therefore, is not a feasible measure for the project. Retrofitting construction equipment with oxygenated catalysts is feasible to the extent it is cost-effective (Final EIR, p. 3.2-15).

Air quality impacts associated with the proposed project are related to the type and quantity of emissions from relatively short-term construction operations; there would be no operational emissions because the project would not result in an operational phase. Without mitigation, the maximum daily project emissions for NO_X, $PM_{10,}$ and $PM_{2.5}$ would exceed their maximum daily emission thresholds for sediment movement, and the worst-case condition in June to July, when the maximum overlap of activities and emissions would occur (Final EIR, p. 3.2-14).

Mitigation measure AIR-A would reduce project NO_X emissions below the SCAQMD/CEQA significance threshold for NO_X. Accordingly, project NO_X emissions would not be significant. Because the proposed project would implement applicable construction procedures approved by SCAQMD, including Rule 403, Fugitive Dust, which specifies dust control requirements, PM emissions during construction would be less than significant (Final EIR, p. 3.2-19).

Significant Impact: **AIR-2** *The proposed project would result in a cumulatively considerable net increase of criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.* As set forth in Section 3.2 of the Final EIR, the project would potentially result in a cumulatively considerable net increase of criteria pollutant resulting from short-term

construction emissions, resulting in a significant impact. Mitigation would be required to reduce these impacts to a less than significant level.

Finding: Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR. Specifically, Mitigation Measure AIR-A (see above) would reduce the significant effect of Impact AIR-2 to a less than significant level.

Rationale/Supporting Explanation: The proposed project is located in the SCAB, which is designated non-attainment for state PM_{10}, $PM_{2.5}$, and O_3 standards, and federal PM_{10}, $PM_{2.5}$, and O_3 standards. Short-term construction emissions with the mitigation proposed would not exceed the NO_X threshold and, therefore, would be not be considered a significant cumulative impact. Emissions of VOC, PM_{10}, and $PM_{2.5}$ with the mitigation proposed would be less than half of the SCAQMD thresholds. Because of their reduced magnitude and short-term duration, the cumulative effect of these emissions would not be considerable and would be less than significant (Final EIR, p. 3.2-15 – 3.2-16).

5.2 BIOLOGICAL RESOURCES – SENSITIVE SPECIES

Significant Impact: **BIO-1** *The proposed project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFG or USFWS.* As set forth in Section 3.3 of the Final EIR, the project would potentially impact sensitive plant species, resulting in a significant impact. Additionally, the proposed project would potentially disturb nesting birds and other sensitive reptile species during construction. Mitigation would be required to reduce these impacts to a less than significant level.

Finding: Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR. Mitigation measures BIO-A through BIO-C would reduce the significant effect of Impact BIO-1 to a less than significant level. Specifically, mitigation measure BIO-B has been provided to require nesting bird surveys prior to the start of project construction in order to minimize impacts to nesting birds (Final EIR, p. 3.2-19 – 3.2-20)

BIO-A Prior to commencement of project construction, a rare plant survey shall be completed within the Santa Anita Reservoir, the Middle SPS and anywhere else project ground-disturbing activities would affect vegetated areas to determine the presence or absence of sensitive plant species with potential to occur within this project site. Surveys within the Middle SPS will focus on Plummer's mariposa lily, slender-horned spineflower, mesa horkelia, and Robinson's pepper-grass where suitable habitat for these species occurs. However, all sensitive plant species that have potential to occur in the project area based on the presence of suitable habitat or the known presence of the species in neighboring

areas will be searched for during their blooming periods to confirm presence or absence. In addition, all other biological requirements of the U.S. Forest Service shall be implemented to minimize impacts to federal species. Surveys shall be conducted in accordance with the following CNPS guidelines:

• A qualified biologist shall conduct field surveys in a manner that will locate any rare, threatened or endangered species that may be present. The Rare Plant survey shall be conducted using systematic field techniques in all habitats of the site to ensure thorough coverage of potential impact areas.

• If a state, U.S. Forest Service, or federally listed plant species is detected (e.g., slender-horned spineflower or San Diego ambrosia), then consultation with USFWS and/or, U.S. Forest Service, and/or CDFG must occur to document the finding and determine appropriate mitigation requirements to ensure that impacts to the listed plant species would be less than significant.

• Rare plants listed as CNPS List 1B, protected by the California Endangered Species Act, shall be flagged and avoided. If avoidance is not possible, the project proponents shall notify the CDFG 10 days prior to commencement of project activities to allow for salvage of the plants.

Rationale/Supporting Explanation: No sensitive plant species were detected in the project site during focused botanical surveys during the appropriate survey periods. Due to unfavorably dry weather conditions, it was determined that many plants may not have been detectable during the 2007 surveys. Per mitigation measure BIO-A of the Draft EIR, additional surveys for sensitive plant species were conducted in April and May of 2008 (see Appendix C of the Final EIR). Because no sensitive plant species were detected during focused surveys in 2007 or 2008, no sensitive plant species are expected to occur within the project area and impacts to sensitive plant species are not anticipated. However, per comments from CDFG and U.S. Forest service, mitigation measure BIO-A would be implemented prior to project construction (Final EIR, 3.3-20).

BIO-B Should tree and vegetation removal in the Santa Anita Reservoir or Middle SPS or commencement of other construction activities in the project site occur during the breeding season for migratory non-game native bird species (February 1 - August 31), weekly bird surveys shall be performed to detect any protected native birds in the trees to be removed and other suitable nesting habitat within 300 feet of the construction work area (500 feet for raptors). The surveys shall be conducted 30 days prior to the disturbance of suitable nesting habitat by a qualified biologist with experience in conducting nesting bird surveys. The surveys shall continue on a weekly basis with the last survey being conducted no more than 3 days prior to the initiation of clearance/construction work. If a protected native bird is found, LACDPW shall halt all

clearance/construction disturbance activities in suitable nesting habitat or within 300 feet of nesting habitat (within 500 feet for raptor nesting habitat) until August 31 or continue the surveys in order to locate any nests. If an active nest is located during the survey, clearing and construction with 300 feet of the nest (within 500 feet for raptor nests) shall be postponed until the nest is naturally vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest should be established in the field with flagging and stakes or construction fencing. Construction personnel shall be instructed on the sensitivity of the area. The results of this measure shall be recorded to document compliance with applicable State and Federal laws pertaining to the protection of native birds.

A pre-construction survey for roosting bats shall be performed by a qualified biologist within 30 days prior to removal of trees or structures on the site. If no active roosts are found, then no further action will be warranted. If either a maternity roost or hibernacula (structures used by bats for hibernation) is present, the following measures shall be implemented:

• If an active maternity roost is located and the project cannot be redesigned to avoid removal of the occupied tree or structure, demolition shall commence before maternity colonies form (i.e., prior to March 1) or after young are volant (flying) (i.e., after July 31). Disturbance-free buffer zones as determined by a qualified biologist in consultation with CDFG shall be observed during the maternity roost season (March 1 - July 31).

• If a non-breeding bat hibernacula is found in a structure or tree scheduled for removal, the individuals shall be safely evicted, under the direction of a qualified biologist (as determined by a Memorandum of Understanding with CDFG), by opening the roosting area to allow airflow through the cavity. Demolition shall then follow at least one night after initial disturbance for airflow. This action shall allow bats to leave during darkness, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight. Structures or trees with roosts that need to be removed will first be disturbed at dusk, just prior to removal that same evening, to allow bats to escape during the darker hours.

• If special-status bats are found roosting within trees or structures onsite that require removal, appropriate replacement roosts shall be created at a suitable location onsite or offsite in coordination with a qualified biologist, the CDFG, and the LACDPW.

BIO-C In order to reduce impacts to sensitive reptiles potentially occurring in the Santa Anita Reservoir, the Middle SPS, and along the access road adjacent to the debris basin LACDPW shall implement the following measures:

• Grading and other habitat disturbing activities shall be limited to the footprint of the SPS areas.

• To prevent injury or damage to coast (San Diego) horned lizard, two-striped garter snake, and other reptiles, an animal exclusion fence shall be placed along the boundary of the Middle SPS area and along the portion of the access road adjacent to the debris basin. The fence shall be a minimum of 4 feet in height with ¼ inch mesh hardware cloth attached to wooden posts or studded "T" steel posts. Fence material should also be buried a minimum of 12 inches below the ground surface.

• Prior to construction, a qualified biologist shall conduct a pre-construction survey for the coast (San Diego) horned lizard and two-striped garter snake and other reptiles within the exclusion fenced area. If any reptiles are found within the exclusion fenced area, the biologist shall safely relocate these species to a suitable area outside of the fenced area.

• Drift nets or other exclusionary fencing shall be placed around excavations to reduce the potential for individuals entering excavated areas. If excavations with the potential for entrapment are to remain open for more than 12 hours they must include some means for small mammals, reptiles, and amphibians to escape. This can be accomplished by placement of a ramp that reasonably allows trapped individuals to crawl or walk out of the excavation. Before an excavation is backfilled, it must be checked to ensure that there are no live individuals inside. Backfilling shall not occur until the excavation is clear of all live individuals.

• Personnel involved in project implementation shall receive a briefing from a qualified biologist to identify and describe sensitive resources that may be encountered in the project area. Wildlife of any kind that is encountered during the course of project implementation shall either be moved or provided the opportunity to vacate the site.

• Personnel shall be reminded that harassment, handling, or removal of wildlife from the project site shall not be permitted.

Rationale/Supporting Explanation: Tree and vegetation removal would occur in the Santa Anita Reservoir, Middle SPS, and Lower SPS and construction activities with potentially adverse noise levels would occur in the vicinity of other trees (e.g., the Southern Sycamore Alder Riparian Woodland adjacent to the access road), which would significantly affect nesting birds, if present. Disturbance of active nests would violate the MBTA and result in a significant impact requiring mitigation. To ensure compliance with the MBTA, mitigation measure BIO-B has been provided to require nesting bird surveys prior to the start of project construction. With implementation of this mitigation measure, impacts to nesting birds would be less than significant (Final EIR, p. 3.3-20).

The project site and areas immediately adjacent to the project site contain potential habitat for coast (San Diego) horned lizard and two-striped garter snake. Both the coast (San Diego) horned lizard and the two-striped garter snake are CDFG Species of Special Concern. No sensitive reptile species were observed within the project vicinity during focused surveys; however, this does not confirm their absence from the project site or surrounding area. To ensure no injury or damage to sensitive reptile species, mitigation measure BIO-C has been provided. With implementation of this mitigation measure, impacts to reptiles that are CDFG Species of Special Concern would be less than significant (Final EIR, p. 3.3-20).

Significant Impact: **BIO-2** *The proposed project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS.* As set forth in Section 3.3 of the Final EIR, the project would potentially impact coast live oak woodland Riversidean alluvial fan sage scrub, coastal sage scrub, and waters under jurisdiction of the U.S. Army Corps of Engineers (USACE) and CDFG in the Middle SPS, resulting in a significant impact. Mitigation would be required to reduce these impacts to a less than significant level.

Finding: Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR. Specifically, the following mitigation measures would reduce the significant effect of Impact BIO-2 to a less than significant level.

BIO-D LACDPW shall mitigate for impacts to 6.7 acres of coast live oak woodlands through a combination of on-site creation of coast live oak woodland and/or by permanently protecting comparable habitat in the watershed or by establishing a conservation easement at the Big Tujunga Mitigation Bank. The combined total of onsite creation and/or permanent protection at the Big Tujunga Mitigation Bank shall be a minimum of 6.7 acres.

Oak woodland restoration shall occur within the Lower SPS, which includes approximately 8 acres available for such restoration activities.

Establishment of a conservation easement shall permanently protect comparable habitat at the Big Tujunga Mitigation Bank, which includes land purchased by the LACDPW.

The final size of a conservation easement and the number of trees planted for mitigation shall be determined through consultation with CDFG. City of Arcadia will be consulted regarding restoration activities on the Lower SPS.

Mitigation for impacts to coast live oak individuals shall be negotiated in conjunction with mitigation for impacts to coast live oak woodland. A conceptual restoration plan shall be provided once mitigation ratios are negotiated. The restoration plan shall include detailed methodology for how the site will be prepared, planted, and maintained and

quantitative performance criteria such as minimum percent cover by native species, maximum percent cover by non-native species, and minimum species diversity levels.

Details of planting for mitigation shall be described in both a conceptual restoration plan and a mitigation and monitoring plan for oak woodland, which shall be submitted and approved by CDFG prior to implementation of the project.

BIO-E Mitigation for impacts to 3.8 acres of Riversidean alluvial fan sage scrub and 0.08 acre of disturbed Riversidean alluvial fan sage scrub will be accomplished through a combination of restoration of a suitable area on-site and/or by permanently protecting comparable habitat by establishing a conservation easement at the Big Tujunga Mitigation Bank. The combined total of onsite restoration and/or permanent protection at the Big Tujunga Mitigation Bank shall be a minimum of 3.88 acres.

The Lower SPS includes approximately 8 acres available for restoration. Mitigation for impacts to Riversidean alluvial fan sage scrub shall be negotiated with CDFG. A conceptual restoration plan shall be provided once mitigation ratios are negotiated. The restoration plan shall include detailed methodology for how the site will be prepared, planted, and maintained and quantitative performance criteria such as minimum percent cover by native species, maximum percent cover by non-native species, and minimum species diversity levels. Details of planting for mitigation shall be described in a mitigation and monitoring plan approved by CDFG.

Establishment of a conservation easement shall permanently protect comparable habitat at the Big Tujunga Mitigation Bank, which includes land purchased by the LACDPW.

Rationale/Supporting Explanation: The proposed project would impact approximately 6.7 acres of coast live oak woodland in the Middle SPS. Coast live oak woodland is considered a sensitive habitat. The State of California Legislature has declared that the conservation of oak woodlands enhances the natural scenic beauty for residents and visitors, increases real property values, promotes ecological balance, provides habitat for over 300 wildlife species, moderates temperature extremes, reduces soil erosion, sustains water quality, and aids with nutrient cycling, all of which affect and improve the health, safety, and general welfare of the residents of the state. To minimize impacts due to loss of coast live oak woodland, mitigation measure BIO-D has been provided. With implementation of this mitigation measure, impacts to coast live oak woodland would be reduced to a level below significance (Final EIR, p. 3.3-20 - 3.3-22).

The proposed project would impact approximately 3.8 acres of Riversidean alluvial fan sage scrub and 0.08 acre of disturbed Riversidean alluvial fan sage scrub in the Middle SPS. Riversidean alluvial fan sage scrub is considered to be of high priority for inventory by the CNDDB because of its significance and rarity. Impacts to Riversidean alluvial fan sage scrub would result in a significant impact requiring

mitigation. To minimize impacts due to loss of Riversidean alluvial fan sage scrub, mitigation measure BIO-E has been provided. With implementation of this mitigation measure, impacts to Riversidean alluvial fan sage scrub would be reduced to a level below significance (Final EIR, p. 3.3-21).

Significant Impact: **BIO-3** *The proposed project would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.* As set forth in Section 3.3 of the Final EIR, the proposed project would impact 0.12 acre of ephemeral wash, resulting in a significant impact. Mitigation would be required to reduce these impacts to a less than significant level.

Finding: Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR. Specifically, Mitigation Measure BIO-F would reduce the significant effect of Impact BIO-3 to a less than significant level.

BIO-F Clean Water Act Section 404 (b)(1) guidelines shall be followed as a framework for compensatory mitigation. Through 404(b)(1) negotiations with the USACE and negotiations with CDFG under Fish and Game Code Sections 1600-1616, a determination of the functions and values of impacted jurisdictional waters shall result in the coordination of appropriate mitigation measures for sediment removal and the impacted ephemeral wash and riparian habitat in the excavation area of the reservoir and Middle SPS. Compensatory mitigation of permanently protecting a minimum of 0.15 acres of comparable habitat shall occur at the Big Tujunga Mitigation Bank or through restoration and permanent protection on Mountains Recreation Conservation Authority (MRCA) land.

Rationale/Supporting Explanation: The proposed project would impact 0.12 acre of ephemeral wash under jurisdiction of USACE in the Middle SPS. Permanent impacts to jurisdictional waters within the Santa Anita Reservoir would not occur because the proposed project would not result in the loss of habitat in the reservoir and the reservoir would continue to operate within the normal range of water level fluctuation upon completion of the project. Impacts to ephemeral wash would result in a significant impact requiring mitigation. To minimize impacts due to loss of ephemeral wash, mitigation measure BIO-F (see above) has been provided to ensure Section 404 (b)(1) of the Clean Water Act is followed as a framework for compensatory mitigation. With implementation of this mitigation measure, impacts to federally protected wetlands would be reduced to a level below significance.

The proposed project would impact 0.15 acre waters under jurisdiction of CDFG in the Middle SPS. The proposed project would remove sediment from the Santa Anita Reservoir; however, no loss of habitat would occur and no permanent impacts to federal jurisdictional waters would occur. Impacts to state waters would result in a significant impact requiring mitigation. To minimize impacts due to loss of state

waters, mitigation measure BIO-F has been provided to ensure Section 404 (b)(1) of the Clean Water Act is followed as a framework for compensatory mitigation. With implementation of this mitigation measure, impacts to state protected waters would be reduced to a level below significance (Final EIR, p. 3.3-21).

Significant Impact: **BIO-5** *The proposed project would conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance*. As set forth in Section 3.3 of the Final EIR, the proposed project would impact oak trees, resulting in a significant impact. Mitigation would be required to reduce these impacts to a less than significant level.

Finding: Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR. Specifically, the Mitigation Measure BIO-D (see above) would reduce the significant effect of Impact BIO-5 to a less than significant level.

Rationale/Supporting Explanation: The proposed project would remove 177 coast live oak and 1 Engelmann oak (the trunks of two of these trees are not within the project site, however, significant portions of their crowns are and so they have, therefore, been included in the total number) from the Middle SPS. Article IX, Chapter 7 of the Arcadia Municipal Code provides that coast live oaks, which meet specific requirements, shall not be removed, relocated, damaged, or half their protected zones encroached upon unless an Oak Tree permit is granted. Removal of oak trees would not require an Oak Tree Permit from the City of Arcadia, as stated in a letter dated August 7, 2008 from the City of Arcadia to LACDPW. Implementation of measure BIO-D (see above) in conjunction with the oak tree permit would reduce impacts to city protected oak trees to a level below significance.

5.3 CULTURAL RESOURCES – ARCHAEOLOGICAL RESOURCES, HUMAN REMAINS

Significant Impact: **CUL-1** *Construction of the proposed project would potentially cause a substantial adverse change in the significance of an archaeological resource.* As set forth in Section 3.4 of the EIR, the project would potentially disturb archaeological resources, resulting in a significant impact. Mitigation would be required to reduce these impacts to a less than significant level.

Finding: Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR. Specifically, the following mitigation measures reduce the significant effect of Impact CUL-1 to a less than significant level.

CUL-A If archaeological materials are encountered during ground disturbing activities, work in the vicinity shall be immediately halted. The resource shall be assessed by a qualified archaeologist and the appropriate treatment determined in accordance with state law and

standard archaeological practices consistent with those outlined by the California Office of Historic Preservation prior to the resumption of construction.

Rationale/Supporting Explanation: Although, no archaeological resources were encountered during the course of the archaeological survey, Native Americans are known to have inhabited the San Gabriel Valley in prehistory. Because the project involves grubbing and ground disturbing activities, it is possible that surface artifacts obscured by surface vegetation or subsurface artifacts may be encountered by these construction activities. Grubbing and ground disturbance in the areas that are currently obscured may uncover evidence of such sites. Provided that mitigation measure CUL-A is implemented, no significant impacts to archaeological resources are anticipated (Final EIR, p. 3.4-18 – 3.4-19).

Significant Impact: **CUL-3** *Construction of the proposed project would disturb human remains, including those interred outside of a formal cemetery.* As set forth in Section 3.4 of the EIR, the project would potentially disturb previously unknown human remains, resulting in a significant impact. Mitigation would be required to reduce these impacts to a less than significant level.

Finding: Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR. Specifically, the following mitigation measures reduce the significant effect of Impact CUL-3 to a less than significant level.

CUL-B If human remains are encountered on the property during ground disturbing activities, the Los Angeles County Coroner's Office shall be contacted and all activities in the vicinity of the discovery shall cease until appropriate disposition of the remains is determined by the Coroner's Office, who will follow their standard protocols.

Rationale/Supporting Explanation: The proposed project area does not contain any formal cemeteries. Archival research and the archaeological survey in connection with the present project did not indicate the presence of any known human remains in the project area. However, given the undisturbed nature of the Middle SPS area and the past inhabitance of the region by Native Americans, impacts to human remains could occur during vegetation clearing and site preparation activities. Provided mitigation measure CUL-B is implemented, no significant impacts to human remains is anticipated (Final EIR, p. 3.4-19).

5.4 TRANSPORTATION AND CIRCULATION – PARKING CAPACITY

Significant Impact: **TRANS-2** *The proposed project would result in inadequate parking capacity.* As set forth in Section 3.9 of the EIR, the project would result in loss of parking capacity during the construction of the proposed project, resulting in a significant impact to traffic operations. Mitigation would be required to reduce these impacts to a less than significant level.

Finding: Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR. Specifically, the

following mitigation measures reduce the significant effect of Impact TRANS-2 to a less than significant level.

TRANS-A Prior to construction, a parking plan shall be prepared by the contractor for review and approval by LACDPW. The parking plan shall illustrate the parking locations for workers on the project site in areas that are not accessible by the public and clearly indicate that construction worker or equipment parking for non-maintenance and construction activities is prohibited in the Wilderness Park and on public roads. A parking map shall be provided to all construction workers prior to construction activities each year. LACDPW shall monitor parking compliance on a monthly basis throughout the construction period.

Rationale/Supporting Explanation: No permanent or temporary parking facilities are included as part of the proposed project, nor would any be required as a result of the proposed project. The construction site is anticipated to accommodate all parking demand generated by construction activity. Construction workers would park by the reservoir, in the staging area, or other in other areas of the project site that are within the LACDPW maintenance facilities and outside of any public parking areas. Localized on-street parking impacts are not anticipated during the project construction period (Final EIR, p. 3.9-9).

Demand within the Wilderness Park parking lot is low on weekdays and does not normally reach capacity levels. Even with large groups, over 100 visitors, the parking lot has sufficient capacity because groups typically would arrive in buses or vans. On weekends, the park facilities are available to groups by reservation only and general public access is prohibited. It is not anticipated that the proposed project would create any significant parking impacts within the Wilderness Park parking lot. However, to ensure construction workers do not park in the Wilderness Park or other public areas, including local streets, implementation of mitigation measure TRANS-A would reduce this impact to a less than significant level (Final EIR, p. 3.9-9).

CHAPTER 6
SIGNIFICANT ENVIRONMENTAL IMPACTS

The following Findings for project impacts refer to the significant environmental effects of the project for which feasible mitigation measures are not available to avoid or substantially lessen the significant environmental effects to below a level of significance. The impacts would remain significant and unavoidable.

6.1 AIR QUALITY – GREENHOUSE GAS EMISSIONS

Significant Impact: **Cumulative Air Quality Impact** *Construction of the proposed project would contribute to a cumulative air quality impact related to global climate change.* As set forth in Section 4.0 of the EIR, the proposed project would result in significant unavoidable cumulative impacts related to global climate change. Although there will be no operational impacts of the project in this area, short-term sources of project-generated greenhouse gas (GHG) emissions would be the off-road construction equipment and on-road vehicles used for site preparation, grading, and construction of the site facilities. The combustion of gasoline and diesel fuel results in the generation of CO_2, methane, and nitrous oxide. As such, operation of the construction equipment associated with the project would generate emissions that would exceed existing levels and contribute to global warming impacts. The magnitude of the project's GHG impact is relatively low (1,784 tons of CO_2 emissions) compared to statewide emissions and mitigation measure AIR-A would reduce and partially offset the proposed project's contribution to climate change; however, the County has conservatively determined that the project's global climate change impact would remain significant and unavoidable. In the absence of defined regulation, LACDPW has conservatively determined that for the purposes of this EIR, the proposed project's contribution to GHG emissions would be significant (Final EIR, p. 4-12).

Finding: Changes or alterations have been required in, or incorporated into, the project which lessens the significant cumulative air quality and climate change impacts identified in the Final EIR. Short-term sources of project-generated GHG emissions would be the off-road construction equipment and on-road vehicles used for site preparation, grading, and construction of the site facilities. The combustion of gasoline and diesel fuel results in the generation of CO_2, methane, and nitrous oxide. As such, construction of the proposed project would generate emissions that would exceed existing levels and contribute to global warming impacts. The project would generate 1,784 tons of CO_2 emissions. Implementation of mitigation measure AIR-A during construction would likely reduce the proposed project's contribution of GHG emissions. In addition, at least 50 percent of the site materials would be recycled or salvaged in accordance with AB 939 further reducing the proposed project's contribution to GHG emissions during construction activities.

The proposed project will also utilize low emitting equipment during sediment conveyance activities. The proposed project would not require truck hauling to transport sediment from the reservoir to the

proposed Lower and Middle SPS areas. Instead, the proposed project would use an electric conveyor belt system, which would reduce fugitive dust and diesel engine exhaust emissions. The conveyor belt would extend the entire length of the project, from the reservoir through an existing tunnel that connects the reservoir to an access road located below the dam on the east side of the streambed, continuing along the access road, past the Headworks, over the Wilderness Park parking lot (not obstructing traffic or emergency vehicles), south on the fire access roads, past the upper portion of the debris basin, and would terminate at the upper portion of the Lower SPS. Utilization of lower emitting equipment, such as an electric conveyor belt system, would reduce NO_X emissions and reduce the need other emitting equipment, such as trucks. As a result, estimated project emissions for all construction activities would be reduced below their threshold levels during and after the maximum construction overlap (Final EIR, 2-8 and 3.2-13 – 3.2-14).

Although the magnitude of the impact is low (1,784 tons of CO_2 emissions), mitigation measure AIR-A would assist in the reduction of the project's contribution to global climate change. The landscaping in the Lower SPS area, restoration of removed vegetation, and oak woodland mitigation as required by the proposed project would also partially offset the impacts associated with global climate change. However, even with restoration and replanting associated with mitigation measures, BIO-D and BIO-E, global climate change impacts would remain significant and unavoidable.

Reduction of the GHGs has been factored into the decision making process from early in the project development. The decision not to truck the sediment to an offsite location was based on several factors, including GHG reduction. By using an electric conveyor belt from Wilderness Park to the SPS areas, tens of thousands of diesel truck trips would be avoided. Although trees would be removed to create the Middle SPS, this will allow for future sediment clean out projects of the Santa Anita Reservoir, which also eliminates future offsite truck trips for sediment removal (Final EIR, p. 4-12). The County finds that specific economic, legal, social, technological, or other considerations make infeasible any additional mitigation.

Rationale/Supporting Explanation: As discussed above, the County has conservatively determined that impacts related to GHG emissions during construction would remain significant and unavoidable, even after implementation of mitigation measure AIR-A. Mitigation measure AIR-A would reduce project NO_X emissions during the maximum emissions overlap period by 40 percent through the use of low- NO_X emitting equipment, and would likely reduce CO_2 emissions, depending on the contractor's reduction plan. No additional feasible measures are available to further reduce the potential short-term air impacts associated with project construction activities (Final EIR, p. 4-12).

6.2 NOISE – CONSTRUCTION NOISE, EXCEED ESTABLISHED STANDARDS

Significant Impact: **NOISE-1** *Construction of the proposed project would create a substantial temporary or periodic increase in ambient noise levels, including groundborne noise levels, in the vicinity of the*

project, in excess of existing noise levels without the project. As set forth in Section 3.7 of the EIR, for this project, a maximum noise level of 93 dBA at a distance of 50 feet from the center of construction activities is assumed to occur during the simultaneous excavation of sediment at the reservoir and modification to the dam outlet structures. It is also anticipated that a maximum of 90 dBA at 50 feet is assumed for the construction equipment activity at the Middle and Lower SPS areas. These would exceed the City of Arcadia's noise limit. However, noise impacts would be reduced during sediment conveyance activities through the use of an electric conveyor belt system. The proposed project would not require truck hauling to transport sediment from the reservoir to the proposed Lower and Middle SPS areas. Instead, the proposed project would use an electric conveyor belt system, which would extend the entire length of the project, from the reservoir through an existing tunnel that connects the reservoir to an access road located below the dam on the east side of the streambed, continuing along the access road, past the Headworks, over the Wilderness Park parking lot (not obstructing traffic or emergency vehicles), south on the fire access roads, past the upper portion of the debris basin, and would terminate at the upper portion of the Lower SPS. As described in Chapter 3.7, noise would be generated by the conveyance of excavated sediment from the reservoir to the Middle SPS. Noise levels from the conveyor belt system would be steady and constant could range from 70 to 80 dBA at 50 feet based on design (i.e., uncovered vs. covered). The drive units of the conveyor belts have been measured at 77 dBA Leq at 35 feet, with the conveyor belt rollers much lower at 53 dBA Leq. From the reservoir, the conveyor belt system would pass through the existing tunnel. Conveyance noise levels the nearest residence would be reduced by the tunnel, and distance and topography to less than the City of Arcadia noise limit of 55 dBA. Conveyance noise would be generated through the Wilderness Park, a sensitive noise receptor as defined in the City's Noise Element. Conveyance noise could interfere with some recreation activities within a range of 200 to 600 feet from the route, beyond which noise levels would be below the threshold. The conveyance system would continue south for approximately 6,000 feet along the access road to the Middle SPS. Maximum conveyance noise of 77 dBA Leq would attenuate over distance on "soft" terrain to approximately 55 dBA, assuming a soft surface at the nearest residences approximately 400 from the conveyance. While these noise levels would be audible, they would not interfere with normal speech. These noise levels would not exceed the City of Arcadia 55 dBA limit, not resulting in a significant impact (Final EIR, 3.7-13).

Noise levels from the project construction would be a significant impact. Mitigation Measures NOISE-A though NOISE-F are included in Section 3.7 to reduce noise associated with project construction and to minimize the disturbance to nearby residents. Short-term noise impacts would be significant and unavoidable (Final EIR, p. 3.7-13 - 3.7-14).

Finding: Changes or alterations have been required in, or incorporated into, the project which lessens the significant environmental impact as identified in the Final EIR. Specifically, NOISE-A through NOISE-F, set forth below, would reduce construction noise impacts. However, noise levels would remain above the City's noise thresholds at nearby sensitive receptors, and the County finds that specific economic, legal, social, technological, or other considerations make infeasible any additional mitigation.

NOISE-A At all areas except the reservoir-dam area, construction equipment shall be fitted with noise shielding and muffling devices to reduce noise levels to the maximum extent feasible. Where available, these devices shall be better than manufacturer's standard equipment.

NOISE-B Stationary sources, such as message boards for traffic control, that will be located within 500 feet of residences shall be solar or battery powered, or connected to the local power grid, i.e., not powered by an internal combustion engine.

NOISE-C At the SPS areas, equipment maintenance and staging areas shall be located within the project area.

NOISE-D At the Lower SPS, construction of a noise barrier on the west and southwest sides will be feasible. Therefore, at the commencement of sediment placement in the Lower SPS, LACDPW shall construct a barrier that shall be at least one foot higher than the line of sight between the exhaust pipes of the construction equipment and receptors that are located 5 feet above the ground on the residential properties immediately to the west and southwest. The necessary height of the barrier will vary with the elevation of the SPS as it is built up. The barrier may be made of plywood, and if so, the wood should be at least ¾ inch thick to prevent noise transmission through the barrier. Alternatively, the most efficient and economical barrier may be built by depositing the initial sediment along the affected boundaries of the site and building an earth berm as a barrier, always keeping the remainder of the working area behind the earth berm relative to the receptors.

NOISE-E At the commencement of sediment placement in the Middle SPS, the LACDPW shall construct a barrier that shall be at least one foot higher than the line of sight between the exhaust pipes of the construction equipment and receptors that are located 5 feet above the ground on the residential properties immediately to the west. The necessary height of the barrier will vary with the elevation of the SPS as it is built up. The barrier may be made of plywood, and if so, the wood should be at least ¾ inch thick to prevent noise transmission through the barrier. Alternatively, a barrier may be built by depositing the initial sediment along the western boundary of the site and building an earth berm as a barrier, always keeping the remainder of the working area behind the earth berm relative to the receptors.

NOISE-F The LACDPW shall establish a noise complaint and response procedure that includes a 24-hour toll free or local telephone number for complaints, and a procedure where a field engineer/construction manager will respond within 48 hours as practicable, investigate the complaints, and take corrective action if necessary. Complaints after normal working hours may be received by voice mail.

Rationale/Explanation: Intermittent noise levels would likely exceed the established noise thresholds during more intensive construction activities. Typical construction projects, with equipment moving from one point to another, work breaks, and idle time, have long-term noise averages that are lower than loud, short-term noise events. Construction equipment noise levels also vary as a function of the activity level, or duty cycle. As many as 10 to 15 pieces of equipment could be operating in the dam and reservoir area at one time. However, not all of this equipment would be operating at full power at the same time. For this project, a maximum noise level of 93 dBA at a distance of 50 feet from the center of construction activities is assumed to occur during the simultaneous excavation of sediment at the reservoir and modification to the dam outlet structures. A maximum of 90 dBA at 50 feet is assumed for the construction equipment activity at the Middle and Lower SPS areas (Final EIR, 3.7-12 – 3.7-13).

As discussed above, construction operations would result in intermittent noise levels. For persons nearby and outside, the noise levels at several locations near the project site would be disturbing and would interfere with normal speech. These noise levels may also be disturbing at locations inside structures, especially if windows are open. However, noise attenuates with increased distance. For example, the maximum noise levels from the Lower SPS and Middle SPS areas are at 90 dBA. Adjacent residences, 200 feet south of Lower SPS, would attenuate to approximately 78 dBA. Adjacent residences, 350 feet west of the Middle SPS, would attenuate to approximately 73 dBA (Final EIR, 3.7-14). Additionally, construction activities would be limited to the hours between 7:00 a.m. and 7:00 p.m., Monday through Friday.

However, periodic noise level increases during the 8-month construction period and would exceed City noise standards, resulting in a significant impact. Mitigation measures NOISE-A through NOISE-F are provided to reduce noise associated with project construction or reduce impacts to sensitive receptors. No additional feasible measures are available to further reduce the potential short-term noise impacts associated with project construction activities (Final EIR, p. 3.7-13 – 3.7-14).

Significant Impact: **NOISE-3** *The proposed project would expose people to noise levels in excess of standards established in a local general plan or noise ordinance, or in other applicable local, state, or federal standards.* As set forth in Section 3.7, some noise levels during construction would exceed the standards of the City of Arcadia Noise Element of the General Plan and noise ordinance of the Municipal Code. Therefore, project construction noise would be a significant impact. Mitigation Measures NOISE-A and NOISE-F, set forth above, would minimize the disturbance to nearby residents (Final EIR, p. 3.7-15 – 3.7-16).

Finding: Changes or alterations have been required in, or incorporated into, the project which lessens the significant environmental impact as identified in the Final EIR. As discussed above, noise impacts associated with sediment conveyance would not require truck hauling activities. Instead, the proposed project would use an electric conveyor belt system, which would extend the entire length of the project, Sediment placement activities would not occur for the entire duration of the construction phase.

Conveyance noise levels at the nearest residence would be reduced by the tunnel, distance, and topography to less than the City of Arcadia noise limit of 55 dBA (Final EIR, 3.7-13).

Additionally, mitigation measures NOISE-A through NOISE-F, set forth above, would reduce construction noise levels and impacts to residents near the work areas. However, construction noise levels would remain above the City's noise thresholds at nearby sensitive receptors. The County finds that specific economic, legal, social, technological, or other considerations make infeasible any additional mitigation.

Rationale/Explanation: Noise sensitive receptors are generally considered to be human activities or land uses that may be significantly affected by interference from noise. Noise sensitive receptors in the vicinity of the proposed project include the following:

- For the reservoir and dam, there are no sensitive human receptors within 1,800 feet; the nearest residences are located at the northeast end of Highland Vista Drive. There are ridges and valleys between the dam and the residences, thereby blocking the line of sight between the two locations.

- Park users of the Arcadia Wilderness Park are considered sensitive receptors for this project.

- Along the conveyance route, there are residences to the west of the Santa Anita Spreading Grounds, approximately 400 to 600 feet west of the proposed conveyance route between the reservoir and the Middle SPS. The residences are generally located at an elevation higher than the conveyance route.

- The residences closest to the Middle SPS are located on the east side of Highland Oaks Drive, south of Doshier Avenue, approximately 300 feet from the west edge of the Middle SPS at approximately the same elevation.

- The residences closest to the Lower SPS are located to the south on Oakglen Avenue and at the terminus of Oakhaven Road, at a distance of approximately 200 feet. West of the Lower SPS, the closest homes are on Highland Oaks Drive, approximately 275 feet to the west. East of the Lower SPS the closest homes are approximately 300 feet to the east, which are elevated above the Lower SPS.

Additional noise receptors in the project vicinity include Foothills Middle School, located approximately 0.20 miles south of the Lower SPS; Highland Oaks Elementary School, located approximately 0.33 miles west of the Lower SPS; and Arcadia Home Nursing & Health, located approximately 0.44 miles southeast of the Lower SPS. Other types of receptors (mobile homes, hotels, hospitals, or libraries) are not located in proximity to the proposed project (Final 3.7-4).

Intermittent noise levels would likely exceed the established noise thresholds during more intensive construction activities, As many as 10 to 15 pieces of equipment could be operating in the dam and reservoir area at one time. However, not all of this equipment would be operating at full power at the same time (Final EIR, 3.7-12 – 3.7-13). Additionally, noise impacts associated with sediment conveyance would be reduced with use of an electric conveyor belt system, which would extend the entire length of the project, Sediment placement activities would not occur for the entire duration of the construction phase. Conveyance noise levels at the nearest residence would be reduced by the tunnel, distance, and topography to less than the City of Arcadia noise limit of 55 dBA (Final EIR, 3.7-13).

Mitigation measures NOISE-A through NOISE-F are provided to reduce noise associated with project construction or reduce impacts to sensitive receptors. NOISE-A would require installation of state-of-the-art noise shielding and muffling devices to reduce noise levels to the maximum extent feasible. NOISE-C would require equipment maintenance and staging areas shall be located as far away from the residences as feasible. NOISE-D and NOISE-E would provide the construction of temporary noise barriers. NOISE-F would provide for a noise complaint and response procedure.

The use of an electric conveyor belt system for sediment conveyance, along with the mitigation measures described above, would reduce construction noise levels and impacts to residents near the work areas. No additional feasible measures are available to further reduce the potential short-term noise impacts associated with project construction activities (Final EIR, p. 3.7-15 – 3.7-16).

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CHAPTER 7
FINDINGS REGARDING PROJECT ALTERNATIVES

Chapter 5, Project Alternatives, of the Final EIR discussed the alternatives that were considered, but rejected and alternatives carried forward for detailed analysis. This presented a reasonable range of options to the proposed project.

7.1 ALTERNATIVES CONSIDERED BUT REJECTED

Because the proposed project is location specific, there are no alternative sites where modifications to the Santa Anita Dam and sediment removal for the Santa Anita Reservoir could be feasibly relocated while meeting the objectives of the project. Five alternatives were considered, but were rejected as infeasible during the scoping process. Chapter 5, Alternatives of the Final EIR provides a detailed description of the alternatives that were identified, but eliminated from further analysis and consideration. The following will provide a brief summary.

7.1.1 SLUICING/FLOW ASSISTED SEDIMENT TRANSPORT (FAST)

A sluicing/ Flow Assisted Sediment Transport (FAST) operation consists of draining the reservoir and utilizing inflow to wash the accumulated sediment out of the reservoir through the lowest gate of the dam to the stream below. The purpose of a sluice operation is to remove a large amount of accumulated sediment from the reservoir. It is usually done outside the storm season. A sluice/FAST operation is not feasible for the purposes of the proposed project due to its greater environmental impacts than the dry excavation approach and the other technical issues discussed in Chapter 5, Alternatives of the Final EIR. The science and benefit of the sluice/FAST operation are still being discussed and under continuous evaluation. Additionally, these operations would not eliminate the use of construction equipment and activities similar to the proposed project to complete sediment transport and place sediment in the proper areas of the Santa Anita Reservoir flood control facilities. Therefore, this alternative was not considered a feasible alternative and was eliminated from further consideration in this EIR (Final EIR, 5-1 – 5-4).

7.1.2 DREDGING/SLURRY PIPELINE

A dredging operation typically requires a dredging barge and a pipeline to transport the slurry-like dredged material, booster stations along the pipeline, and a large dewatering area to treat the dredged material. Santa Anita Reservoir is very narrow and small. It would accommodate only a smaller capacity-dredging barge, which limits its removal rate and volume. The dewatering area would have to be larger than the staging area footprint needed for a dry excavation transport operation. The potential sediment dewatering areas would be Santa Anita Debris Basin and Peck Road Water Conservation Park. Treating/dewatering the dredged sediment would face even greater environmental impacts than a sluice/FAST operation because of the higher water content in the slurry sediment. The economic cost of

dredging/slurry pipeline is usually higher than dry excavation because dredging requires more complicated equipment and it is a specialized technique in today's construction market. Therefore, a dredging is not feasible for this project due to its environmental impacts (Final EIR, p. 5-4 – 5-5).

7.1.3 TRUCKING ALONG SANTA ANITA CANYON ROAD

Bypassing the downstream streambed, access road, Wilderness Park, and debris basin would require trucking along the access road from the dam to Santa Anita Canyon Road and along Santa Anita Canyon Road to Santa Anita Avenue down to Elkins Avenue or to the 210 Freeway. The dam's access road to Santa Anita Canyon Road is structurally inadequate for major, sustained trucking operations. The winding and narrow nature of Santa Anita Canyon Road is also not suitable for major, sustained trucking operations. Due to the increase in transportation and air quality impacts, this alternative was eliminated from further consideration in this EIR (Final EIR, p. 5-5).

7.1.4 FULL BUTTRESS

Constructing a large concrete buttress on the downstream face of Santa Anita Dam is an alternative to the riser modification portion of the proposed project. It would mitigate for the DSOD's concerns about the seismic stability of the dam and would restore use of the full reservoir capacity for water storage; it would not eliminate the need for future sediment management activities within the canyon. This option is currently being explored as a possible future project. The LACDPW has been working with the cities of Arcadia and Sierra Madre on possible future implementation of this alternative, including obtaining grants and/or other state and federal funding. However, there is an immediate need to ensure the dam meets DSOD's seismic safety requirements. Implementation of the full buttress alternative, from preparation of design plans to construction, is not realistic within the required timeframe due to the complexity of the technical design work and securing the necessary funding estimated at $70 to $100 million. Therefore, this alternative was not considered a feasible alternative and was eliminated from further consideration in this EIR (Final EIR, p. 5-5).

7.1.5 CONVEYOR BELT IN SANTA ANITA WASH

The concreted lined Santa Anita Wash was built for the purpose of flood control. The use of the Santa Anita Wash for the conveyor belt system alignment was proposed as an alternative to the proposed alignment along existing roads to the SPS areas. If the conveyor belt system is placed inside Santa Anita Wash, there is the potential, even during the anticipated 6 to 8 -month construction period of April through October, of a significant rain event. The use of the channel for the conveyor belt system during a rain event would cause damage to the equipment and hinder the flood control capability of the Santa Anita Wash. Due to short-term the potential for equipment damage and loss of flood protection during the operation of the conveyor belt system in the Santa Anita Wash, this alternative was eliminated from further consideration in this EIR (Final EIR, p. 5-5).

7.2 ALTERNATIVES CARRIED FORWARD FOR DETAILED ANALYSIS

In addition, these other alternatives were carried forward for detailed analysis because it would feasibly attain most of the basic objectives for the proposed project and would avoid or substantially lessen significant environmental effects. Chapter 5 of the Final EIR provides a detailed description of the alternatives. The alternatives are briefly summarized below: No Project Alternative (Alternative 1); Convey to Wilderness Park, Truck to SPS (Alternative 2); Convey to Clearing North of the SPS, Truck Off-Site (Alternative 3); and Convey to Wilderness Park, Truck Off-Site (Alternative 4).

7.2.1 NO PROJECT (ALTERNATIVE 1)

According to the *CEQA Guidelines* (Section 15126.6(e)(3)(b)), the No Project Alternative is defined as the "circumstance under which the project does not proceed." The impacts of the No Project Alternative shall be analyzed "by projecting what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." Under the No Project Alternative, the proposed dam riser modification would not be constructed and sediment would not be removed from the Santa Anita Reservoir. The Santa Anita Dam and the Santa Anita Reservoir would remain non-compliant with the California Department of Water Resources, DSOD dam safety requirements for emergency drawdowns.

7.2.1.1 ENVIRONMENTAL EFFECTS

Direct impacts associated with the proposed project would be avoided because no construction would occur under the No Project Alternative. Because the proposed excavations would not occur, temporary impacts related to aesthetics, biological resources, cultural resources, geology and soils, hydrology and water quality, recreation, and transportation/traffic would not occur. Additionally, no construction-related air quality and noise impacts associated with the construction of the Santa Anita Dam Riser and removal of sediment from the Santa Anita Reservoir would occur.

However, the No Project Alternative would not benefit from the positive features of the proposed project in that it would not comply with DSOD dam safety requirements for emergency drawdowns. Non-compliance would also subject LACDPW to potential penalties from DSOD. Sediment level in the reservoir would continue to increase and the outlet would eventually silt up, making the dam inoperable. The No Project Alternative would not provide an adequate flood control or water conservation facility for the project area.

7.2.1.2 FINDINGS

Specific economic, legal, social, technological, and other considerations make the No Project Alternative infeasible and less desirable than the proposed project. Specifically, implementation of the No Project

Alternative would not result in any of the improvements for the Santa Anita Dam and Santa Anita Reservoir outlined above and set forth in the Statement of Overriding Considerations. This alternative has also been rejected because it would not meet most of the basic project objectives which are:

- Remove the sediment accumulated in the reservoir in a timely manner to avoid plugging and damage to the dam's outlet works.

- Modify the riser on the dam's lowest gate to ensure that DSOD's water level restrictions and seismic safety requirements are met.

- Provide additional sediment storage capacity for future routine and emergency cleanout activities served by the Santa Anita SPS.

7.2.2 CONVEY TO WILDERNESS PARK, TRUCK TO SPS (ALTERNATIVE 2)

Alternative 2, similar to the proposed project, would remove approximately 500,000 cubic yards of sediment from Santa Anita Reservoir. Alternative 2 would convey the sediment directly to the Wilderness Park area via conveyor belt. From there, the sediment would be transported by truck to the Lower and Middle SPS areas. The conveyance system would be approximately 5 feet wide and up to 15 feet high. Public access to the park would be maintained during sediment conveyance activities. All other project characteristics of Alternative 2 would be the same as the proposed project.

Sediment removal activities are anticipated to occur over the two 8-month periods of April through December (weather permitting). The removal of vegetation in a portion of the Middle and Lower SPSs is anticipated to occur after September and prior to March. Dewatering of the reservoir would begin in early April and last for approximately two weeks. The dry out of the reservoir would start at the end of the dewatering cycle, which is anticipated to be in early May and last up to three weeks, depending on the magnitude of recession flows and the weather.

Similar to the proposed project, approximately 250,000 cubic yards of sediment would be placed at the already disturbed Lower SPS, which would then be landscaped, and closed out to future sediment placement; the remainder of the excavated sediment, ranging from 50,000 to 250,000 cubic yards would be placed in an approximately 13-acre area in the Middle SPS, located east of the Santa Anita Wash, below the existing Upper SPS. Spreading and compaction of sediment at the proposed SPS areas would be the same as the proposed project. Construction crews would implement standard BMPs during construction and adhere to all applicable construction safety guidelines.

7.2.2.1 ENVIRONMENTAL EFFECTS

As discussed in Chapter 5.0 of the Final EIR, impacts associated with Alternative 2 would be similar to the proposed project for aesthetics, biological resources, cultural resources, geology and soils, hydrology and water quality, recreation, and transportation and circulation. Construction-related impacts to air

quality and noise would remain significant and unavoidable under this alternative. The additional air quality and noise impacts are associated with the use of trucks for hauling sediment from the Wilderness Park to the SPS areas. Cumulative air quality impacts would also be significant and unavoidable during construction of this alternative.

AESTHETICS, LIGHT AND GLARE

Aesthetic and visual impacts associated with this alternative would be similar to those associated with the proposed project. Alternative 2 would not result in alterations to the scenic quality of any buildings or other scenic resources and would not affect designated scenic views. Due to the location of the SPS areas, this alternative would not create substantial shade and shadow effects on any development that is near the project site. No significant aesthetic impacts would be anticipated, due to the location of the dam and reservoir and the proposed modification to the riser would not be visible to any viewers after the construction would be complete. Additionally, the SPS areas that would be affected by the project would be visually similar to the existing conditions, would not substantially impact sensitive viewers in the project vicinity, and would be landscaped upon completion similar to the proposed project. Accordingly, no mitigation is required, and similar to the proposed project, impacts would be less than significant.

AIR QUALITY

Under Alternative 2, the sediment volumes and type of construction activities would be similar to the proposed project, except for a shorter conveyance and the use of trucks for sediment hauling. Alternative 2 would convey the sediment via conveyor belt to Wilderness Park and the sediment would be transported by truck to the Lower SPS and Middle SPS.

The construction phases, durations, and assumptions are the same as the proposed project, except eight trucks would be required for sediment hauling. Under the maximum overlap of construction activities, the maximum daily project emissions would exceed the maximum daily emission thresholds for NO_X, PM_{10} and $PM_{2.5}$, as shown in Table 7-1.

TABLE 7-1 ALTERNATIVE 2 ESTIMATED DAILY CONSTRUCTION EMISSIONS (UNMITIGATED)

Construction Activity	Estimated Emissions (lbs/day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
SPS preparation	2	21	11	<1	35	8
Dam Riser construction	4	38	15	<1	2	1
Sediment excavation, transfer and placement	18	**149**	85	<1	**456**	**103**
Maximum Overlap (concurrent construction activities)						
Dam Riser construction	4	38	15	<1	2	1
Sediment excavation and conveyance	12	**97**	56	<1	**229**	523
Sediment placement	6	52	30	<1	**227**	49
Total for maximum overlap	22	**188**	100	<1	**458**	**102**
Daily Thresholds for Construction Emissions	***75***	***100***	***550***	***150***	***150***	***55***

Totals may not add due to rounding

Construction Activity	Estimated Emissions (lbs/day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**

Note: Construction assumptions, including the estimated number and type of construction equipment, construction-related trips, area of disturbance, etc., are presented in the URBEMIS data sheets in Appendix F.
Bold – emissions exceeds threshold

Similar to the proposed project, PM_{10} and $PM_{2.5}$ emissions would be reduced to less than their threshold levels with the dust control measures corresponding to SCAQMD Rule 403 added. NO_X emissions would be reduced with the identified mitigation, however, would exceed the threshold for NO_X during the maximum construction overlap period due the NO_X emissions. However, sediment moving activities would be at the NOx threshold; the addition of the non-sediment moving component of the overlap, construction of the dam riser, results in exceeding the threshold, as shown in Table 7-2. Mitigation measure AIR-A would not reduce project NO_X emissions below the significance threshold for NO_X. Accordingly, project NO_X emissions for Alternative 2 would be significant and unavoidable, resulting in an increase in severity compared to the proposed project.

TABLE 7-2 ALTERNATIVE 2 ESTIMATED DAILY CONSTRUCTION EMISSIONS (MITIGATED)

Construction Activity	Estimated Emissions (lbs/day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
SPS preparation	2	22	11	<1	19	5
Dam Riser construction	4	23	15	<1	2	1
Sediment excavation, transfer and placement	18	93	85	<1	67	20
Maximum Overlap (concurrent construction activities)						
Dam Riser construction	4	23	15	<1	2	1
Sediment excavation and conveyance	12	62	56	<1	35	11
Sediment placement	6	31	30	<1	32	9
Total for maximum overlap	22	**116**	100	<1	68	21
Daily Thresholds for Construction Emissions	***75***	***100***	***550***	***150***	***150***	***55***

Totals may not add due to rounding
Note: Construction assumptions, including the estimated number and type of construction equipment, construction-related trips, area of disturbance, etc., are presented in the URBEMIS data sheets in Appendix F.
Bold – emissions exceeds threshold

BIOLOGICAL RESOURCES

Alternative 2 would result in similar impacts to those associated with the proposed project. The biological impacts associated with this alternative would occur in the Middle SPS. Impacts to vegetation, jurisdictional waters, and habitat communities, including oak trees would be significant due to the removal of approximately 11 acres of native vegetation in the Middle SPS. Mitigation measures BIO-A through BIO-E specified for the proposed project would also be required for Alternative 2.

CULTURAL RESOURCES

Similar to the proposed project, this alternative would not significantly affect any historic buildings or cultural significance on the site. Mitigation measures would still be required to reduce impacts to buried archaeological resources and human remains to a less than significant level.

GEOLOGY AND SOILS

Similar to the proposed project, Alternative 2 is not located within an Alquist-Priolo Earthquake Fault Zone or on expansive soils. It would not involve the installation of septic tanks or construction of habitable structures. Disturbed sediments are more susceptible to erosion; however, excavation, grading, and sediment placement activities would be in accordance with LACDPW regulations for SPS sites, which establish protocols for proper grading and placement of sediment at SPS sites. Similar to the proposed project, this alternative would be required to adhere to all applicable construction standards with regard to erosion control and applicable seismic design codes to reduce impacts associated with loss of topsoil and liquefaction, respectively, to a less than significant level.

Because the sediment would not experience excessive loading or intrusion of water and the sediment would be properly placed and compacted within the SPS sites, the proposed project would not be expected to result in subsidence or collapse. Additionally, per LACDPW standards, the sediment would be placed in horizontal layers and would ultimately result in a slope no steeper than 2:1 horizontal to vertical ratio. As such, Alternative 2 would not be expected to result in on or off-site site landslides. This alternative would have similar geological impacts as identified for the proposed project because the construction footprint and the proposed construction activities would be similar to those for the proposed project. As with the proposed project, impacts to geology and soils would be less than significant, and no mitigation is required.

HYDROLOGY AND WATER QUALITY

Under Alternative 2, construction-related water quality and hydrology impacts would be similar to the proposed project. During construction, adherence to the BMPs established in the SWPPP would reduce sediment-laden runoff, prevent the migration of contaminants from construction areas to the adjacent residential uses, and ensure that stormwater discharges would not violate applicable water quality standards. In the event construction of the proposed project requires the disturbance of soil during the rainy season as defined (October 1 through April 15), a WWECP would be developed, which would include measures to prevent on-site erosion that the contractor would be required to implement. Excavation, grading, and sediment placement activities would also be undertaken in accordance with LACDPW regulations for SPS sites, which establishes protocols for proper design of slopes and temporary sediment collecting structures. Adherence to these regulations and site design requirements would be enforced through plan check reviews and site inspection following the issuance of grading permits. Accordingly, impacts related to on-site erosion would be less than significant, and no mitigation is required. The impact of Alternative 2 to hydrology and water quality would be similar to the proposed project.

NOISE

Under Alternative 2, the excavated sediment would be conveyed via conveyor belt to the Wilderness Park for transfer to trucks for hauling to the Lower and Middle SPSs for placement. Noise sensitive receptors in addition to those identified for the proposed alternative include:

- The residences closest to the Wilderness Park located at the northeast end of Highland Vista Drive, approximately 320 feet from the Park and approximately 150 feet higher than the staging area.

- The residences west of the Santa Anita Spreading Grounds, approximately 400 to 600 feet west of the proposed project haul route and generally located at a higher elevation than the haul route.

The maximum noise levels from the sediment transfer activities at the Wilderness Park staging area of 88 dBA to the nearest residences approximately 320 feet to the west would attenuate by distance to approximately 72 dBA. This noise level would exceed the City of Arcadia limit of 55 dBA, and would be substantially greater than the ambient noise levels, resulting in a significant impact. Noise from the staging area would also intrude into the Wilderness Park, a sensitive noise receptor as defined in the City's Noise Element, and therefore, could interfere with some recreation activities within a range of 1,000 to 2,000 feet from the staging area, beyond which noise levels would be below the threshold.

Noise would also be generated by trucks hauling sediment from the staging area to the SPS areas. It is assumed that trucks on the haul road would be limited to a speed of 15 miles per hour. At that speed, the pass-by noise of a heavy truck is 75 dBA at a distance of 50 feet. There would be approximately 81 round trips per day, and the hourly average noise level for that volume of trips would be approximately 61 dBA at 50 feet. North of the Middle SPS, the haul road is on the west side of the Upper SPS and the truck noise would be heard at the homes to the west, which are approximately 400 to 600 feet away. The pass-by short noise levels are estimated approximately 62 to 64 dBA, and the hourly average noise levels would be approximately 58 to 60 dBA. While these noise levels would be audible, they would not interfere with normal speech. These noise levels would exceed the City of Arcadia 55 dBA limit, resulting in a significant impact. Mitigation measures specified for the proposed project would also be required for Alternative 2. As with the proposed project, Alternative 2 would result in significant unavoidable impacts after mitigation. However, the overall impact to noise would be greater than the proposed project due to the longer truck hauling route and additional sensitive receptors that would be affected.

RECREATION

Impacts to recreation under Alternative 2 would be similar to those under the proposed project. Alternative 2 would use the Wilderness Park as a staging area because the conveyor belt would end at the proposed staging area located in an open dirt area immediately north of the Wilderness Park's northwest

parking lot, which is used to access the Santa Anita Headworks. However, because trucks would travel across the Wilderness Park parking lot from the proposed staging area, mitigation measure REC-A would be required for pedestrian and vehicle safety. As with the proposed project, Alternative 2 would not result in operational impacts to recreation with implementation of mitigation.

TRANSPORTATION/CIRCULATION

Impacts to Transportation/Circulation would be similar for Alternative 2 as for the proposed project. Alternative 2 would not result in any permanent changes in existing roadway design or any uses which would be incompatible with area traffic. Upon completion of project construction, traffic conditions would return to current conditions and there would be no traffic impacts during the operational phase of Alternative 2. Alternative 2 would generate 154 daily forecast trips, which includes 47 mid-day peak hour forecast trips. Because the anticipated number of trips is similar to the proposed project all intersection and street segment LOS would remain unchanged and meet acceptable Level of Service (LOS) standards during construction of this alternative, like the proposed project. Mitigation measure TRANS-A provided in Section 3.9, Transportation/Circulation, would reduce parking impacts from this alternative to a less than significant level. Impacts of Alternative 2 to traffic and parking would be similar to the proposed project.

7.2.2.2 FINDINGS

Specific economic, legal, social, technological, and other considerations make Alternative 2 infeasible and less desirable than the proposed project. Impacts associated with Alternative 2 would be similar to the proposed project for aesthetics, biological resources, cultural resources, geology and soils, hydrology and water quality, recreation, and transportation and circulation. As with the proposed project, Alternative 2 would not result in off-site site truck hauling trips, since the sediment would be placed in the Lower and Middle SPS areas; therefore, traffic impacts on the surrounding neighborhood streets would be only from construction worker trips. However, Alternative 2 would result in greater impacts associated with air quality and noise because of the need for trucks sediment hauling operations, instead of the electric conveyor belt as in the proposed project. Alternative 2 does not achieve a level of environmental protection that warrants approval in lieu of the approved project and it is recommended that the County rejects this alternative.

7.2.3 CONVEY TO THE CLEARING OF THE NORTH SPS, TRUCK OFF-SITE (ALTERNATIVE 3)

Alternative 3, like the proposed project, would remove approximately 500,000 cubic yards of sediment from Santa Anita Reservoir. Alternative 3 would convey the sediment to a staging area above the Upper SPS area, where it would be loaded onto trucks and hauled to an off-site site disposal location in Irwindale (Manning Pit SPS). Trucks would exit the Santa Anita SPS via Elkins Avenue, turn left on Santa Anita Avenue, enter the 210 Freeway, exit at Irwindale Avenue, turn left into Gladstone Street, and

turn right into Vincent Avenue to enter Manning Pit SPS, in the City of Irwindale. Use of the Middle SPS would not be required for this alternative. All other characteristics of Alternative 3 would be the same as the proposed project. As with the proposed project, areas along the maintenance road to the south of the Wilderness Park, where a stream crosses the existing access road would, require vegetation clearing to allow for adequate truck access. It is estimated that approximately 20 trucks would be used at one time to transport sediment and that approximately 160 truck trips would occur per eight-hour day.

Impacts associated with Alternative 3 would be similar to the proposed project for geology and soils, hydrology and water quality, and recreation. However, some impacts would be greater than the proposed project including air quality, noise, and transportation and circulation. These additional impacts are associated with the use of trucks for hauling sediment off-site site to the Manning Pit SPS. Alternative 3 would result in reduced impacts to aesthetics, cultural resources, and biological resources compared to the proposed project.

7.2.3.1 Environmental Effects

Aesthetics

Aesthetic and visual impacts associated with Alternative 3 would be less than those associated with the proposed project. Alternative 3 would not result in alterations to the scenic quality of any buildings or other scenic resources and would not affect designated scenic views. No significant aesthetic impacts would be anticipated due to the location of the dam and reservoir and the proposed modification to the riser would not be visible to any viewers after the construction would be complete. This alternative would use the Manning Pit SPS instead of the SPS areas on the project site; therefore, no aesthetic impacts would result from construction activities related to Alternative 3, and no mitigation measures would be required.

Air Quality

Under Alternative 3, the amount of sediment excavated and type of construction activities would be similar to the proposed project. The only difference is that the sediment would be hauled to an off-site site disposal location in Irwindale (Manning Pit SPS). This alternative would have a longer trip distance for hauling the excavated sediment. In addition, Alternative 3 would require clearing, grubbing and grading of various locations along the existing access road to allow for hauling activities. Because the Middle SPS would not be used for depositing the sediment, a site preparation phase is not required for Alternative 3. The worst case, maximum daily project emissions would exceed SCAQMD daily thresholds for NO_x, PM_{10} and $PM_{2.5}$ as shown in Table 7-3.

TABLE 7-3 ALTERNATIVE 3 ESTIMATED DAILY CONSTRUCTION EMISSIONS (UNMITIGATED)

Construction Activity	Estimated Emissions (lbs/day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Construction of Dam Riser	4	38	15	<1	2	1
Maximum Overlap of Activities						
Construction of Dam Riser	4	38	15	<1	2	1
Sediment Excavation at Dam, Transfer to Trucks and Haul to SPS	17	**156**	80	<1	**235**	55
Sediment Placement at SPS	6	45	24	<1	**230**	50
Total for maximum overlap	27	**240**	119	<1	**466**	**106**
Sediment Excavation, Transfer and Placement Alone						
	23	**202**	104	<1	**465**	**104**
Daily Thresholds for Construction Emissions	***75***	***100***	***550***	***150***	***150***	***55***

Totals may not add due to rounding
Note: Construction assumptions, including the estimated number and type of construction equipment, construction-related trips, area of disturbance, etc., are presented in the URBEMIS data sheets in Appendix F.
Bold – emissions exceeds threshold

Emissions with mitigation would exceed the daily thresholds for NO_X under Alternative 3, as shown in Table 7-4. Worst case daily NO_x, PM_{10}, and $PM_{2.5}$ emissions would be higher than the proposed action since this alternative involves hauling the sediment off-site site.

TABLE 7-4 ALTERNATIVE 3 ESTIMATED DAILY CONSTRUCTION EMISSIONS (MITIGATED)

Construction Activity	Estimated Emissions (lbs/day)					
	VOC [a]	**NO_X**	**CO** [a]	**SO_X** [a]	**PM_{10}**	**$PM_{2.5}$**
Construction of Dam Riser	4	23	15	<1	2	1
Maximum Overlap of Activities						
Construction of Dam Riser	4	23	15	<1	2	1
Sediment Excavation at Dam, Transfer to Trucks and Haul to SPS	17	94	80	<1	38	13
Construction of Dam Riser	6	27	24	<1	32	9
Total for maximum overlap	27	**144**	119	<1	72	23
Sediment Excavation, Transfer and Placement Alone						
	23	**121**	104	<1	70	22
Daily Thresholds for Construction Emissions	***75***	***100***	***550***	***150***	***150***	***55***

Totals may not add due to rounding
a – Mitigation measures are not required for these pollutants
Note: Construction assumptions, including the estimated number and type of construction equipment, construction-related trips, area of disturbance, etc., are presented in the URBEMIS data sheets in Appendix F.
Bold – emissions exceeds threshold

The air quality impact form Alternative 3 after the required mitigation would be 144 lbs/day for NOx during the overlap of construction from the dam riser, sediment excavation, and sediment conveyance, which exceeds the significance threshold. This is avoided with the proposed project. Under the proposed

project, the estimated project emissions for all construction activities, with the identified mitigation measures, would be reduced below their threshold levels during and after the maximum construction overlap, as shown in Table 7-5.

Due to the hauling activities, Alternative 3 would expose nearby sensitive receptors to substantial amounts of pollutant concentrations. Alternative 3 would result in increased impacts to the surrounding neighborhood streets because approximately 160 truck trips per day are anticipated to leave the project site. Furthermore, Alternative 3 would result in human health effects form toxic air contaminants during trucking off-site activities that are not part of the analysis in this EIR. The impact of Alternative 3 would be significant and unavoidable, and would be greater than the proposed project.

Table 7-5 Proposed Project Estimated Daily Construction Emissions (mitigated)

Construction Activity	**Estimated Emissions (lbs/day)**					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
SPS preparation	2	19	11	<1	19	5
Dam Riser construction	4	23	15	<1	2	1
Sediment excavation, transfer and placement	15	74	71	<1	65	18
Maximum Overlap (concurrent construction activities)						
Dam Riser construction	4	23	15	<1	2	1
Sediment excavation and conveyance	9	42	41	<1	33	10
Sediment placement	6	31	30	<1	32	9
Total for maximum overlap	19	97	85	<1	67	20
Daily Thresholds for Construction Emissions	***75***	***100***	***550***	***150***	***150***	***55***

Totals may not add due to rounding

Note: Construction assumptions, including the estimated number and type of construction equipment, construction-related trips, area of disturbance, etc., are presented in the URBEMIS data sheets in Appendix B.

Bold – emissions exceeds threshold

BIOLOGICAL RESOURCES

Alternative 3 would result in fewer biological resources impacts than the proposed project because the use of the Middle SPS would not be required for this alternative. The Middle SPS also contains a graded, bare access road. Under Alternative 3, tree and vegetation removal would not be required. Therefore,

Alternative 3 would not impact the vegetation communities within the Middle SPS, which include coastal sage scrub, coast live oak woodland, Riversidean alluvial fan sage scrub, and disturbed Riversidean alluvial fan sage scrub. Under Alternative 3, the sediment would be transported to Irwindale, and placed in the Manning Pit SPS. No impacts associated with biological resources would occur as a result of Alternative 3 because no vegetation would be removed.

Under Alternative 3, no jurisdictional waters in the Middle SPS would be impacted by the construction activities under this alternative. However, jurisdictional waters in the reservoir would still be affected by this alternative; therefore, the regulatory permit requirements would be similar to those described for the proposed project. To minimize impacts to jurisdictional waters, mitigation measure BIO-E has been provided. BIO-E requires adherence to the Clean Water Act Section 404 (b)(1) guidelines to be followed as a framework for compensatory mitigation.

CULTURAL RESOURCES

Alternative 3 would require clearing, grubbing and grading of various locations along the existing access road. Because Alternative 3 involves grubbing and ground disturbing activities, it is possible that surface artifacts obscured by surface vegetation or subsurface artifacts may be encountered by these construction activities. Although, no archaeological resources were encountered during the course of the archaeological survey, native Americans are known to have inhabited the San Gabriel Valley in prehistory. Mitigation measure CUL-A has been proposed to reduce any impacts to any archaeological resources are encountered.

Similar to the proposed project, this alternative would not significantly affect any historic buildings or cultural significance on the site. Alternative 3 would not have any significant impacts to historical resources.

The proposed project area does not contain any formal cemeteries. Archival research and the archaeological survey in connection with the present project did not indicate the presence of any known human remains in the project area. In the event that any human remains are encountered, mitigation measure CUL-B has been provided. CUL-B requires the Los Angeles County Coroner's Office to be contacted and all activities in the vicinity of the discovery to cease until appropriate disposition of the remains is determined.

GEOLOGY AND SOILS

As with the proposed project, Alternative 3 is not located within an Alquist-Priolo Earthquake Fault Zone or on expansive soils and would not involve the installation of septic tanks or construction of habitable structures. Disturbed sediments are more susceptible to erosion; however, excavation, grading, and sediment placement activities would be in accordance with LACDPW regulations for SPS sites, which establish protocols for proper grading and placement of sediment at SPS sites. Similar to the proposed project, this alternative would be required to adhere to all applicable construction standards with regard to

erosion control and applicable seismic design codes to reduce impacts associated with loss of topsoil and liquefaction, to a less than significant level.

The sediment would be placed in the Manning Pit SPS, which is currently used as a SPS for the region. This SPS would not be expected to be subject to subsidence or collapse. This alternative would have similar geological impacts as identified for the proposed project except the SPS seismic impacts would be off-site site compared to in the Middle and Lower SPS for the proposed project. As with the proposed project, impacts to geology and soils would be less than significant, and no mitigation is required.

HYDROLOGY AND WATER QUALITY

Under Alternative 3, construction-related water quality and hydrology impacts would be similar to the proposed project. During construction, adherence to the BMPs established in the SWPPP would reduce sediment-laden runoff, prevent the migration of contaminants from construction areas to the adjacent residential uses, and ensure that stormwater discharges would not violate applicable water quality standards. In the event construction of the proposed project requires the disturbance of soil during the rainy season (October 1 through April 15) a WWECP would be developed, which would include measures to prevent on-site erosion that the contractor would be required to implement. Excavation, grading, and sediment placement activities would also be undertaken in accordance with LACDPW regulations for SPS sites, which establish protocols for proper design of slopes and temporary sediment collecting structures. Adherence to these regulations and site design requirements would be enforced through plan check reviews and site inspection following the issuance of grading permits. Accordingly, impacts related to hydrology and water quality would be less than significant.

NOISE

Under Alternative 3, the excavated sediment would be conveyed to a different staging area located above the Upper SPS and hauled by truck to an off-site site placement location in Irwindale (Manning Pit SPS). The clearing, grubbing, and grading along the existing access road and the preparation of a staging area above the Upper SPS would generate short-term noise levels to residents west of the Upper SPS, in addition to the truck hauling activities originating out of this location. The on-site truck haul route from the Wilderness Park parking lot staging area to the Lower SPS would be eliminated under Alternative 3, and the residents along this segment would not be affected as they are under the proposed project. However, Alternative 3 would result in a longer truck haul route in proximity to sensitive receptors in the residential area west of the SPS. The haul route would pass through residential areas west of the Middle SPS to access the 210 Freeway, and then exit on a commercial primary arterial to an industrial area for placement in an industrial area. Specifically, the haul trucks would exit the Santa Anita SPS to the west into the residential area via Elkins Avenue, Santa Anita Avenue, the 210 Freeway, Irwindale Avenue, Gladstone Street, and Vincent Avenue to enter Manning Pit SPS in the City of Irwindale. The trucks to transport sediment would result in approximately 160 one way truck trips per eight-hour day along this

approximately 10-mile route. Noise sensitive receptors are primarily located along Elkins Avenue and Santa Anita Avenue west of the SPS.

The on-site haul route for the proposed project was analyzed based on speed limits of 15 mph on unimproved dirt pathways. The off-site site haul route through the residential area west of the SPS would be on improved paved streets with a speed limit of 25 mph on Elkins Avenue and 35 mph on Santa Anita Avenue. Therefore, the noise generated from the haul trucks would be greater at this higher speed than on the unpaved haul roads that would be used for the proposed project. Both Elkins Avenue and Santa Anita Avenue have residences adjacent to the roadways.

Based on data from the project traffic report, the existing average daytime hourly traffic noise level on Elkins Avenue is estimated at 52 dBA Leq at a distance of 50 feet from the center of the roadway. The addition of 25 heavy truck trips in one hour would increase the average noise level to 62 dBA Leq. These noise level estimates assume that the trucks would travel at the posted speed limit. The existing average daytime hourly traffic noise level on Santa Anita Avenue between Elkins Avenue and Sierra Madre Boulevard is estimated at 57 dBA Leq at a distance of 50 feet from the center of the roadway. The addition of 25 heavy truck trips in one hour would increase the average noise level to 64 dBA Leq. On Santa Anita Avenue south of Sierra Madre Boulevard, the existing estimated noise level of 60 dBA Leq would be increased to 65 dBA Leq with the addition of 25 heavy trucks per hour. Individual truck passby noise levels would be in the range of 75 to 80 dBA at a distance of 50 feet.

On Elkins Avenue, the truck noise would increase the average daytime noise level from below the City of Arcadia 55 dBA standard to above the standard, and the increase of 10 dBA would be significant. On Santa Anita Avenue, the existing noise levels exceed the 55 dBA standard; the noise level increases of 7 dBA north of Sierra Madre Boulevard and 5 dBA south of Sierra Madre Boulevard would be heard and may be considered disturbing. The traffic noise impacts would be temporary and significant. No mitigation in the nature of barriers would be feasible. While reduced speeds would reduce truck noise levels, this would create additional traffic and safety impacts. Therefore, the impact is considered significant and unavoidable.

RECREATION

Impacts to recreation under Alternative 3 would be similar to those under the proposed project. Alternative 3 would not require the staging area in the Wilderness Park because the conveyor belt would extend over the Wilderness Park parking lot, south on the fire access roads, past the upper portion of the debris basin, and would terminate at the upper portion of the Lower SPS. The proposed construction in Alternative 3 would only occur during the weekdays; therefore, visitors of Wilderness Park on the weekends would not be affected by the proposed construction activities. Existing recreational facilities within the project vicinity would not be impacted during the construction periods and would maintain service to current users. As with the proposed project, Alternative 3 would not result in operational impacts to recreation.

Similar to the proposed project, Alternative 3 would not include any long-term changes to the existing operations of the Wilderness Park. Therefore, Alternative 3 would not increase demand for neighborhood or regional parks or other recreational facilities. No significant impacts to recreation would occur as a result of Alternative 3; therefore, no mitigation measures have been proposed.

TRANSPORTATION/CIRCULATION

Under Alternative 3, construction traffic is not sufficient to make a significant difference in the calculated mid-day delay at the study intersections, even with the addition of 476 daily forecast trips, compared to the 154 daily forecast trips of the proposed project. Alternative 3 would generate noticeably more traffic compared to the proposed project as this alternative involves the transport of sediment on public roadways from the project site.

Alternative 3 would have the greatest increase in traffic volumes on Highland Oaks Drive and Elkins Avenue as traffic volumes are lighter than those on the Santa Anita Avenue roadway segments. Alternative 3 would increase traffic on area roadways on a percentage basis approximately four times more than the proposed project. However, all roadway segments have sufficient capacity to satisfactorily handle construction-generated traffic. Two-lane collector roadways (such as Santa Anita Avenue and Elkins Avenue) can operate at satisfactory levels of service with daily volumes approaching 10,000 vehicles per day. Two-lane local/residential roadways (such as Highland Oaks Drive) can similarly operate with daily volumes approaching 6,000 vehicles per day. The forecasted volumes on the roadways in the project vicinity are well below the upper-end values for daily volumes for both collector roadways and local/residential roadways.

As there would be capacity to handle project-related truck volumes and employee vehicle traffic under Alternative 3, and as the project area roadway segments are projected to operate at acceptable LOS values, there would not be significant traffic impacts at the roadway segment locations. LOS E or F operations are not likely during the Alternative 3, and therefore this alternative, like the proposed project, would not create any significant impacts that would require capacity-based mitigation measures.

The local roadways have sufficient geometric characteristics to accommodate construction-generated traffic for Alternative 3. The roadways in the project vicinity are relatively narrow and are not well suited to handle heavy truck traffic. For example, Elkins Avenue is 36-feet wide, which would provide two travel lanes of nine feet in width each when on-street parking area (each of eight feet in width) are occupied by vehicles. In order to facilitate the movement of large truck to haul sediment, as would be required in Alternative 3, restrictions of on-street parking along the narrower portions of Highland Oaks Drive, Elkins Avenue, and Santa Anita Avenue may be required during sediment haul hours.

It was assumed for the traffic analysis that off-site truck trip scheduling under Alternative 3 would be conducted outside of the a.m. peak traffic period (7:00 a.m. to 9:00 a.m.) and the p.m. peak traffic period

(4:00 p.m. to 6:00 p.m.) Such scheduling would avoid any potential overlap with peak-hour commute traffic to and from the local residential areas and project-related truck trips.

Alternative 3 would require truck trips be spaced and trucks to be held at the eastern end of Elkins Avenue and at the Irwindale SPS to provide gaps between trucks and avoid the stacking of trucks on local residential streets within the study area.

A public school is located along the east side of Santa Anita Avenue immediately adjacent to the intersection of Santa Anita Avenue and Virginia Drive. This intersection has been signalized to provide safe access during school pick-up/drop-off activity periods. The routing of project trucks under Alternative 3 during off-peak periods would avoid conflicts with pick-up/drop-off activity at the school during the a.m. peak period, but could overlap with afternoon activity at the school. Scheduling of truck trips to avoid stacking would avoid the creation of any significant impacts in the vicinity of this school.

Alternative 3 impacts to the local roadways would be greater than the proposed project; however, due construction related trips and increase volume of the local roadways, intersections would operate at acceptable LOS during the short-term construction-related traffic impact of this alternative. Mitigation measure TRANS-A provided in Section 3.9, Transportation/Circulation, would reduce parking impacts from this alternative to a less than significant level.

7.2.3.2 FINDINGS

Specific economic, legal, social, technological, and other considerations make Alternative 3 infeasible and less desirable than the proposed project. Alternative 3 would result in increased impacts to the surrounding neighborhood streets because approximately 160 truck trips per day (that is approximately one trip every 10 minutes) are anticipated to leave the project site. Impacts associated with Alternative 3 would be similar to the proposed project for geology and soils, hydrology and water quality, and recreation. Conversely, some impacts in Alternative 3 would be greater than the proposed project including air quality, noise, and transportation and circulation. Moreover, air quality would be a significant unavoidable impact, which would not be the case under the proposed project. In addition, Alternative 3 would use a truck haul route through local residential neighborhood. These additional impacts are associated with the use of trucks for hauling sediment off-site site to the Manning Pit SPS. While Alternative 3 would result in reduced impacts to aesthetics and biological resources, the impacts to air quality and noise on the surrounding neighborhood would be greater than the proposed project. The air quality impact from Alternative 3 after the required mitigation would be 144 lbs/day for NOx during the overlap of construction from the dam riser, sediment excavation, and sediment conveyance, which exceeds the significance threshold. Furthermore, Alternative 3 would result in human health effects from TACs during trucking off-site site activities that are not part of the analysis in this EIR. Due to the additional impacts associated with construction, Alternative 3 does not achieve a level of environmental protection that warrants approval in lieu of the approved project and it is recommended that the County reject this alternative.

7.2.4 CONVEY TO WILDERNESS PARK, TRUCK OFF-SITE (ALTERNATIVE 4)

Alternative 4, like the proposed project, would remove approximately 500,000 cubic yards of sediment from Santa Anita Reservoir. Alternative 4 would convey the sediment to the Wilderness Park staging area, located above and within part of the park's western parking lot, truck the sediment along the existing maintenance road, truck the sediment to Irwindale, and place the sediment in the Manning Pit SPS. All other characteristics of Alternative 4 would remain the same as the proposed project. Trucks would exit Santa Anita SPS via Elkins Avenue, turn left on Santa Anita Avenue, enter the 210 Freeway, exit at Irwindale Avenue, turn left into Gladstone Street, and turn right into Vincent Avenue to enter Manning Pit SPS in the City of Irwindale. Alternative 4 would require clearing, grubbing, and grading at various locations along the existing maintenance road below Santa Anita Dam. It is estimated that about 20 trucks would be used at one time to transport sediment and that approximately 160 truck trips would occur per eight-hour day. Impacts associated with Alternative 4 would be similar to the proposed project for cultural resources, geology and soils, hydrology and water quality, and recreation. However, some impacts would be greater than the proposed project including air quality, noise, and transportation and circulation. These additional impacts are associated with the use of trucks for hauling sediment off-site site to the Manning Pit SPS. Alternative 4 would result in reduced impacts to aesthetics and biological resources compared to the proposed project.

7.2.4.1 ENVIRONMENTAL EFFECTS

AESTHETICS

Aesthetic and visual impacts associated with this Alternative 4 would be less to those associated with the proposed project. Alternative 4 would not result in alterations to the scenic quality of any buildings or other scenic resources and would not affect designated scenic views. No significant aesthetic impacts would be anticipated, due to the location of the dam and reservoir and the proposed modification to the riser would not be visible to any viewers after the construction would be complete. This alternative would use the Manning Pit SPS instead of the SPS areas on the project site; therefore, no aesthetic impacts would result from construction activities related to Alternative 4, and no mitigation measures are required.

AIR QUALITY

Alternative 4 is similar to Alternative 3 except that the sediment would be conveyed to the Wilderness Park staging area and then hauled to the Manning Pit SPS. The trip distance would be slightly higher in this case. Worst case emissions daily emissions associated with Alternative 4 would exceed the SCAQMD thresholds for NO_x, PM_{10} and $PM_{2.5}$ as shown in Chapter 5.0 of the Final EIR. The mitigated

emissions would not exceed PM_{10} and $PM_{2.5}$ thresholds despite the implementation of standard Rule 403 measures. Project emissions with mitigation would exceed the daily thresholds for NO_X. Worst case daily NO_x emissions would be higher than the proposed action since this alternative involves hauling the sediment over a longer distance. The impact of Alternative 4 would be significant and unavoidable.

BIOLOGICAL RESOURCES

Alternative 4 would result in fewer biological resources impacts than the proposed project because the use of the Middle SPS would not be required for this alternative. The Middle SPS also contains a graded, bare access road. Under Alternative 4, tree and vegetation removal would not be required. Therefore, Alternative 4 would not impact the vegetation communities within the Middle SPS, which include coastal sage scrub, coast live oak woodland, Riversidean alluvial fan sage scrub, and disturbed Riversidean alluvial fan sage scrub. Under Alternative 4, the sediment would be transported to Irwindale, and placed in the Manning Pit SPS. No impacts associated with biological resources would occur as a result of Alternative 4 because no vegetation would be removed.

Under Alternative 4, no jurisdictional waters in the Middle SPS would be impacted by the construction activities under this alternative. However, jurisdictional waters in the reservoir would still be affected by this alternative; therefore, the regulatory permit requirements would be similar to those described for the proposed project. To minimize impacts to jurisdictional waters, mitigation measure BIO-E has been provided. BIO-E requires adherence to the Clean Water Act Section 404 (b)(1) guidelines to be followed as a framework for compensatory mitigation.

CULTURAL RESOURCES

Alternative 4 would require clearing, grubbing and grading of various locations along the existing access road. Because Alternative 4 involves grubbing and ground disturbing activities, it is possible that surface artifacts obscured by surface vegetation or subsurface artifacts may be encountered by these construction activities. Although, no archaeological resources were encountered during the course of the archaeological survey, native Americans are known to have inhabited the San Gabriel Valley in prehistory. Mitigation measure CUL-A has been proposed to reduce any impacts to any archaeological resources are encountered.

Similar to the proposed project, this alternative would not significantly affect any historic buildings or cultural significance on the site. Alternative 4 would not have any significant impacts to historical resources.

The proposed project area does not contain any formal cemeteries. Archival research and the archaeological survey in connection with the present project did not indicate the presence of any known human remains in the project area. In the event that any human remains are encountered, mitigation measure CUL-B has been provided. CUL-B requires the Los Angeles County Coroner's Office to be

contacted and all activities in the vicinity of the discovery to cease until appropriate disposition of the remains is determined.

GEOLOGY AND SOILS

As with the proposed project, Alternative 4 is not located within an Alquist-Priolo Earthquake Fault Zone or on expansive soils and would not involve the installation of septic tanks or construction of habitable structures. Disturbed sediments are more susceptible to erosion; however, excavation, grading, and sediment placement activities would be in accordance with LACDPW regulations for SPS sites, which establish protocols for proper grading and placement of sediment at SPS sites. Similar to the proposed project, this alternative would be required to adhere to all applicable construction standards with regard to erosion control and applicable seismic design codes to reduce impacts associated with loss of topsoil and liquefaction, to a less than significant level.

The sediment would be placed in the Manning Pit SPS, which is currently used as a SPS for the region. This SPS would not be expected to be subject to subsidence or collapse. This alternative would have similar geological impacts as identified for the proposed project except the SPS seismic impacts would be off-site site compared to in the Middle and Lower SPS for the proposed project. As with the proposed project, impacts to geology and soils would be less than significant, and no mitigation is required.

HYDROLOGY AND WATER QUALITY

Under Alternative 4, construction-related water quality and hydrology impacts would be similar to the proposed project. During construction, adherence to the BMPs established in the SWPPP would reduce sediment-laden runoff, prevent the migration of contaminants from construction areas to the adjacent residential uses, and ensure that stormwater discharges would not violate applicable water quality standards. In the event construction of the proposed project requires the disturbance of soil during the rainy season (October 1 through April 15) a WWECP would be developed, which would include measures to prevent on-site erosion that the contractor would be required to implement. Excavation, grading, and sediment placement activities would also be undertaken in accordance with LACDPW regulations for SPS sites, which establish protocols for proper design of slopes and temporary sediment collecting structures. Adherence to these regulations and site design requirements would be enforced through plan check reviews and site inspection following the issuance of grading permits. Accordingly, impacts related to hydrology and water quality would be less than significant.

NOISE

Alternative 4 is similar to Alternative 3, except that the sediment would be conveyed to the Wilderness Park staging area and hauled south along the SPS haul route, and would then follow the same route as Alternative 3 to Irwindale (the Manning Pit SPS). Therefore, the off-site hauling noise impacts would be the same as Alternative 3 and would be significant and unavoidable. Noise impacts would be greater than the proposed project under this alternative.

RECREATION

Impacts to recreation under Alternative 4 would be similar to those under the proposed project. The proposed construction in Alternative 4 would only occur during the weekdays; therefore, visitors of Wilderness Park on the weekends would not be affected by the proposed construction activities. Existing recreational facilities within the project vicinity would not be impacted during the construction periods and would maintain service to current users. As with the proposed project, Alternative 4 would not result in operational impacts to recreation.

Similar to the proposed project, Alternative 4 would not include any long-term changes to the existing operations of the Wilderness Park. Therefore, Alternative 4 would not increase demand for neighborhood or regional parks or other recreational facilities. No significant impacts to recreation would occur as a result of Alternative 4; therefore, no mitigation measures have been proposed.

TRANSPORTATION/CIRCULATION

Under Alternative 4, construction traffic is not sufficient to make a significant difference in the calculated mid-day delay at the study intersections, even with the addition of 476 daily forecast trips, compared to the 154 daily forecast trips of the proposed project. Alternative 4 would generate noticeably more traffic compared to the proposed project as this alternative involves the transport of sediment on public roadways from the project site.

Alternative 4 would have the greatest increase in traffic volumes on Highland Oaks Drive and Elkins Avenue as traffic volumes are lighter than those on the Santa Anita Avenue roadway segments. Alternative 4 would increase traffic on area roadways on a percentage basis approximately four times more than the proposed project. However, all roadway segments have sufficient capacity to satisfactorily handle construction-generated traffic. Two-lane collector roadways (such as Santa Anita Avenue and Elkins Avenue) can operate at satisfactory levels of service with daily volumes approaching 10,000 vehicles per day. Two-lane local/residential roadways (such as Highland Oaks Drive) can similarly operate with daily volumes approaching 6,000 vehicles per day. The forecasted volumes on the roadways in the project vicinity are well below the upper-end values for daily volumes for both collector roadways and local/residential roadways.

As there would be capacity to handle project-related truck volumes and employee vehicle traffic under Alternative 4, and as the project area roadway segments are projected to operate at acceptable LOS values, there would not be significant traffic impacts at the roadway segment locations. LOS E or F operations are not likely during the Alternative 4, and therefore this alternative, like the proposed project, would not create any significant impacts that would require capacity-based mitigation measures.

The local roadways have sufficient geometric characteristics to accommodate construction-generated traffic for Alternative 4. The roadways in the project vicinity are relatively narrow and are not well suited to handle heavy truck traffic. For example, Elkins Avenue is 36-feet wide, which would provide two travel lanes of nine feet in width each when on-street parking area (each of eight feet in width) are occupied by vehicles. In order to facilitate the movement of large truck to haul sediment, as would be required in Alternative 4, restrictions of on-street parking along the narrower portions of Highland Oaks Drive, Elkins Avenue, and Santa Anita Avenue may be required during sediment haul hours.

It was assumed for the traffic analysis that off-site truck trip scheduling under Alternative 4 would be conducted outside of the a.m. peak traffic period (7:00 a.m. to 9:00 a.m.) and the p.m. peak traffic period (4:00 p.m. to 6:00 p.m.) Such scheduling would avoid any potential overlap with peak-hour commute traffic to and from the local residential areas and project-related truck trips.

Alternative 4 would require truck trips be spaced and trucks to be held at the eastern end of Elkins Avenue and at the Irwindale SPS to provide gaps between trucks and avoid the stacking of trucks on local residential streets within the study area.

A public school is located along the east side of Santa Anita Avenue immediately adjacent to the intersection of Santa Anita Avenue and Virginia Drive. This intersection has been signalized to provide safe access during school pick-up/drop-off activity periods. The routing of project trucks under Alternative 4 during off-peak periods would avoid conflicts with pick-up/drop-off activity at the school during the a.m. peak period, but could overlap with afternoon activity at the school. Scheduling of truck trips to avoid stacking would avoid the creation of any significant impacts in the vicinity of this school.

Alternative 4 impacts to the local roadways would be greater than the proposed project; however, due construction related trips and increase volume of the local roadways, intersections would operate at acceptable LOS during the short-term construction-related traffic impact of this alternative. Mitigation measure TRANS-A provided in Section 3.9, Transportation/Circulation, would reduce parking impacts from this alternative to a less than significant level.

7.2.4.2 FINDINGS

Specific economic, legal, social, technological, and other considerations make Alternative 4 infeasible and less desirable than the proposed project. While Alternative 4 would result in reduced impacts to aesthetics and biological resources, impacts to air quality, noise, and transportation and circulation would be greater compared to the proposed project. Alternative 4 does not achieve a level of environmental protection that warrants approval in lieu of the approved project and it is recommended that the County reject this alternative.

Specific economic, legal, social, technological, and other considerations make Alternative 4 infeasible and less desirable than the proposed project. Alternative 4 would result in increased impacts to the

surrounding neighborhood streets because approximately 160 truck trips per day (that is approximately one trip every 10 minutes) are anticipated to leave the project site. Impacts associated with Alternative 4 would be similar to the proposed project for geology and soils, hydrology and water quality, and recreation. Conversely, some impacts in Alternative 4 would be greater than the proposed project including air quality, noise, and transportation and circulation. Moreover, air quality would be a significant unavoidable impact, which would not be the case under the proposed project. In addition, Alternative 4 would use a truck haul route through local residential neighborhood. These additional impacts are associated with the use of trucks for hauling sediment off-site site to the Manning Pit SPS. While Alternative 4 would result in reduced impacts to aesthetics and biological resources, the impacts to air quality and noise on the surrounding neighborhood would be greater than the proposed project. The air quality impact from Alternative 4 after the required mitigation would be 168 lbs/day for NOx during the overlap of construction from the dam riser, sediment excavation, and sediment conveyance, which exceeds the significance threshold. Furthermore, Alternative 4 would result in human health effects from TACs during trucking off-site site activities that are not part of the analysis in this EIR. Due to the additional impacts associated with construction, Alternative 4 does not achieve a level of environmental protection that warrants approval in lieu of the approved project and it is recommended that the County reject this alternative.

The following alternatives are evaluated in this EIR and are summarized in Table 7-6. Table 7-6 provides a comparison of alternatives to the proposed project and rates each impact as less, similar, or greater than the corresponding impacts of the proposed project. The range of alternatives studied in the EIR reflects a reasonable range of alternatives that would potentially be capable of reducing the environmental effects of the proposed project, while accomplishing most of the basic project objectives. The alternatives analysis is sufficient to inform the Board of Supervisors and the public regarding the tradeoffs between the degree to which alternatives to the proposed project could reduce environmental impacts and the corresponding degree to which the alternatives would hinder the County's ability to achieve its project objectives. Based on impacts identified in the EIR, and other reasons described above, it is recommended that adoption and implementation of the Project as approved is the most desirable, feasible, and appropriate action.

TABLE 7-6 COMPARISON OF IMPACTS FOR THE PROPOSED PROJECT AND THE ALTERNATIVES

Impact Area	Proposed Project	Alternative 1: No Project	Alternative 2: Convey to Wilderness Park, Truck to SPS	Alternative 3: Convey to Clearing of the North SPS, Truck Off Site	Alternative 4: Convey to Wilderness Park, Truck Off Site
Aesthetics	III	IV (Less)	III (Similar)	IV (Less)	IV (Less)
Air Quality	II	IV (Less)	I (Greater)	I (Greater)	I (Greater)
Biological Resources	II	IV (Less)	II (Similar)	IV (Less)	IV (Less)
Cultural Resources	II	IV (Less)	II (Similar)	II (Similar)	II (Similar)
Geology and Soils	III	IV (Less)	III (Similar)	III (Similar)	III (Similar)
Hydrology and Water Quality	III	IV (Less)	III (Similar)	III (Similar)	III (Similar)
Noise	I	IV (Less)	I (Greater)	I (Greater)	I (Greater)
Recreation	II	IV (Less)	II (Similar)	II (Similar)	II (Similar)
Transportation and Circulation	II	IV (Less)	II (Similar)	II (Greater)	II (Greater)

Notes:

I: Significant Unavoidable Impact
II: Significant Impact Unless Mitigated
III: Less Than Significant Impact
IV: No Impact

Less: Impact is lower in magnitude than impacts of the proposed project
Similar: Impact is similar in magnitude to impacts of the proposed project
Greater: Impact is greater in magnitude than impacts of the proposed project

CHAPTER 8
STATEMENT OF OVERRIDING CONSIDERATIONS

Pursuant to CEQA Section 21081(b) and the CEQA Guidelines Section 15093, the LACDPW has balanced the benefits of the proposed Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project Final EIR against the following unavoidable adverse impacts associated with the proposed project and has adopted all feasible mitigation measures. The LACDPW has also examined alternatives to the proposed project, and has determined that adoption and implementation of the proposed project is the most desirable, feasible, and appropriate action. The other alternatives are rejected as infeasible based on consideration of the relevant factors discussed in Chapter 7.

8.1 SIGNIFICANT UNAVOIDABLE IMPACTS

Based on the information and analysis set forth in the Final EIR and the record of proceedings, construction of the proposed project would result in significant impacts related to – construction-related noise and greenhouse gas (GHG) emissions. Construction-related noise impacts at the Middle and Lower SPS areas would exceed the City of Arcadia Noise Element of the General Plan and noise ordinance of the Arcadia Municipal Code. As many as 10 to 15 pieces of equipment could be operating in the dam and reservoir area at one time. For this project, a maximum noise level of 93 dBA at a distance of 50 feet from the center of construction activities is assumed to occur during the simultaneous excavation of sediment at the reservoir and modification to the dam outlet structures. A maximum of 90 dBA at 50 feet is assumed for the construction equipment activity at the Middle and Lower SPS areas. Although construction activities would be limited to the hours between 7:00 a.m. and 7:00 p.m., Monday through Friday, periodic noise level increases during the 8-month construction period and would exceed City noise standards. As such, short-term noise impacts would be significant and unavoidable (Final EIR, p. 3.7-13 3.7-14).

Short-term construction-related noise impacts would exceed the acceptable noise threshold for sensitive noise receptors in the City of Arcadia. Noise levels associated with sediment transfer and placement in the SPSs would exceed the standards of the City of Arcadia Noise Element of the General Plan and noise ordinance of the Arcadia Municipal Code (Final EIR, p. 3.7-15). Several mitigation measures, including temporary sound walls are provided in the Final EIR; however, the residences located closest to the project site west of the Middle SPS and south of the Lower SPS would be subject to intermittent construction equipment noise that cannot be mitigated below the level of significance. Therefore, short-term construction-related noise impacts would remain significant and unavoidable during the 8-month construction period.

In addition, short-term sources of project-GHG emissions would be generated by off-road construction equipment and on-road vehicles used for site preparation, grading, and construction of the site facilities. The combustion of gasoline and diesel fuel results in the generation of CO_2, methane, and nitrous oxide.

As such, construction of the proposed project would generate emissions that would exceed existing levels and contribute to global warming impacts. Specifically, the project would generate 1,784 tons of CO_2 emissions. Implementation of mitigation measures AIR-A and AIR-B during construction would reduce the proposed project's contribution of GHG emissions; however, the impacts would remain significant and unavoidable.

8.2 PROJECT BENEFITS

The LACDPW has (i) independently reviewed the information in the Final EIR and the record of proceedings; (ii) made a reasonable and good faith effort to eliminate or substantially lessen the impacts resulting from the Project to the extent feasible by adopting the mitigation measures identified in the EIR; and (iii) balanced the project's benefits against the project's significant unavoidable construction-related noise impacts. It is recommended that the County of Los Angeles Board of Supervisors finds that the project's benefits outweigh the project's temporary significant unavoidable impacts, and chooses to approve the Project, despite its significant and unavoidable effects, because, in its view, those impacts are considered acceptable in light of the project's benefits. It is recommended that the County of Los Angeles Board of Supervisors finds that each of the following benefits is an overriding consideration, independent of the other benefits, which warrants approval of the project notwithstanding the project's significant unavoidable impacts to noise and global climate change. Substantial evidence supports the various benefits. Such evidence can be found in the preceding findings, which are incorporated by reference into this section, the Final EIR, and the documents which make up the Record of Proceedings. Construction of the Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project would provide public benefits described below.

8.2.1 COMPLY WITH SEISMIC REQUIREMENTS

The California Department of Water Resources, Division of Safety of Dams (DSOD), currently restricts long-term water storage in the reservoir behind Santa Anita Dam to ensure the facility's compliance with the agency's seismic stability requirements. The maximum reservoir pool level at Santa Anita Dam was previously held at an elevation of 1,280 feet (El. 1,280 feet). The current restriction limits for the maximum reservoir pool is an elevation of 1,258 feet. A recent seismic analysis of Santa Anita Dam showed the safe long-term maximum reservoir level is at El. 1,230 feet, or 28 feet below the current restricted level. Due to concerns regarding the dam's compliance with DSOD's seismic stability standards, DSOD has mandated a lower long-term maximum reservoir level of El. 1,230 feet, effective May 2009.[1] In May 2009, DSOD will require that the dam's outlet works always be capable of draining the reservoir to this elevation (Final EIR, p. 2-5).

[1] The DSOD Certificate of Approval for Big Santa Anita Dam (signed December 18, 2006) allows water to be temporarily impounded to an elevation of 1,258 feet behind the dam until May 2008. During storm events, a temporary impound elevation of 1,316 feet is allowed. DSOD issued a letter on May 7, 2008 to LACDPW for an extension of the temporary reservoir elevation variance of 1,258 feet behind the dam until May 2009.

The proposed project includes improvements to the Santa Anita Dam, which would involve modifications to the dam's inlet/outlet works, including the construction of a new riser. In order to comply with DSOD's seismic stability standards, the riser modification would be done concurrently with the sediment removal project. The bottom elevation at the entrance to the low-level outlet is 1,179.5 feet. The sediment level in Santa Anita Reservoir is nearing El. 1,212 feet, which is hindering valve operation at the dam and will hinder the facility's ability to comply with DSOD's requirements for drawing down the reservoir to the restricted level after storms and during an emergency. There is no existing riser on this outlet (Final EIR, p. 2-7 and 2-8).

The dam outlet modification component consists of constructing a concrete riser on the lowest outlet gate of the dam to El. 1,230 feet. The existing trash rack in front of this gate would be moved to the outside of the new riser and the existing gate would remain in place. An additional gate would be installed on the outside of the new riser. Additional slide gates may be installed on the new riser and/or the existing risers for Valve Nos. 2, 3, and 4, to allow for operations below the new restricted level of 1,258 feet. Installation of the new riser would allow water above El. 1,230 feet to freely pass through the dam, meeting DSOD's seismic safety requirements. Additionally, the proposed project would remove approximately 300,000 to 500,000 cubic yards of sediment from Santa Anita Reservoir (Final EIR, p. 2-8).

The riser modifications and sediment removal would improve the safety of the dam operations. After the construction of the project, the stresses on the dam below the reservoir level during a seismic event would be reduced below the maximum allowable stress of the concrete. As discussed below, compliance with the DSOD safety requirements would address flooding hazards and other potential damages associated with dam failure

8.2.2 IMPROVE FLOOD PROTECTION

The proposed project would improve flood protection. The County design standard for a facility on a natural watercourse is the Capital Flood event. This is the runoff produced by a 50-year frequency design storm falling on a saturated watershed, while also adding the effects of fires and erosion under certain conditions. For Santa Anita Dam, the Capital Flood flow rate is 9,700 cfs. The current spillways do not have sufficient capacity to pass this flow. During a Capital Flood event, water would overtop the dam and could potentially erode the abutments, possibly compromising the stability of the dam. While the Santa Anita Wash downstream of the Santa Anita Debris Dam could contain the maximum flow rate from the Capital Flood, it is not designed to contain the expected flows should the dam fail (Final EIR, p. 2-6).

The DSOD requires using the Probable Maximum Precipitation (PMP) as the design flow rate for the spillway capacity. The PMP is the greatest amount of precipitation for a given duration that is theoretically possible for a particular area. For Santa Anita Dam, the PMP flow rate is 26,100 cfs. As

with the Capital Flood, the spillways do not have sufficient capacity to pass this flow. During a PMP event, water would overtop the dam and would likely erode the abutments, which could potentially lead to dam failure and the sudden release of the entire reservoir down Santa Anita Wash. The wash and downstream channel are not designed to contain the expected flows from the PMP event or dam failure and would be overtopped (Final EIR, p. 2-6).

If this project is not completed, LACDPW would still be required by the DSOD to maintain the reservoir water level no higher than El. 1,230 feet. At this level, LACDPW would eventually lose the ability to control water releases and maintain the low water level because all outlet valves on the dam would be buried in sediment and would be non-operational. The reservoir would be above the long-term maximum water level for long periods of time and spillway flows would occur more often. Flooding of the areas around the wash and other adjacent low-lying areas would be expected. With a total dam failure in any case, approximately 4,800 acres below the dam would flood with the sudden release of the reservoir water. This flooded area would extend south of the Foothill Freeway, including a large residential area, multiple schools and churches, and recreational facilities. Property damage would be extensive and there is a potential for the loss of life (Final EIR, p. 2-6 – 2-7).

Concurrent with the sediment removal activities, the proposed project would construct a riser on the dam's lowest outlet gate to allow water above El. 1,230 feet to freely pass through the dam, thus ensuring that DSOD's seismic requirements are met and greatly reducing potential flood-related damages in the vicinity of the proposed project compared to existing conditions.

8.3 CONCLUSION

After balancing the specific economic, legal, social, technological, and other benefits of the proposed project, it is recommended that the County of Los Angeles Board of Supervisors determine that the unavoidable adverse environmental impacts identified may be considered "acceptable" due to the specific considerations listed above which outweigh the unavoidable, adverse environmental impacts of the proposed project.

The County of Los Angeles Board of Supervisors has considered information contained in the Final EIR as well as the public testimony and record of proceedings in which the project was considered. Recognizing that significant unavoidable air quality and noise impacts will result from construction of the project, it is recommended that the County of Los Angeles Board of Supervisors adopts the foregoing Statement of Overriding Considerations. Having adopted all feasible mitigation measures and recognized all unavoidable significant impacts, it is recommended that the County of Los Angeles Board of Supervisors hereby finds that each of the separate benefits of the proposed project, as stated herein, is determined to be unto itself an overriding consideration, independent of other benefits, that warrants approval of the project and outweighs and overrides its unavoidable significant effects, and thereby justifies the approval of the Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project.

Based on the foregoing findings and the information contained in the record, it is hereby determined that:

a. All significant effects on the environment due to approval of the project have been eliminated or substantially lessened where feasible;

b. There are no feasible project alternatives which would mitigate or substantially lessen the impacts; and

c. Any remaining significant effects on the environment found to be unavoidable are acceptable due to the factors described in the Statement of Overriding Considerations above.

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CHAPTER 9
FINDINGS ON MITIGATION MONITORING AND REPORTING PROGRAM

Pursuant to Section 15091 (a) (1) of the CEQA Guidelines, implementation of the mitigation measures and project design standards identified in the Final EIR would substantially lessen the significant environmental impacts resulting from the project. These mitigation measures and project design standards have been required in, or incorporated into the project. In accordance with Section 15091 (d), and Section 15097 of the CEQA Guidelines, which require a public agency to adopt a program for reporting or monitoring required changes or conditions of approval to substantially lessen significant environmental effects, the Mitigation Monitoring and Reporting Program provided in this chapter is hereby adopted as the mitigation monitoring and reporting program for this project.

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TABLE 9-1 MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Implementation Phase[1]	Monitoring Phase[1]	Enforcement Agency	Verification of Compliance		
				Initial	Date	Remarks
AIR QUALITY						
AIR-A The construction contractor shall provide a NOx reduction plan, for LACDPW approval, demonstrating that construction equipment shall not exceed the 100 lbs/day NOx threshold for the duration of the project. The plan shall provide a detailed equipment list for the overlap and non-overlap construction periods using the construction equipment emissions from URBEMIS 2007, which will be provided by LACDPW, or an equivalent verifiable source approved by CARB or SCAQMD. Measures to reduce emissions may include the use of oxygenated catalysts or Tier 2 or Tier 3 engines.	Final Plans and Specifications; Pre-construction; Construction	Final Plans and Specifications; Pre-construction; Construction	County of Los Angeles, Department of Public Works			
BIOLOGICAL RESOURCES						
BIO-A Prior to commencement of project construction, a rare plant survey shall be completed within the Santa Anita Reservoir, the Middle SPS and anywhere else project ground-disturbing activities would affect vegetated areas to determine the presence or absence of sensitive plant species with potential to occur within this project site. Surveys within the Middle SPS will focus on Plummer's mariposa lily, slender-horned spineflower, mesa horkelia, and Robinson's pepper-grass where suitable habitat for these species occurs. However, all sensitive plant species that have potential to occur in the project area based on the presence of suitable habitat or the known presence of the species in neighboring areas will be searched for during their blooming periods to confirm presence or absence. In addition, all other biological requirements of the U.S. Forest Service shall be implemented to minimize impacts to federal species. Surveys shall be conducted in accordance with the following CNPS guidelines: • A qualified biologist shall conduct field surveys in a manner that will locate any rare, threatened or endangered species that may be present. The Rare Plant survey shall be conducted using systematic field techniques in all habitats of the site to ensure thorough coverage of potential impact areas. • If a state, U.S. Forest Service, or federally listed plant species is detected (e.g., slender-horned spineflower or San Diego ambrosia), then consultation with USFWS and/or, U.S. Forest Service, and/or CDFG must occur to document the finding and determine appropriate mitigation requirements to ensure that impacts to the listed plant species would be less than significant. • Rare plants listed as CNPS List 1B, protected by the California Endangered Species Act, shall be flagged and avoided. If avoidance is not possible, the project proponents shall notify the CDFG 10 days prior to commencement of project activities to allow for salvage of the plants.	Pre-construction	Pre-Construction	County of Los Angeles, Department of Public Works			
BIO-B Should tree and vegetation removal in the Santa Anita Reservoir or Middle SPS or commencement of other construction activities in the project site occur during the breeding season for migratory non-game native bird species (February 1 - August 31), weekly bird surveys shall be performed to detect any protected native birds in the trees to be removed and other suitable nesting habitat within 300 feet of the construction work area (500 feet for raptors). The surveys shall be conducted 30 days prior to the disturbance of suitable nesting habitat by a qualified biologist with experience in conducting nesting bird surveys. The surveys shall continue on a weekly basis with the last survey being conducted no more than 3 days prior to the initiation of clearance/construction work. If a protected native bird is found, LACDPW shall halt all clearance/construction disturbance activities in suitable nesting habitat or within 300 feet of nesting habitat (within 500 feet for raptor nesting habitat) until August 31 or continue the surveys in order to locate any nests. If an active nest is located during the survey, clearing and construction with 300 feet of the nest (within 500 feet for raptor nests) shall be postponed until the nest is naturally vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest should be established in the field with flagging and stakes or construction fencing. Construction personnel shall be instructed on the sensitivity of the area. The results of this measure shall be recorded to document compliance with applicable State and Federal laws pertaining to the protection of native birds. A pre-construction survey for roosting bats shall be performed by a qualified biologist within 30 days prior to removal of trees or structures on the site. If no active roosts are found, then no further action will be warranted. If either a maternity roost or hibernacula	Pre-construction	Construction	County of Los Angeles, Department of Public Works			

[1] The Implementation and Monitoring phases are broken down into four categories: Final Plans and Specifications, Pre-Construction, Construction, and Operation. "Final Plans and Specifications" indicates that the mitigation measure must be incorporated into the final approved design, plans, and specifications for the project. "Pre-Construction" refers to measures that are required prior to the start of construction. "Construction" refers to all aspects of project construction, including, but not limited to, SPS site preparation, dam outlet modification, dry excavation, sediment conveyance, and sediment placement. "Operations" includes all measures that must be implemented during routine operations of the dam outlet and SPS areas.

	Mitigation Measure	Implementation Phase[1]	Monitoring Phase[1]	Enforcement Agency	Verification of Compliance		
					Initial	Date	Remarks
	(structures used by bats for hibernation) is present, the following measures shall be implemented: • If an active maternity roost is located and the project cannot be redesigned to avoid removal of the occupied tree or structure, demolition shall commence before maternity colonies form (i.e., prior to March 1) or after young are volant (flying) (i.e., after July 31). Disturbance-free buffer zones as determined by a qualified biologist in consultation with CDFG shall be observed during the maternity roost season (March 1 - July 31). • If a non-breeding bat hibernacula is found in a structure or tree scheduled for removal, the individuals shall be safely evicted, under the direction of a qualified biologist (as determined by a Memorandum of Understanding with CDFG), by opening the roosting area to allow airflow through the cavity. Demolition shall then follow at least one night after initial disturbance for airflow. This action shall allow bats to leave during darkness, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight. Structures or trees with roosts that need to be removed will first be disturbed at dusk, just prior to removal that same evening, to allow bats to escape during the darker hours. • If special-status bats are found roosting within trees or structures onsite that require removal, appropriate replacement roosts shall be created at a suitable location onsite or offsite in coordination with a qualified biologist, the CDFG, and the LACDPW.						
BIO-C	In order to reduce impacts to sensitive reptiles potentially occurring in the Santa Anita Reservoir, the Middle SPS, and along the access road adjacent to the debris basin LACDPW shall implement the following measures: • Grading and other habitat disturbing activities shall be limited to the footprint of the SPS areas. • To prevent injury or damage to coast (San Diego) horned lizard, two-striped garter snake, and other reptiles, an animal exclusion fence shall be placed along the boundary of the Middle SPS area and along the portion of the access road adjacent to the debris basin. The fence shall be a minimum of 4 feet in height with ¼ inch mesh hardware cloth attached to wooden posts or studded “T” steel posts. Fence material should also be buried a minimum of 12 inches below the ground surface. • Prior to construction, a qualified biologist shall conduct a pre-construction survey for the coast (San Diego) horned lizard and two-striped garter snake and other reptiles within the exclusion fenced area. If any reptiles are found within the exclusion fenced area, the biologist shall safely relocate these species to a suitable area outside of the fenced area. • Drift nets or other exclusionary fencing shall be placed around excavations to reduce the potential for individuals entering excavated areas. If excavations with the potential for entrapment are to remain open for more than 12 hours they must include some means for small mammals, reptiles, and amphibians to escape. This can be accomplished by placement of a ramp that reasonably allows trapped individuals to crawl or walk out of the excavation. Before an excavation is backfilled, it must be checked to ensure that there are no live individuals inside. Backfilling shall not occur until the excavation is clear of all live individuals. • Personnel involved in project implementation shall receive a briefing from a qualified biologist to identify and describe sensitive resources that may be encountered in the project area. Wildlife of any kind that is encountered during the course of project implementation shall either be moved or provided the opportunity to vacate the site. • Personnel shall be reminded that harassment, handling, or removal of wildlife from the project site shall not be permitted.	Pre-construction	Construction; Operation	County of Los Angeles, Department of Public Works			
BIO-D	LACDPW shall mitigate for impacts to 6.7 acres of coast live oak woodlands through a combination of on-site creation of coast live oak woodland and/or by permanently protecting comparable habitat in the watershed or by establishing a conservation easement at the Big Tujunga Mitigation Bank. The combined total of on site creation and/or permanent protection at the Big Tujunga Mitigation Bank shall be a minimum of 6.7 acres. Oak woodland restoration shall occur within the Lower SPS, which includes approximately 8 acres available for such restoration activities. Establishment of a conservation easement shall permanently protect comparable habitat at the Big Tujunga Mitigation Bank, which includes land purchased by the LACDPW.	Final Plans and Specifications; Construction	Construction; Operation	County of Los Angeles, Department of Public Works			

	Mitigation Measure	Implementation Phase[1]	Monitoring Phase[1]	Enforcement Agency	Verification of Compliance		
					Initial	Date	Remarks
	The final size of a conservation easement and the number of trees planted for mitigation shall be determined through consultation with CDFG. City of Arcadia will be consulted regarding restoration activities on the Lower SPS. Mitigation for impacts to coast live oak individuals shall be negotiated in conjunction with mitigation for impacts to coast live oak woodland. A conceptual restoration plan shall be provided once mitigation ratios are negotiated. The restoration plan shall include detailed methodology for how the site will be prepared, planted, and maintained and quantitative performance criteria such as minimum percent cover by native species, maximum percent cover by non-native species, and minimum species diversity levels. Details of planting for mitigation shall be described in both a conceptual restoration plan and a mitigation and monitoring plan for oak woodland, which shall be submitted and approved by CDFG prior to implementation of the project.						
BIO-E	Mitigation for impacts to 3.8 acres of Riversidean alluvial fan sage scrub and 0.08 acre of disturbed Riversidean alluvial fan sage scrub will be accomplished through a combination of restoration of a suitable area on-site and/or by permanently protecting comparable habitat by establishing a conservation easement at the Big Tujunga Mitigation Bank. The combined total of on site restoration and/or permanent protection at the Big Tujunga Mitigation Bank shall be a minimum of 3.88 acres. The Lower SPS includes approximately 8 acres available for restoration. Mitigation for impacts to Riversidean alluvial fan sage scrub shall be negotiated with CDFG. A conceptual restoration plan shall be provided once mitigation ratios are negotiated. The restoration plan shall include detailed methodology for how the site will be prepared, planted, and maintained and quantitative performance criteria such as minimum percent cover by native species, maximum percent cover by non-native species, and minimum species diversity levels. Details of planting for mitigation shall be described in a mitigation and monitoring plan approved by CDFG. Establishment of a conservation easement shall permanently protect comparable habitat at the Big Tujunga Mitigation Bank, which includes land purchased by the LACDPW.	Pre-construction	Construction; Operation	County of Los Angeles, Department of Public Works			
BIO-F	Clean Water Act Section 404 (b)(1) guidelines shall be followed as a framework for compensatory mitigation. Through 404(b)(1) negotiations with the USACE and negotiations with CDFG under Fish and Game Code Sections 1600-1616, a determination of the functions and values of impacted jurisdictional waters shall result in the coordination of appropriate mitigation measures for sediment removal and the impacted ephemeral wash and riparian habitat in the excavation area of the reservoir and Middle SPS. Compensatory mitigation of permanently protecting a minimum of 0.15 acres of comparable habitat shall occur at the Big Tujunga Mitigation Bank or through restoration and permanent protection on Mountains Recreation Conservation Authority (MRCA) land.	Pre-construction	Construction; Operation	County of Los Angeles, Department of Public Works			
CULTURAL RESOURCES							
CUL-A	If archaeological materials are encountered during ground disturbing activities, work in the vicinity shall be immediately halted. The resource shall be assessed by a qualified archaeologist and the appropriate treatment determined in accordance with state law and standard archaeological practices consistent with those outlined by the California Office of Historic Preservation prior to the resumption of construction.	Construction	Construction	County of Los Angeles, Department of Public Works			
CUL-B	If human remains are encountered on the property during ground disturbing activities, the Los Angeles County Coroner's Office shall be contacted and all activities in the vicinity of the discovery shall cease until appropriate disposition of the remains is determined by the Coroner's Office, who will follow their standard protocols.	Construction	Construction	County of Los Angeles, Department of Public Works			
NOISE							
NOISE-A	At all areas except the reservoir-dam area, construction equipment shall be fitted with noise shielding and muffling devices to reduce noise levels to the maximum extent feasible. Where available, these devices shall be better than manufacturer's standard equipment.	Construction	Construction	County of Los Angeles, Department of Public Works			
NOISE-B	Stationary sources, such as message boards for traffic control, that will be located within 500 feet of residences shall be solar or battery powered, or connected to the local power grid, i.e., not powered by an internal combustion engine.	Construction	Construction	County of Los Angeles, Department of Public Works			

Mitigation Measure	Implementation Phase[1]	Monitoring Phase[1]	Enforcement Agency	Verification of Compliance		
				Initial	Date	Remarks
NOISE-C At the SPS areas, equipment maintenance and staging areas shall be located within the project area.	Construction	Construction	County of Los Angeles, Department of Public Works			
NOISE-D At the Lower SPS, construction of a noise barrier on the west and southwest sides will be feasible. Therefore, at the commencement of sediment placement in the Lower SPS, LACDPW shall construct a barrier that shall be at least one foot higher than the line of sight between the exhaust pipes of the construction equipment and receptors that are located 5 feet above the ground on the residential properties immediately to the west and southwest. The necessary height of the barrier will vary with the elevation of the SPS as it is built up. The barrier may be made of plywood, and if so, the wood should be at least ¾ inch thick to prevent noise transmission through the barrier. Alternatively, the most efficient and economical barrier may be built by depositing the initial sediment along the affected boundaries of the site and building an earth berm as a barrier, always keeping the remainder of the working area behind the earth berm relative to the receptors.	Final Plans and Specifications; Construction	Construction	County of Los Angeles, Department of Public Works			
NOISE-E At the commencement of sediment placement in the Middle SPS, the LACDPW shall construct a barrier that shall be at least one foot higher than the line of sight between the exhaust pipes of the construction equipment and receptors that are located 5 feet above the ground on the residential properties immediately to the west. The necessary height of the barrier will vary with the elevation of the SPS as it is built up. The barrier may be made of plywood, and if so, the wood should be at least ¾ inch thick to prevent noise transmission through the barrier. Alternatively, a barrier may be built by depositing the initial sediment along the western boundary of the site and building an earth berm as a barrier, always keeping the remainder of the working area behind the earth berm relative to the receptors.	Final Plans and Specifications; Construction	Construction	County of Los Angeles, Department of Public Works			
NOISE-F The LACDPW shall establish a noise complaint and response procedure that includes a 24-hour toll free or local telephone number for complaints, and a procedure where a field engineer/construction manager will respond within 48 hours as practicable, investigate the complaints, and take corrective action if necessary. Complaints after normal working hours may be received by voice mail.	Construction	Construction	County of Los Angeles, Department of Public Works			
TRANSPORTATION						
TRANS-A Prior to construction, a parking plan shall be prepared by the contractor for review and approval by LACDPW. The parking plan shall illustrate the parking locations for workers on the project site in areas that are not accessible by the public and clearly indicate that construction worker or equipment parking for non-maintenance and construction activities is prohibited in the Wilderness Park and on public roads. A parking map shall be provided to all construction workers prior to construction activities each year. LACDPW shall monitor parking compliance on a monthly basis throughout the construction period.	Final Plans and Specifications; Construction	Final Plans and Specifications; Construction	County of Los Angeles, Department of Public Works			

CHAPTER 10
FINDINGS ON CHANGES TO THE DRAFT EIR AND RECIRCULATION

10.1 CHANGES TO THE DRAFT EIR

In response to comments from the public and other public agencies, minor modifications have been incorporated into the Draft EIR. All of the changes to the Draft EIR are described in Chapter 6 of the Final EIR.

10.2 FINDINGS REGARDING FINAL EIR

Pursuant to CEQA, on the basis of the review and consideration of the Final EIR, all information added to the Final EIR in response to comments on the Draft EIR merely clarifies, amplifies or makes insignificant modifications to an already adequate EIR pursuant to CEQA Guidelines Section 15088.5(b) and that no significant new information has been received that would require recirculation.

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