

1.0 EXECUTIVE SUMMARY

1.1 *Project Summary*

The Santa Ana Watershed Project Authority (SAWPA) was formed in 1972 to plan and construct the Santa Ana Regional Interceptor (SARI) pipeline network with the goal of protecting and improving ground and surface water quality of the Santa Ana River Watershed. SAWPA is a joint powers agency and consists of five member agencies: Eastern Municipal Water District, Western Municipal Water District, Inland Empire Utilities Agency, Orange County Water District and San Bernardino Valley Municipal Water District. SAWPA owns, operates and maintains 72 miles of the SARI pipeline within Riverside and San Bernardino Counties upstream from the Orange/Riverside County line. The Orange County Sanitation District manages and maintains the remainder of the SARI pipeline within the Lower Santa Ana Watershed inside Orange County. The SARI pipeline conveys primarily highly saline, non-domestic wastewater from industrial dischargers and municipal desalter facilities within Riverside and San Bernardino Counties to the Orange County Sanitation District wastewater treatment facility.

SARI Reach IV-A and Reach IV-B were constructed in the early 1980's and are constructed of unlined, reinforced concrete pipe (RCP). These reaches are two of the older portions of the pipeline and are in need of repair and rehabilitation to prevent potential leaks into the groundwater and surface water within the Prado Dam basin area. As part of an ongoing maintenance program consistent with the Statewide General Waste Discharge Requirements (WDR) as adopted by the State Water Resources Control Board, SAWPA had performed regular inspections on the pipeline. Previous surveys of the interior pipelines have identified evidence of decay and bio-growth which inhibits the flow of water through the pipe. The project proposes to rehabilitate segments of the existing pipeline to extend the service life of the Reach IV-A and Reach IV-B pipelines. An initial feasibility study was prepared by SAWPA to evaluate options to repair/replace and/or relocate portions of this section of the SARI line (completed in June 2008).

1.1.1 Proposed Location

The proposed project is located within the unincorporated area of the County of Riverside, within the Sphere of Influence of the City of Corona, the City of Corona, and within the City of Chino in the County of San Bernardino (refer to Figure 3-1, *Regional Map*). The project is located in the extreme southwest corner of the County of Riverside. A portion of the repair work on Reach IV-A (between manholes IVA-0120 and IVA-0680) is located in San Bernardino County within the City of Chino. The proposed project site is located east of

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State Route (SR) 71 and north of SR 91, north and east of the Prado Dam and west of the Corona Airport, and west of Interstate 15 (refer to Figure 3-2, *Vicinity Map*).

The approximate locations of the project area along the existing Reach IV-A and Reach IV-B pipelines are shown in Figure 3-3, *Pipeline Locations*.

The upper portion of Reach IV-A begins at the junction with Reach IV-D at manhole IVA-0180 and continues north to manhole IVA-0680, a distance of approximately 24,669 linear feet (4.7 miles). This section of pipe is 27 inches in diameter and is located beyond the limits of the Prado Dam wetland area, mostly within city streets and previously disturbed areas.

The lower portion of Reach IV-A begins at Prado Dam at manhole IVA-0010 and extends north to the junction of Reach IV-D at manhole IVA-0180, a distance of approximately 16,814 linear feet (3.2 miles). This section is 42 inches in diameter and is mostly located within the water conservation pool impact area.

The section of Reach IV-B included as part of the project also begins at Prado Dam at manhole IVB-0010 and extends east to manhole IVB-0150, a distance of approximately 16,188 linear feet (3.1 miles). This section of pipe is 36 inches in diameter, and manholes IVB-0010 through IVB-0070 are within the water conservation pool impact area. The water conservation pool is part of the Orange County Water District approved water conservation pool to support an aquifer recharge and groundwater augmentation program; refer to Section 3.1, *Project Background*.

1.1.2 Project Description

The existing SARI line carries primarily saline, non-domestic wastewater from industrial discharge, power plants, and municipal desalter facilities. Domestic wastewater is also received on a temporary basis. In considering the best repair options, the following factors were considered for evaluation by SAWPA staff:

- Environmental Impact
- Operational Conflicts with Prado Dam
- Right-of Way Acquisition
- Construction Risk
- Construction Cost
- Mitigation/Permitting Requirements
- Structural Capacity
- Hydraulics

- Operation and Maintenance Cost

Several options were developed to address repairing the pipeline in-place and relocating portions. These are described below. SAWPA may elect to utilize one or more of the options to repair the pipelines, depending on which option best fits the pipeline alignment and surrounding environment. The impact areas discussed in this document represent maximum potential impact areas. It is the intent of SAWPA to implement a repair project that minimizes impacts to sensitive resources.

1.1.2.1 Repair in Place Options

Repair-in-place options consist of pipeline repair techniques that do not require new or additional trenching to replace existing pipelines. Repair-in-place techniques repair existing pipelines within the same alignment without removing or replacing the existing pipe. The repair-in-place options considered for the proposed Project require excavation of access pits, which can be placed in strategic locations to avoid potential impacts to sensitive habitat. Once the repairs are complete, the pipeline would remain underground and no long term recurring impacts are anticipated. Routine maintenance and inspections would be required approximately once every five years.

Cured-in-Place Pipe (CIPP) Liner of the Existing Pipeline

Under this option, a liner coated with a vinyl ester epoxy resin is inserted into the existing pipeline. The liner tube will be inserted into the pipeline at each manhole and pushed into place using water pressure. Once in place, the water in the tube is heated to activate the resin. This process creates a firm corrosion resistant pipe that closely matches the internal diameter of the existing pipeline. The pipeline's corrosion resistant and structural properties would provide an expected 50-year service life. This process cannot be completed with the existing pipeline in service. A temporary access road for construction vehicles and pipeline supply trucks must be constructed adjacent to the existing pipeline. A by-pass pumping system is required to divert flow around the individual work area. The proposed construction area for the CIPP option is shown in Figures 3-5 through 3-13.

The majority of the pipeline of Upper Reach IV-A is located outside of the sensitive habitats within the dam inundation area. The pipeline is located within existing right-of-way, and in most places within city streets or existing maintenance roads. The existing manholes are not covered with sediments and wetland vegetation and habitat disturbance is not required for access.

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Live Stream Slipline of the Existing Pipeline (Segmental Pipe Liner)

This option proposes to insert a slip line into the pipe without interrupting the service of the existing pipeline or installing any external bypass pumping requirements. At specific intervals along the pipeline, access opening will be cut into the top of the pipe. The new pipe would be inserted into the existing pipeline followed by additional pipe segments. As each new segment is installed, the pipe will be pushed downstream to make room for the next pipe segment. Depending on the existing pipeline's horizontal and vertical alignments, insertion points can be strategically placed up to 2,000 linear feet apart to avoid major stream crossings and any previously identified critical habitat for sensitive species. Each insertion point will require approximately 0.5 acre of disturbance to allow for construction equipment where right-of-way access permits. In the more urban areas along Reach Upper IV-A, the insertion point would be limited to a 15 x 30 foot area with staging areas located offsite where temporary access can be obtained. The new pipe would be structurally designed to withstand anticipated sediment and external water level loading conditions. The pipeline's corrosion resistant and structural properties would provide an expected 50-year service life. The proposed construction area for the live stream slipline option is shown in Figures 3-14 through 3-22.

Non-Live Stream Slipline of the Existing Pipeline (Continuous Pipe Liner)

Similar to the Live Stream Slipline approach, segments of up to 2,000 linear feet of pipeline can be rehabilitated at one time depending on horizontal and vertical alignment. However, with this approach individual segments of the new pipe (High Density Polyethylene [HDPE] pipe) will be fused together ahead of installation to create a "joint-free" pipeline; i.e., a pipeline with longer contiguous segments than the existing reinforced concrete pipe (RCP) or the liners proposed in the other two options above. The pipeline's corrosion resistant and structural properties would provide an expected 50-year service life. This process cannot be completed with the existing pipeline in service. A by-pass pumping system is required to divert flow around the individual work area. A temporary access road for construction vehicles and pipeline supply trucks must be constructed adjacent to the existing pipeline. The construction area for this option is the same as the live-stream slip-lining option and is also represented in Figures 3-14 through 3-22.

1.1.2.2 Relocation Options

Partial Realignment of Reach IV-B Outside the Prado Dam Area

This option involves the partial realignment of a segment of Reach IV-B to an area outside the Prado Dam inundation area; please see Figure 3-4, *Reach IV-B Partial Realignment Option*.

This option would most likely be done in conjunction with one of the other repair and rehabilitation options described above. This option would install a new gravity flow corrosion resistant pipeline between manholes IVB-0030 to IVB-0080 outside of the Prado Dam inundation area. Installation of the new pipeline outside of the inundation area would be accomplished by conventional open trench techniques. The existing pipeline would remain in service during construction of the new pipeline. No by-pass pumping would be required under this option. Right of way acquisition for a new 20-foot wide permanent easement and a 50 to 80-foot wide temporary construction zone would be required. The construction area for the partial realignment option is shown in Figure 3-23, *Partial Realignment Option Field Map IVB*.

1.2 Project Setting

As stated previously, the proposed Project site is located east of SR 71, north of SR 91, and west of Interstate 15. The site is located just north and east of the Prado Dam, immediately southwest of the Corona Airport. The area affected by the proposed improvements is within the SARI pipeline alignment and includes Reaches IV-A and IV-B of the pipeline. Reach IV-A serves the Chino Basin area, and Reach IV-B serves the southwestern portion of the City of Riverside.

Reach IV-A is located just east of the Chino Valley Freeway and north of the Prado Dam. The Reach consists of two segments, the Upper Reach IV-A and the lower Reach IV-A. The upper portion of Reach IV-A begins at the junction with Reach IV-D at manhole IVA-0180 and continues north to manhole IVA-0680, a distance of approximately 24,669 linear feet (4.7 miles). This section of pipe is 27 inches in diameter and is located beyond the limits of the Prado Dam wetland area, mostly within city streets and previously disturbed areas.

The lower portion of Reach IV-A begins at Prado Dam at manhole IVA-0010 and extends north to the junction of Reach IV-D at manhole IVA-0180, a distance of approximately 16,814 linear feet (3.2 miles). This section is 42 inches in diameter and is generally located within the water conservation pool impact area.

Reach IV-B is located upstream of Prado Dam, immediately southeast of the Chino Airport. The section of Reach IV-B included as part of the Project also begins at Prado Dam at manhole IVB-0010 and extends east to manhole IVB-0080, a distance of approximately 16,188 linear feet (3.1 miles). This section of pipe is 36 inches in diameter, is within the water conservation pool impact area, and includes manholes IVB-0010 through IVB-0080. The area is heavily overgrown with wetland vegetation and non-native eucalyptus trees. It is considered a highly sensitive biological habitat and is a documented nesting area for the endangered least Bell's vireo and the southwestern willow flycatcher. The Army Corps of

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Engineers (ACOE) maintains environmental permitting authority for all work proposed within such environmentally sensitive areas. In addition to the ACOE, the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG) have permitting jurisdiction in this area.

A recent project completed by the ACOE raised the height of Prado Dam by 28 feet and proposes to raise the spillway elevation by 20 feet. A new water conservation pool would be created to support an aquifer recharge and groundwater augmentation program, to be implemented by the Orange County Water District. The conservation pool behind the Dam would be set at an elevation of 505 feet above mean sea level (amsl), which would inundate the SARI pipelines near the Dam by approximately 30 feet of water.

The Project area is located upstream of the Prado Dam. This area is seasonally flooded, as the Dam holds back water. There are no other structures within the Dam inundation area other than the SARI pipeline.

Although the proposed Project has a zoning classification of Agriculture (A), the General Plan designation is Open Space. Areas immediately surrounding the Project site consist of open space and general industrial areas.

1.3 Summary of Environmental Impacts

SAWPA has determined that an Environmental Impact Report (EIR) is required pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines. The environmental issue areas identified for study in the EIR are agriculture, air quality, biology, cultural resources, hydrology and water quality, geology and soils, and noise. Table 1-1, *Project-Related Impacts, Mitigation, and Levels of Significance*, provided at the end of this section, presents a summary of the environmental impacts of the proposed project, mitigation measures to reduce potential significant impacts of the proposed project, and the level of significance of each impact after mitigation. Refer to Table 1-1, *Project-Related Impacts, Mitigation, and Levels of Significance*, for a summary of environmental effects of the proposed project found to be significant and the mitigation measures that would reduce or avoid those effects.

1.4 Unavoidable Significant Impacts

CEQA Section 21100(b)(2)(A) and CEQA Guidelines Sections 15126(b) and 15126.2(b) require that an EIR analyze the significant adverse environmental impacts that cannot be avoided if the proposed project is implemented. Significant impacts, which include those impacts that can be mitigated, but not reduced to a level that is less than significant, are discussed in Section 5.0 of the EIR.

In Sections 5.0 and 8.0 of this EIR, issue areas were analyzed to determine whether Project implementation would result in a significant adverse environmental impact. Based on the analyses given in these sections, it was determined that potentially significant and unmitigable impacts relative to biology and air quality would occur with implementation of the proposed Project. Impacts relative to cultural resources, geology, hydrology, and noise can be reduced to a level of less than significant with mitigation; refer to Table 1-1, *Summary of Significant Environmental Impacts and Mitigation*. All other issue areas were determined to have less than significant impacts.

1.5 Summary of Project Alternatives

Two alternatives (in addition to the four different options analyzed with the proposed project) to the proposed project are identified and analyzed in detail in Section 7.0 of this EIR: the No Project/No Action Alternative, and the Lower IV-A Pipeline Outside the 505-Foot Elevation Area Alternative. These alternatives were chosen with a focus on reducing or eliminating significant environmental impacts of the proposed project.

1.5.1 No Project/No Action Alternative

Under the No Project/No Action Alternative no repair or rehabilitation work would be completed on the SARI line upstream of Prado Dam. The project area would remain in its existing condition and no additional clearing for access roads and manhole access would be required.

The No Project/No Action Alternative would reduce or avoid most of the temporary construction impacts associated with the proposed Project; however, over the long term, deterioration of the pipeline would result in increased impacts to the Basin. Past inspections of the pipeline show that the pipeline is decaying. With the addition of approximately 20 feet of increased sediment and 30 feet of water from conservation efforts, delaying repairs to the pipeline could result in future impacts to the Prado Basin. The No Project/No Action Alternative would result in greater impacts on water quality as no repairs to the existing pipeline would be completed. Some portions of the pipeline would remain inaccessible and routine maintenance would be hindered. The existing pipelines may be susceptible to further deterioration as a result of decay, and increased pressure from sediment loading and water weight from the conservation pool. Extending the period of time to replace the existing pipelines would potentially result in untreated industrial brine water entering the groundwater table and potentially the conservation pool. Reach IV-A and Reach IV-B convey approximately 2,700 gallons per minute and 5,100 gallons per minute, respectively. A pipeline failure could result in a substantial release of brine and untreated wastewater into the groundwater table or conservation pool before the pipeline could be shut down.

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Impacts to Air Quality, Biological Resources, Cultural Resources, Geology and Soils, and Noise are greater as compared to the proposed Project. Impacts to air quality and noise would result from the increase in construction vehicles that would be required onsite, potential impacts would be greater to water quality, biological resources, and geology and soils from effects of the contamination of the water conservation pool area.

Impacts associated with this alternative would be greater than those of the proposed Project. The No Project/No Action Alternative fails to meet any of the Project objectives outlined in Section 3.5. The No Project/No Action Alternative does not allow for the repair of the pipeline to prevent leakage of untreated industrial wastewater into the water table, minimize future repair work on the pipeline, and extend the useful life of the pipeline by 50 years. For these reasons, the No Project/No Action Alternative is not selected.

1.5.2 Lower IV-A Pipeline Outside the 505-Foot Elevation Alternative

Under the Lower IV-A Pipeline Alternative, a new pipeline would be constructed to replace the existing pipeline which would be abandoned in place. The new pipeline would replace the existing 42-inch pipeline of Lower Reach IV-A.

Subsequent to the revised operational scheme for Prado Dam, which proposes to maintain a water conversation pool at elevation 505 for much of the year, an alternative to relocate the entire portion of Lower Reach IV-A outside of the 505-foot elevation impact area has been considered. This alternative would involve the construction of new pipeline segments that would connect with the existing SARI pipeline downstream of Prado Dam. The existing pipeline would be abandoned in place.

As shown in Figure 3-5, the lower portion of Reach IV-A, from manhole IVA-0010 to IVA-0070, is placed along the toe of the foothills paralleling SR 71. At manhole IVA-0070, the pipeline alignment and SR 71 begin to diverge and are separated by as much as 0.5 mile at the junction with Reach IV-D. The section between manhole IVA-0070 and Reach IV-D is mostly a wetland area and within the Prado Dam impact area.

From manhole IVA-0010 to IVA-0070, a new pipeline alignment could be developed closer to SR 71. This would move the pipeline up the slope and outside of the 505-pool elevation. Much of this alignment is rugged foothill side slope, which would make conventional open trench construction very challenging. A tunneled alignment would be feasible for either a gravity sewer or a pressurized force main. It is estimated that a gravity sewer would have depths approaching 50 feet. A pressurized force main would be much shallower and dependent on the construction method selected (i.e., open-trench, tunneling or horizontal

directional drilling). Beyond manhole IVA-0070 to IVA-0180 (junction with Reach IV-D), the topography is more mild adjacent to SR 71.

The new pipeline alignment would be located in disturbed areas outside of the Prado Dam impact area to avoid potential impacts to sensitive wetland habitats and sensitive bird and animal species that occupy the wetland areas within the conservation pool.

Constructing a new pipeline would allow the existing pipeline to be used until the new pipeline was completed. This would eliminate the need to construct and maintain any by-pass systems during the construction process. The alignment of the new pipeline could be placed in areas where impacts to sensitive wetland habitats and sensitive wildlife species are known to occur, however; the alignment would be limited where existing right-of-way is provided. The new pipeline could be moved to higher elevations within the Prado Dam area where access to the pipeline and manholes would not be restricted due to conservation pool. Under this alternative potential impacts to biological resources are considered to be greater as compared to the proposed Project. Potential air quality and noise are considered to be greater as compared to the proposed Project. Potential impacts to cultural resources, geology and soils, and hydrology and water quality are considered to be similar when compared to the proposed project.

The Lower Reach IV-A Pipeline Outside the 505-Foot Elevation Alternative is the Environmentally Superior Alternative after the proposed Project. Most of the potential impacts are similar or greater than the proposed Project. The benefit this alternative offers is the potential to identify a new pipeline alignment that avoids a greater amount of sensitive wetland habitats within the conservation pool. This alternative does meet some of the project objectives outlined in Section 3.5. This alternative would improve the condition of the SARI pipeline, extend the useful life of the pipeline segments by 50 years, and minimize the future repair work within the 505-foot elevation conservation pool. This alternative does not meet the project objectives of using repair techniques that are financially feasible to provide an interim solution while a long-term solution is sought. This alternative does not utilize existing infrastructure or advanced technologies to minimize impacts.

Furthermore, SAWPA does not currently own property or have right of way access to areas outside the Prado Dam area. Right-of-way acquisition is not required for the rehabilitation options. Acquiring sufficient right-of-way for new pipeline alignments is anticipated to be a costly and lengthy process which would extend the timeframe in which the pipelines would be repaired. Extending the period of time to replace the existing pipelines would potentially result in increased untreated industrial brine water entering the groundwater table and potentially the conservation pool. For these reasons, the Lower Reach IV-A Pipeline Outside the 505-Foot Elevation Alternative is not selected.

1.6 Areas of Controversy

In compliance with Section 15123 of the CEQA Guidelines, this EIR addresses the areas of environmental controversy that are known to SAWPA or were raised by other agencies and the public during the scoping process. No specific controversy associated with the Project has been identified. The following were identified by SAWPA during the preparation of the Notice of Preparation (NOP). The following summarizes the primary areas of concern raised related to significant environmental effects associated with the alternatives of each project component and identifies where these issues are addressed in this EIR.

- **Biological Resources.** The proposed Project would affect the following threatened or endangered species and their habitats: Santa Ana sucker, least Bell's vireo, and southwestern willow flycatcher. Due to the potential significance of impacts to these species, substantial analysis of these species is presented in this EIR (see Section 5.2) and in the Biological Assessment (see Appendix C-1).
- **Air Quality.** The extent and duration of construction activities required to construct the proposed flood control improvements could result in significant impacts to local and regional air quality. These potential impacts are analyzed in detail in the EIR (see Section 5.1) and a General Conformity analysis has been conducted to compare emissions to federal de minimis thresholds (see Appendix B).
- **Potential for hazardous materials to be encountered during the construction process that may pose a threat to human health or the environment.** These potential impacts were evaluated in detail in the EIR (see Section 8.3) and a database search of state and federal databases that track known hazardous materials sites (see Appendix G).

1.7 Issues to be Resolved by the Decision-Making Body

Issues to be resolved by the decision-making body include rejecting alternatives to the proposed project or approving one of the alternatives to the proposed project; rejecting or approving the proposed project; and approving proposed mitigation measures for the project and other environmental findings.

In addition, the following issues need to be resolved by the decision making body:

The final alignment for the Dike at the Alcoa Aluminum Plant is still the subject of discussion between the ACOE, Orange County Water District, and the City of Corona. Although it is anticipated that the final alignment for the dike will be very similar to the design presented in the ACOE Santa Ana River Mainstem Supplemental Environmental Impact Statement (SEIS)/EIR, a revised alignment could influence the design and

construction of the proposed repairs to the SARI pipeline. SAWPA in conjunction with the ACOE and Orange County Water District will need to evaluate whether the final alignment for the dike is substantially different than the alignment examined in this SEIS/EIR and whether the dike would result in changes in the SARI pipeline.

**TABLE 1-1
PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE**

Impact	Mitigation Measures	Level of Significance After Mitigation
AIR QUALITY		
<p>AQ-1 Short-term construction activities associated with the proposed Project would result in air pollutant emission impacts that exceed the South Coast Air Quality Management District (SCAQMD) emission thresholds.</p>	<p>AQ-1A SAWPA shall implement the following measures, in addition to/or as required by South Coast Air Quality Management District Rules 402 and 403, which require implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site:</p> <ul style="list-style-type: none"> • All active portions of the construction site shall be watered to prevent excessive amounts of dust; • On-site vehicle speed shall be limited to 15 miles per hour; • All on-site roads shall be watered periodically; • All material excavated or graded shall be sufficiently watered to prevent excessive amounts of dust; watering, with complete coverage, shall occur at least twice daily, preferably in the late morning and after work is done for the day; • Visible dust beyond the property line which emanates from the Project shall be prevented to the maximum extent feasible; • All material transported off-site shall be sufficiently watered and securely covered to prevent excessive amounts of dust prior to departing the job site; and, • All delivery truck tires shall be watered down and scraped down prior to departing the job site. 	<p>Significant and Unavoidable Impact</p>

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>AQ-1B All trucks that are to haul excavated or graded material on-site shall comply with State Vehicle Code Section 23114 (Spilling Loads on Highways), with special attention to Sections 23114(b)(F), (e)(4) as amended, regarding the prevention of such material spilling onto public streets and roads. Prior to construction, the contractor shall demonstrate how the Project operations subject to that specification during hauling activities shall comply with the provisions set forth in Sections 23114(b)(F), (e)(4).</p> <p>AQ-1C Construction bid packages include a separate “Diesel Fuel Reduction Plan.” This plan shall identify the actions to be taken to reduce diesel fuel emissions during construction activities (inclusive of grading and excavation activities). Reductions in diesel fuel emissions can be achieved by measures including, but not limited to, the following: a) use of alternative energy sources, such as compressed natural gas or liquefied petroleum gas, in mobile equipment and vehicles; b) use of “retrofit technology,” including diesel particulate traps, on existing diesel engines and vehicles; and c) other appropriate measures. The Diesel Fuel Reduction Plan shall include, at a minimum, the following provisions:</p> <ul style="list-style-type: none"> • All diesel fueled off-road construction equipment shall be California Air Resources Board certified or use post-combustion controls that reduce pollutant emissions to the same level as California Air Resources Board certified equipment. California Air Resources Board certified off-road engines are engines that are three years old or less and comply with lower 	

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>emission standards. Post-combustion controls are devices that are installed downstream of the engine on the tailpipe to treat the exhaust. These devices are now widely used on construction equipment and are capable of removing over 90 percent of the PM₁₀, carbon monoxide, and volatile organic compounds from engine exhaust, depending on the specific device, sulfur content of the fuel, and specific engine. The most common and widely used post-combustion control devices are particulate traps (i.e., soot filters), oxidation catalysts, and combinations thereof.</p> <ul style="list-style-type: none"> • All diesel fueled on-road construction vehicles shall meet the emission standards applicable to the most current year to the greatest extent possible. To achieve this standard, new vehicles shall be used or older vehicles shall use post-combustion controls that reduce pollutant emissions to the greatest extent feasible. • The effectiveness of the latest diesel emission controls is highly dependant on the sulfur content of the fuel. Therefore, diesel fuel used by on-road and off-road construction equipment shall be low sulfur (>15 ppm) or other alternative low-polluting diesel fuel formulation. 	

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
AQ-2 Long-term (operational) air emissions associated with the proposed Project would result in an exceedance of SCAQMD thresholds for emissions. No Significant Impact Identified	No mitigation measures are required.	No Impact
AQ-3 Implementation of the proposed Project would result in the exposure of sensitive receptors to substantial pollutant concentrations. No Significant Impact Identified	No mitigation measures are required.	No Impact
AQ-4 Implementation of the proposed Project would result in the creation of objectionable odors affecting a substantial number of people. No Significant Impact Identified	No mitigation measures are required.	No Impact.
AQ-5 Development associated with the proposed Project would not be consistent with the SCAQMD 2007 Air Quality Management Plan. No Significant Impact Identified	No mitigation measures are required.	No Impact.
AQ-6 Development associated with the proposed Project and related cumulative projects would result in significant short-term air quality impacts.	Refer to Mitigation Measures AQ-1A through AQ-1C.	Significant and Unavoidable Impact

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
AQ-7 Development associated with the proposed Project and related cumulative projects would result in significant long-term air quality impacts due to an exceedance of pollutant thresholds. No Significant Impact Identified	No mitigation measures are required	No Impact.
BIOLOGICAL RESOURCES		
BIO-1 Implementation of the proposed Project would have the potential to result in a significant impact on riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	BIO-1 The SARI line improvements are located within an area that is forecast to experience temporal loss of habitat due to inundation of habitat based on future changes in water management activities to support Prado Basin Water Conservation operations (U.S. Army Corps of Engineers, Los Angeles District Prado Basin Water Conservation Feasibility Study, February 2005). Based on the temporal loss of habitat impacts identified in the referenced study, the participating agencies (Corps of Engineers and Orange County) concluded that compensation for loss of habitat should be provided based on approximately 56% of the affected habitat. As a result, compensation for the temporal loss of habitat has already been provided for most of the same area (the area below 505 feet in elevation) that will be temporally impacted by the proposed Project; however, the nature of this temporal impact is different than that related to water conservation inundation impacts. The inundation impacts are a result of rainfall that do not have a discrete timeframe for occurrence. The proposed Project is a	Less Than Significant Impact.

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>construction project that will remove vegetation and cause habitat loss due to discrete construction activities over a specific period of time.</p> <p>To balance the mitigation and prevent double mitigation for the same habitat by both the proposed project and water conservation project, SAWPA proposes to mitigate the temporal loss of habitat along the pipeline alignment based on the impacts identified in Table 5.2-2. Actual mitigation quantities for sensitive habitats will be determined based on the option chosen to repair the pipeline.</p>	
<p>BIO-2 Implementation of the proposed Project would have the potential to result in a significant impact on habitat identified as suitable habitat for the Santa Ana sucker.</p>	<p>BIO-2A Construction activity between manholes IVA-0000 to IVA-0010 and IVB-0030 and IVB-0080 is not permitted in areas where suitable SASU habitat is present. Stream crossings within the construction area are permitted provided temporary bridges are utilized to ensure construction equipment does not enter the wetted area.</p> <p>BIO-2B Prior to any construction work within the area between manholes IVA-0000 to IVA-0010 and IVB-0030 and IVB-0080, the following conditions must be satisfied:</p> <ul style="list-style-type: none"> • A preconstruction survey by a qualified biologist shall be performed to determine that no SASU are present within the construction area, including staging and work areas. The biologist shall submit a letter report to the ACOE and Wildlife Agencies no less than 30 days prior to the start of construction. The letter shall document the date on which the surveys occurred and the results of the survey. If the preconstruction survey identifies the presence of 	<p>Less Than Significant Impact</p>

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>SASU, construction activity within the wetted area must be rescheduled to a time when no SASU are present.</p> <ul style="list-style-type: none"> • A qualified biological monitor shall be onsite daily when construction activity occurs between manholes IVA-0000 to IVA-0010 and IVB-0030 and IVB-0080. If the presence of SASU or SASU habitat is observed during construction, the biological monitor shall have the authority to halt construction activity until the SASU or SASU habitat is no longer present or it is determined that construction activity will not adversely impact SASU or SASU habitat. • If construction activities between manholes IVA-0000 to IVA-0010 and IVB-0030 and IVB-0080 are determined to be adjacent (within 50 feet) to SASU habitat, a qualified biologist shall survey the habitat area and place a temporary barrier or construction fence along the habitat edge to prevent accidental entry into the habitat. 	
<p>BIO-3 Implementation of the proposed Project would have the potential to result in a significant impact on habitat identified as Critical Habitat for least Bell’s vireo (LBVI).</p>	<p>The SARI line improvements are located within an area that is forecast to experience temporal loss of habitat due to inundation of habitat based on future changes in water management activities to support Prado Basin Water Conservation operations (U.S. Army Corps of Engineers, Los Angeles District Prado Basin Water Conservation Feasibility Study, February 2005). Based on the temporal loss of habitat impacts identified in the referenced study, the participating agencies (Corps of Engineers and Orange County) concluded that compensation for loss of habitat should be</p>	<p>Less Than Significant Impact</p>

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>provided based on approximately 56% of the affected habitat.</p> <p>As a result, compensation for the temporal loss of habitat has already been provided for most of the same area (the area below 505 feet in elevation) that will be temporally impacted by the proposed Project; however, the nature of this temporal impact is different than that related to water conservation inundation impacts. The inundation impacts are a result of rainfall that do not have a discrete timeframe for occurrence. The proposed Project is a construction Project that will remove vegetation and cause habitat loss due to discrete construction activities over a specific period of time.</p> <p>To balance the mitigation and prevent double mitigation for the same habitat by both the proposed project and water conservation project, SAWPA proposes to mitigate the temporal loss of habitat along the pipeline alignment based on the impacts identified in Table 5.2-2 in Section 5.2 of this EIR. Actual mitigation quantities for sensitive habitats will be determined based on the option chosen to repair the pipeline. Jurisdictional Wetland impacts are quantified in Table 5.2-3 and Table 5.2-4 of this EIR.</p> <p>BIO-3 Impacts to least Bell’s vireo critical habitat shall be mitigated for in the following manner:</p> <ul style="list-style-type: none"> • Minimize to the maximum extent feasible, the area of LBVI critical habitat impact. • Permanent project impacts to least Bell’s vireo critical habitat (below 505-foot amsl elevation) shall be mitigated for in the form of habitat enhancement and habitat restoration at a 0.5:1 ratio for through purchase of an equivalent amount of acreage of invasive plant removal (primarily arundo), or acquisition of additional 	

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>comparable habitat acreage within the Prado Basin. in-kind creation. Enhancement and restoration of the affected habitat shall adhere to the Army Corps of Engineering’s Habitat Mitigation and Monitoring Program requirements for impacts to jurisdictional waters. All enhancement and restoration efforts shall restore the affected habitat to its native condition, prior to disturbance resulting from construction of the Project.</p> <ul style="list-style-type: none"> • For the permanent loss of least Bell’s vireo habitat resulting from disturbance (above 505-foot amsl elevation) along the access roads and at other impact areas as the result of construction activities, mitigation credits shall also be purchased from an approved offsite mitigation bank at a 1:1 ratio. • A qualified biologist shall implement a post-construction restoration program for temporary impacts to facilitate restoration of the habitat within the construction area (above and below the 505-foot elevation) to its native condition prior to construction. The program may consist of planting willows and other native shrubs and trees and/or assisting the vegetation adjacent to the construction alignment to re-inhabit the disturbed area as quickly as possible. • A qualified biologist shall implement the habitat restoration during suitable weather conditions within the first year after impacts occur. A 5- 	

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>year monitoring and maintenance plan will be developed as part of the habitat restoration plan to insure that the restoration area is self-sustaining. SAWPA shall successfully restore each acre of riparian vegetation that is temporarily disturbed during construction-related activities and will keep all temporarily disturbed areas free of exotic plants until riparian vegetation is re-established. If the site has not begun to recover within five years (i.e., 50 percent of the disturbed areas not vegetated with young riparian vegetation), then the site will be replanted with cutting from native riparian species.</p>	
<p>BIO-4 Implementation of the proposed Project would have the potential to have a substantial adverse effect, either directly or through habitat modifications, on the Santa Ana sucker, identified as species identified as federally-listed threatened species by the U.S. Fish and Wildlife Service.</p> <p>No Significant Impact Identified.</p>	<p>No mitigation measures are required.</p>	<p>No Impact.</p>
<p>BIO-5 Implementation of the proposed Project would have the potential to have a substantial adverse effect, either directly or through habitat modifications on avian species identified as candidate,</p>	<p>BIO-5A To avoid potential indirect impacts to these species during construction, grading and construction activities would occur outside of the migratory nesting season between April 15 and July 15. Regardless of construction timing, a qualified and authorized biologist shall provide all construction workers with an environmental</p>	<p>Less Than Significant Impact</p>

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
<p>sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.</p>	<p>awareness training class and shall be onsite during all aspects of work within onsite riparian habitat where improvements are proposed.</p> <p>If construction must occur in the nesting season, the site biologist will conduct the appropriate level of survey (as discussed in Mitigation Measure NOI-2), as directed by the Wildlife Agencies, to identify and flag LBVI and SWWF breeding territories. A 300- to 500-foot buffer or “no work zone” will be placed around each territory near the Project footprint. If approved by the Wildlife Agencies, sound barriers may be erected in the work area to allow construction to proceed within a buffer zone.</p> <p>BIO-5B To comply with the Migratory Bird Treaty Act, which prohibits the take of active bird nests, any clearing, brushing, or tree removal will be conducted outside the State-identified bird nesting season of February 15 through September 1. Clearing, brushing, and tree removal during the bird nesting season may occur if it is determined by a qualified biologist that no nesting birds (or birds displaying nesting behavior) are present immediately prior to clearing with written concurrence from the US Fish and Wildlife Service and CDFG that no breeding or nesting avian species are present in the vicinity of the clearing area.</p>	

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
<p>BIO-6 Implementation of the proposed Project would have the potential to have a substantial adverse effect, either directly or through habitat modifications on avian species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.</p>	<p>The mitigation measure to reduce potential impacts to sensitive bird species to less than significant is the same as BIO-5.</p>	<p>Less Than Significant Impact</p>
<p>BIO-7 Implementation of the proposed Project would have the potential to interfere substantially with the movement of 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.</p>	<p>BIO-7 To minimize potential effects of the improvements required with this option, all work would be conducted during daylight hours to reduce potential effects of construction lighting on habitats adjacent to construction areas. All equipment would be equipped with noise-reducing fixtures capable of reducing noise levels to the maximum extent practicable. A biologist would be required to be present onsite during all ground-disturbing activities, and all construction workers would be provided with an environmental awareness class to educate such employees on the potential for disturbance to sensitive habitat or wildlife species. The area of potential disturbance would be clearly identified, and a visual barrier would be installed in appropriate areas to prevent accidental intrusion by construction staff into sensitive or off-limit areas.</p>	<p>Less Than Significant Impact</p>

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
<p>BIO-8 Implementation of the proposed Project would have the potential to substantially conflict with applicable local policies and/or ordinances protecting biological resources, such as tree preservation policies or ordinances.</p> <p>No Significant Impact Identified.</p>	<p>No mitigation measures are required.</p>	<p>No Impact.</p>
<p>BIO-9 Implementation of the proposed Project would have the potential to substantially conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan (HCP).</p>	<p>BIO-9a A Determination of Biological Equivalent or Superior Preservation (DBESP) may be required by the regulatory agencies for the proposed 14.69 acres of impacts to Riparian/Riverine habitat.</p> <p>BIO-9b Focused surveys may be required for narrow endemics or criteria area species during the time of year when they are detectable.</p>	<p>Significant and Unavoidable Impact.</p>
<p>BIO-10 Have a substantial adverse effect on Federally protected wetland as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal environment, etc) through direct removal, filling, hydrological interruption, or other means.</p>	<p>BIO-10 The mitigation measure to reduce potential impacts to jurisdictional wetlands to less than significant is the same as that proposed for BIO-1.</p>	<p>Less Than Significant Impact.</p>

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
BIO-11 The proposed Project, in combination with other cumulative Projects, would have the potential to result in impacts to sensitive wildlife and/or habitat due to required construction activities. No Significant Impact Identified.	No mitigation measures are required.	No Impact.
BIO-12 The proposed Project, in combination with other cumulative Projects, would have the potential to result in impacts to sensitive wildlife and/or habitat due to operational activities. No Significant Impact Identified.	No mitigation measures are required.	Less Than Significant Impact
CULTURAL RESOURCES		
CR-1 Implementation of the proposed Project would not cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5. No Significant Impact Identified.	No mitigation measures are required.	No Impact.

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
<p>CR-2 Implementation of the proposed Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5.</p>	<p>CR-2 Archaeological monitoring of all project-related ground-disturbing activities shall be required as a precaution in case previously undocumented cultural resources are identified. A Native American Monitor will be invited to be present during ground disturbing activities. Monitoring activities may be restricted on federal lands and by federal law. If previously undocumented cultural resources are found within the APE, a qualified professional archaeologist shall assess the nature of the find in order to recommend appropriate mitigation measures, halting construction activity in the vicinity of the find if necessary. Additionally, if project plans change to include areas outside the currently surveyed Area of Potential Effects (APE), the new area will require a cultural resources survey.</p>	<p>Less than Significant</p>
<p>CR-3 Implementation of the proposed Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.</p>	<p>Refer to Mitigation Measure CR-2.</p>	<p>Less than Significant</p>
<p>CR-4 Implementation of the proposed Project would not disturb human remains, including those interred outside of formal cemeteries.</p>	<p>CR-4 If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), who will determine and notify a Most Likely Descendant (MLD). The MLD may</p>	<p>Less than Significant</p>

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
	inspect the site of the discovery with the permission of the land owner, or his/her authorized representative. The MLD shall complete his/her inspection within 48 hours of notification by the NAHC. If human remains are identified on federal lands, the process will follow the procedures outlined in the native American Grave Protection and Repatriation Act (NAGPRA). This process will be administered by the US Army Corps of Engineers. The MLD may recommend scientific removal and analysis of human remains and items associated with Native American burials.	
GEOLOGY, SOILS, AND SEISMICITY		
GSS-1 Project construction could create potential impacts involving erosion, or unstable soil conditions from excavation, grading or fill. No Significant Impact Identified.	No mitigation measures are required.	No Impact.
GSS-2 Implementation of the proposed Project would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving 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	No mitigation measures are required.	No Impact.

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
<p>on other substantial evidence of a known fault. No Significant Impact Identified.</p>		
<p>GSS-3 Project implementation could potentially expose structures and/or people to impacts involving seismic ground shaking. No Significant Impact Identified.</p>	<p>No mitigation measures are required.</p>	<p>No Impact.</p>
<p>GSS-4 Project implementation could potentially expose people and/or structures to impacts involving landslides or mudflows. No Significant Impact Identified.</p>	<p>No mitigation measures are required.</p>	<p>No Impact.</p>
<p>GSS-5 Project implementation could potentially expose people and/or structures to potential impacts associated with expansive soils.</p>	<p>GSS-1 If identified at or near grade of new surface improvements sensitive to the action of expansive soils, treatment of expansive soils, could include the following:</p> <ul style="list-style-type: none"> • removal and replacement with non-expansive soils; • lime treatment; • moisture conditioning; or, • utilization of special foundations. 	<p>Less than Significant Impact.</p>

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
<p>GSS-6 Project implementation could result in exposure to impacts involving seismic ground failure including liquefaction, lateral spreading, and seismically induced settlement.</p> <p>No Significant Impact Identified.</p>	<p>No mitigation measures are required.</p>	<p>No Impact.</p>
<p>HYDROLOGY/WATER QUALITY</p>		
<p>HWQ-1 Implementation of grading, excavation and construction activities associated with the proposed Project would cause an increase in pollutant discharge, resulting in potential impacts to water quality.</p>	<p>Mitigation measures for potential water quality impacts associated with the Project are recommended, with consideration for the guidelines from the State National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity (General Permit). Implementation of the following Best Management Practices (BMPs) would be required as mitigation to minimize Project impacts associated with construction.</p> <p>HWQ-1A If the areas disturbed as the result of the Project are greater than one acre:</p> <ul style="list-style-type: none"> • Applicants shall prepare and submit a Notice of Intent (NOI) to the California State Water Resources Board providing notification and intent to comply with the General Permit. • Applicants shall prepare a Storm Water Pollution Prevention Plan (SWPPP) per requirements of the General Permit. 	<p>Less Than Significant Impact</p>

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
	<ul style="list-style-type: none"> • Dewatering activities may require regional board permit. <p>If the disturbed areas are less than one acre:</p> <ul style="list-style-type: none"> • Applicants shall prepare an erosion control plan. • Dewatering activities may require a permit from the Regional Water Quality Control Board. <p>HWQ-1B Implementation of the following construction BMPs shall be required, consistent with the California Storm Water Best Management Practice Handbook - Construction Activity:</p> <ul style="list-style-type: none"> • NS-2 Dewatering Operations – This operation requires the use of sediment controls to prevent or reduce the discharge of pollutants to storm water from dewatering operations. • NS-3 Paving and Grinding Operations – Prevent or reduce the runoff of pollutants from paving operations by proper storage of materials, protecting storm drain facilities during construction and training employees. • NS-8 Vehicle and Equipment Cleaning – Use offsite facilities, or wash in designated areas to reduce pollutant discharge into the storm drain facilities. • NS-9 Vehicle and Equipment Fueling – Use offsite facilities, or designated areas with enclosing or coverings to reduce pollutant discharge into the storm drain facilities. • NS-10 Vehicle and Equipment Maintenance – Use offsite facilities or designated areas with 	

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>enclosing or coverings to reduce pollutant discharge into the storm drain facilities. In addition run a “dry site” to prevent pollution discharge into storm drains.</p> <ul style="list-style-type: none"> • WM-1 Material Delivery and Storage – Minimize the storage of hazardous materials onsite. If stored onsite keep in designated areas, install secondary containment, conduct regular inspections and train employees. • WM-2 Material Use – Prevent and reduce the discharge of pesticides, herbicides, fertilizers, detergents, plaster, petroleum products and other hazardous materials from entering the storm water. • WM-5 Solid Waste Management - This BMP describes the requirements to properly design and maintain trash storage areas. The primary design feature requires the storage of trash in covered areas. • WM-6 Hazardous Waste Management - This BMP describes the requirements to properly design and maintain waste areas. • WM-8 Concrete Waste Management – Prevent and reduce pollutant discharge to storm water from concrete waste by performing on and offsite washouts in designated areas and training employees and consultants. • WM-9 Sanitary/Septic Water Management – Provide convenient, well-maintained facilities, and arrange regular service and disposal of 	

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>sanitary waste.</p> <ul style="list-style-type: none"> • EC-2 Preservation of Existing Vegetation – Minimize the removal of existing trees and shrubs because they serve as erosion control. • WE-1 Wind Erosion Control - Wind erosion or dust control consists of applying water or other dust palliatives as necessary to prevent or alleviate dust nuisance generated by construction activities. • TR-1 Stabilized Construction Entrance/Exit - A stabilized construction access is defined by a point of entrance/exit to a construction site that is stabilized to reduce the tracking of mud and dirt onto public roads by construction vehicles. • TR-2 Stabilize Construction Roadway – All onsite vehicle transport routes should be stabilized immediately after grading and frequently maintained to prevent erosion and control dust. • SE-8 Sand Bag Barriers – By stacking sand bags on a level contour, creates a barrier to detain sediment-laden water. The barrier would promote sedimentation. • SE-9 Straw Bale Barrier – Place straw bales end to end in a level contour in a shallow trench and stake them in place. The bales would detain runoff and promote sedimentation. 	

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
HWQ-2 Implementation of the Project would have the potential to result in the substantial alternation of the existing drainage of a stream or river, in a manner that would result in substantial erosion on- or offsite. No Significant Impact Identified.	No mitigation measures are required.	No Impact.
HWQ-3 Implementation of the Project would have the potential to result in runoff that would exceed the capacity of existing or planned storm water drainage systems. No Significant Impact Identified.	No mitigation measures are required.	No Impact.
HWQ-4 Implementation of the Project would create an adverse effect on drainage patterns or the rate or amount of runoff. No Significant Impact Identified.	No mitigation measures are required.	No Impact.
HWQ-5 The proposed Project would have the potential to result in increased surface runoff and may result in potential flooding impacts offsite. No Significant Impact Identified.	No mitigation measures are required.	No Impact.

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
HWQ-6 The proposed project, in combination with other cumulative projects, would have the potential to result in increased degradation of surface water quality and flooding impacts in the area. No Significant Impact Identified.	No mitigation measures are required.	No Impact.
HWQ-7 The proposed project, in combination with other cumulative projects, would result in increased degradation of surface water quality and flooding impacts in the area, due to long-term operational activities. No Significant Impact Identified.	No mitigation measures are required.	No Impact.
NOISE		
NOI-1 Grading and construction within the area would result in significant temporary noise impacts to nearby noise sensitive receivers.	NOI-1 Prior to site mobilization, the following shall be demonstrated to the Santa Ana Watershed Project Authority, and noted on construction bid documents: <ul style="list-style-type: none"> • All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices; 	Less Than Significant Impact.

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
	<ul style="list-style-type: none"> • Property owners and occupants located within 300-feet of the Project construction site shall be sent a notice, at least 15 days prior to commencement of construction of each phase, regarding the construction schedule of the proposed Project. A sign, legible at a distance of 50 feet shall also be posted at the Project construction site. All notices shall indicate the dates and duration of construction activities, as well as provide a contact name and a telephone number where residents can inquire about the construction process and register complaints; • A Noise Disturbance Coordinator shall be designated and be responsible for responding to any local complaints about construction noise. When a complaint is received, the Noise Disturbance Coordinator shall immediately determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall implement reasonable measures to resolve the complaint. All notices that are sent to residential units within 300-feet of the construction site and all signs posted at the construction site shall include the contact name and the telephone number for the Disturbance Coordinator; and, • During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers. 	

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>NOI-2 Prior to ground disturbance in riparian areas, pre-construction surveys shall be conducted by a qualified biologist once per week for eight consecutive weeks at the appropriate time of day and shall end no more than three days prior to the onset of construction activities to confirm presence or absence of active nests in the project vicinity (at least 300 feet around the development area). If active nests are encountered, species-specific mitigation measures shall be prepared by a qualified biologist, in coordination with the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG) and other appropriate agencies, and implemented to prevent direct loss or abandonment of the active nest. These measures may include the following, but may also include other adequate measures as directed by a qualified biologist: the complete prohibition of grading or heavy equipment construction activity within the following specified buffer-zones: (1) within at least 500 feet of an active listed species or least Bell’s vireo nest (pursuant to the Federal Endangered Species Act and the California Endangered Species Act); or (2) within 300 feet of other sensitive or protected bird nests (under Migratory Bird Treaty Act [MBTA] or California Fish and Game Code provisions). Further, should the nesting of any active listed species bird, raptor, or migratory bird occur on the project site or within any of the buffer-zones articulated above during grading or construction activities, all construction and grading activities shall be halted pending consultation with a qualified biologist.</p>	

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
NOI-2 Grading and construction associated with the proposed project would result in significant temporary vibration impacts to nearby sensitive receptors. No Significant Impact Identified.	No mitigation measures are required.	Less Than Significant Impact.
NOI-3 Traffic generated by the proposed project would not significantly contribute to existing traffic noise in the area or exceed established standards. No Significant Impact Identified.	No mitigation measures are required.	No Impact.
NOI-4 The proposed project would not result in a significant increase in ambient noise levels. No Significant Impact Identified.	No mitigation measures are required.	No Impact.
NOI-5 Development associated with the proposed project and other related cumulative projects would not result in cumulatively considerable construction noise impacts. No Significant Impact Identified	No mitigation measures are required.	No Impact.

TABLE 1-1, PROJECT-RELATED IMPACTS, MITIGATION, AND LEVELS OF SIGNIFICANCE, CONTINUED

Impact	Mitigation Measures	Level of Significance After Mitigation
NOI-6 Development associated with the proposed project and other related cumulative projects would not result in cumulatively considerable noise impacts. No Significant Impact Identified.	No mitigation measures are required.	No Impact.

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