



**US Army Corps  
of Engineers®**  
Los Angeles District

---

# **Prado Basin Ecosystem Restoration and Water Conservation Study**

## **APPENDIX F**

### **Mitigation Monitoring and Reporting Program**

*This page intentionally left blank.*

**Prado Basin, CA Ecosystem Restoration and Water  
Conservation Integrated Feasibility Study  
Mitigation Monitoring and Reporting Program**

**Prepared By  
United States Army Corps of Engineers  
With Technical Assistance Provided By  
Orange County Water District**

# MITIGATION MONITORING REPORTING PROGRAM

## TABLE OF CONTENTS

<b>1.0 Introduction</b> .....	1
<b>2.0 Purpose</b> .....	1
<b>3.0 Roles and Responsibilities</b> .....	2
<b>4.0 Changes to Mitigation Measures</b> .....	2
<b>5.0 Summary Table</b> .....	3

## LIST OF TABLES

Table 5-1 Mitigation Monitoring and Reporting Program Summary Table .....	4
---	---

## **1.0 Introduction**

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared pursuant to the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. It provides for the monitoring of mitigation measures required of the U.S. Army Corps of Engineers (USACE) and the Orange County Water District (OCWD) in the Prado Basin CA Ecosystem Restoration and Water Conservation Integrated Feasibility Study (proposed project), as set forth in the Environmental Impact Statement/Environmental Impact Report (EIS/EIR).

Section 21081.6 of the California Public Resources Code and Sections 15091(d) and 15097 of the State CEQA Guidelines require public agencies “to adopt a reporting or monitoring program for changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment.” An MMRP is required for the proposed project because the EIR identified potentially significant adverse impacts, and identified best management practices mitigation measures to reduce some of those impacts to a less-than-significant level. All measures are intended to offset, to the degree possible, potential adverse effects under both CEQA and the National Environmental Policy Act (NEPA). Some thresholds for significant air quality impacts are different under the two statutes, but common measures were applied to all air quality impacts since those impacts cannot be mitigated to less than threshold values under either law.

This MMRP will be adopted by the OCWD Board of Directors when it approves the project. It will be kept on file at the OCWD at 18700 Ward Street, Fountain Valley, CA 92708.

## **2.0 Purpose**

This MMRP has been prepared to ensure that all required mitigation measures are implemented and completed according to schedule and maintained in a satisfactory manner throughout implementation of the proposed project. The MMRP may be modified by the USACE or the OCWD in response to changing conditions or circumstances. A summary table (attached) has been prepared to assist the responsible parties in implementing the MMRP. The table identifies individual mitigation measures, and for each measure identifies monitoring/mitigation procedures and timing, responsible agencies, and a record of implementation of the mitigation measures. Impacts for which mitigation measures are proposed are listed under the various resource categories in the EIS/EIR. The order in which mitigation measures are presented (by resource category) follows the sequence established in the EIS/EIR.

### **3.0 Roles and Responsibilities**

Unless otherwise specified herein, the USACE and OCWD are responsible for taking all actions necessary to implement the mitigation measures according to the provided specifications and demonstrating that each action has been successfully completed. The USACE and the OCWD, at their discretion, may delegate implementation responsibility or portions thereof to a licensed contractor.

### **4.0 Changes to Mitigation Measures**

Any substantive change to the MMRP shall be documented in writing. Modifications to the best management practices/mitigation measures may be made by the USACE and the OCWD subject to one of the following findings and documented by evidence included in the record:

1. The measure included in the EIS/EIR and the MMRP is no longer required because the significant environmental impact identified in the EIS/EIR has been found not to exist, or to occur at a level which makes the impact less than significant as a result of changes in the project, changes in conditions of the environment, or other factors.

OR

2. The modified or substitute mitigation measure to be included in the MMRP provides a level of environmental protection equal to or greater than that afforded by the mitigation measure included in the EIS/EIR and the MMRP.

AND

3. The modified or substitute mitigation measures do not have significant adverse effects on the environment in addition to or greater than those which were considered by the USACE or OCWD in its decisions regarding the EIS/EIR and the proposed project.

AND

4. The modified or substitute mitigation measures are feasible, and the USACE or OCWD, through measures included in the MMRP or other established procedures, can assure their implementation.

Findings and related documentation supporting the findings involving modifications to mitigation measures shall be maintained in the project file with the MMRP and shall be made available to the public upon request.

## 5.0 Summary Table

The table that follows should guide the USACE and OCWD in evaluating and documenting implementation of mitigation measures. The columns identified in the table are described below:

**Mitigation Measure or Best Management Practice** – Provides the text of the mitigation measures identified in the EIR.

**Timing/Schedule** – Identifies the time frame or milestone at which the mitigation measure will be implemented.

**Implementation Responsibility** – Identifies the entity responsible for complying with mitigation measure requirements.

**Implementation and Verification** – These fields are to be completed as the MMRP is implemented. The “Status/Verification” column describes the type of action taken to verify implementation, and is to be filled out by USACE or OCWD staff based on the documentation provided by qualified contractors, or through personal verification

Table 5-1 Mitigation Monitoring and Reporting Program Summary Table

Mitigation Measure	Responsible for Implementation	Schedule	Monitoring/Report Responsibility	Status/ Verification
Aesthetics				
<p>A-1: Construction lighting fixtures would be shielded by providing side flap on lights. Onsite construction lighting would be arranged so that direct rays would not shine in or produce glares to nearby residential uses.</p>	USACE	During Night Time Sediment Re-Entrainment	USACE	<p>USACE PM verify compliance during implementation</p> <p>Considered Complete when Sediment Re-Entrainment Activities Completed.</p>
<p>A-2: If the onsite construction lighting creates a lighting or glare problem for residential properties, OCWD would implement corrective measures to resolve the problem. Such corrective measures would include raising height of temporary construction walls or other shielding for lighting, providing additional shielding on the light fixtures, and relocating light fixtures.</p>	USACE	During Night Time Sediment Re-Entrainment	USACE	<p>USACE PM verify Compliance during Implementation</p> <p>Considered Complete when Sediment Re-Entrainment Activities Completed.</p>

Air Quality				
AIR-1: The project applicant will require that all off-road diesel-powered equipment that is greater than 50 horsepower and utilized during implementation of the Proposed Action, Alternative 3 and Alternative 4, will be registered with ARB and labelled detailing that the equipment meets Tier 4 Final emissions standards.	USACE	Throughout Project Construction/ Maintenance Activities	USACE	USACE PM verify compliance  Considered Complete after end of project construction activities.
AIR-2: The project applicant will require that all haul trucks utilized during implementation of the Proposed Action, Alternative 3 and Alternative 4 will be licensed in California and will meet the model year 2010 (Tier 4 Final) or newer emissions standards.	USACE	Throughout Project Construction/ Maintenance Activities	USACE	USACE PM verify compliance d  Considered Complete after end of project construction activities
Biological Resources				
BIO-1: If the Habitat Monitoring Program indicates substantial and prolonged degradation of vegetation between 498 ft. and 505 ft., the degraded habitat would be replaced at a 1:1 ratio on OCWD property (Water Conservation Measure only).	USACE/OCWD	Throughout Project Implementation of Water Conservation Measure	USACE/OCWD	OCWD/USACE Ongoing During Implementation of Water Conservation Measure

<p>BIO-2: All vegetation removing and clearing activities and the operation of heavy construction equipment will be conducted between September 16 and February 28, outside of bird nesting season. Vegetation removal and the operation of heavy equipment may begin in the month of August provided the area is surveyed by a qualified biologist in advance of vegetation removals and the qualified biologist determines that no nesting birds are present within 500 feet of the activities.</p>	<p>USACE</p>	<p>During Vegetation Removal</p>	<p>USACE</p>	<p>USACE PM verify compliance  Considered Complete after end of vegetation removal</p>
<p>BIO-3: To minimize noise impacts the following measures will be implemented.</p> <ul style="list-style-type: none"> <li>• Construction of an earthen berm around the sediment storage site.</li> <li>• During the nesting season portable acoustical panels will be placed along perimeter of the sediment removal channel where the floating dredge and/or heavy equipment is operating to minimize construction noise levels.</li> <li>• If needed during the nesting season portable acoustical panels will be placed along the earthen berm around the perimeter of the sediment storage site and around the sediment re-entrainment work area to reduce construction noise levels.</li> <li>• All construction equipment will be equipped with noise reduction features, such as mufflers and engine shrouds.</li> <li>• Onsite generators and booster pumps will be enclosed entirely.</li> </ul>	<p>USACE</p>	<p>During Implementation of Sediment Management Measure</p>	<p>USACE</p>	<p>USACE PM verify compliance  Considered Complete after end of Sediment Management Measure</p>
<p>BIO- 4: Prior to the start of grading activities at the Sediment Storage Site focused gnatcatcher surveys will</p>	<p>USACE</p>	<p>Prior to Grading Activities at</p>	<p>USACE</p>	<p>USACE PM verify compliance</p>

<p>be conducted beginning to determine the presence of California Gnatcatcher territories.</p> <ul style="list-style-type: none"> <li>• Surveys will include the identification of nearby habitat that gnatcatchers may move to or utilize once construction activities start. The qualified biologist will report on whether this nearby habitat is already occupied by gnatcatchers.</li> <li>• Surveys shall also be conducted three days before the start of grading to determine if individual foraging gnatcatchers are present.</li> <li>• Additional nesting season surveys will be conducted annually through the duration of sediment removal activities.</li> <li>• Results of pre-construction, nesting, and pre-grading surveys will be reported to the Service in a quarterly report.</li> </ul>		Sediment Storage Site		Considered Complete after end of grading activities.
<p>BIO-5: To minimize impacts to wildlife species, a biologist that meets USFWS standard qualifications will conduct a biological resource sweep of the work area prior to any ground disturbing activities, during project operation and during demobilization of construction equipment. The biological resource sweep will include the following activities;</p> <ul style="list-style-type: none"> <li>• Inspect the work area for any wildlife species and prepare a list of species observed and record their activity during construction and operation of the project.</li> <li>• Implement exclusionary or avoidance measures and, or relocate sensitive species if possible, and ensure that the quality of adjacent habitat outside of the construction zone is maintained.</li> <li>• In the event that sensitive (protected) wildlife species are present, determine if the activity would cause adverse impacts. If it is determined that the</li> </ul>	USACE	Throughout Project Construction/ Maintenance Activities	USACE	USACE PM verify compliance  Considered Complete after end of project

<p>activity could have the potential to adversely affect wildlife species in a manner not authorized by Federal or State permits, the activity will cease until the species is no longer in harm's way or is relocated outside of the construction activity impact area.</p>				
<p>BIO-6: During vegetation removal activities, trees that are removed will be inspected to determine if nests are present. If nests are present, the nests would either be relocated and if not feasible to be relocated, a new substitute nest will be created and located outside of the work area.</p>	USACE	During Vegetation Removal Activities	USACE	<p>USACE PM verify compliance</p> <p>Considered Complete after end of vegetation removal activities</p>
<p>BIO-7: Sediment management activities and ecosystem restoration activities conducted within Santa Ana River, Chino Creek and Mill Creek between August 1 and January 15, outside of the spawning season.</p>	USACE	Throughout Project Construction/ Maintenance Activities	USACE	<p>USACE PM verify compliance</p> <p>Considered Complete after end of project.</p>
<p>BIO- 8: During construction and operation of the sediment removal channel a qualified biologist will be present to monitor the activities. A qualified biologist is defined as an individual that holds a current 10(a)(1)(A) recovery permit for the Santa Ana Sucker. This individual or any other project biologist can stop dredging activities at any time if impacts to native aquatic species are observed. If impacts to Santa Ana Sucker occur, the Service will be contacted immediately to determine if additional measures to further minimize project impacts are needed or if re-initiation of consultation is necessary. Suction dredging will not proceed until the Service is contacted and a determination</p>	USACE	During construction and operation of the sediment removal channel	USACE	<p>USACE PM verify compliance</p> <p>Considered Complete after end of construction and operation of the</p>

<p>is made on how to proceed. The qualified biologist will prepare weekly reports describing the sediment removal activities. These reports will,</p> <ul style="list-style-type: none"> <li>• Document any sucker that is observed in the sediment removal channel.</li> <li>• Document behavior of any fish observed in the project area, not only sucker, before and during sediment removal activities.</li> <li>• Record the circumstances and numbers of any fish observed to be wounded or killed during sediment removal activities. Any sucker killed or found dead will be preserved in 95 percent ethanol and submitted to an approved depository.</li> </ul>				<p>sediment removal channel</p>
<p>BIO-9 Floating dredge equipment and heavy construction equipment operating in the wetted channel shall warm up (run idle) for a minimum of 10 minutes before initiating the suction dredge to begin removing sediment from the river. During this time the qualified biologist will record observations of any fish in the work area and when complete, but not less than 10 minutes after initiating startup noise, will signal the dredge operator to initiate suction dredging activities.</p>	<p>USACE</p>	<p>Prior to operation Dredging/Heavy Equipment</p>	<p>USACE</p>	<p>USACE PM verify compliance  Considered Complete after end of Sediment Removal Activities.</p>
<p>BIO-10: Prior to and during operation of floating dredge equipment and heavy construction equipment, a spill prevention and contingency plan will be prepared and implemented. The plan will include measures to prevent or avoid and incidental leak or spill, including identification of materials necessary for containment and clean up.</p>	<p>USACE</p>	<p>Prior to and during operation Dredging/Heavy Equipment</p>	<p>USACE</p>	<p>USACE PM verify compliance  Considered Complete after end of Sediment Removal Activities</p>

BIO-11: Vehicles and other equipment will be fueled, cleaned and maintained in designated areas, located away from the Santa Ana River, Chino Creek and Mill Creek to eliminate risk of pollution from spills and contamination.	USACE	Throughout Project Construction/ Maintenance Activities	USACE	USACE PM verify compliance  Considered Complete after end of project
BIO-12: Construction personnel will utilize designated access roads or previously disturbed areas for vehicle access and staging of construction equipment.	USACE	Throughout Project Construction/ Maintenance Activities	USACE	USACE PM verify compliance  Considered Complete after end of Project
BIO-13: Prior to removal of vegetation access routes in and out of the project area will be flagged.	USACE	Throughout Project Construction/ Maintenance Activities	USACE	USACE PM verify compliance  Considered Complete after end of Project
BIO-14: Unpaved areas will be watered as needed to control dust on a continual basis.	USACE	Throughout Project Construction/ Maintenance Activities	USACE	USACE PM verify compliance  Considered Complete after end of Project
BIO-15: All construction, site disturbance and vegetation removal will be located within the delineated construction boundaries. The storage of equipment and materials,	USACE	Throughout Project Construction/ Maintenance Activities	USACE	USACE PM verify compliance

temporary stockpiling of soil would be located within designated areas outside of habitat areas.		Maintenance Activities		Considered Complete after end of project
BIO-16: Areas to remain undisturbed will be clearly flagged or otherwise delineated prior to construction activities and would be monitored to ensure that all activities do not encroach into the delineated protected areas. Onsite biologist will have the authority to halt the Sediment Management Demonstration Project activities if occurring inside delineated areas.	USACE	Throughout Project Construction/  Maintenance Activities	USACE	USACE PM verify compliance  Considered Complete after end of project
BIO-17: The configuration of the work area of the sediment trap, conveyance channels and the sediment storage site will be designed so when it is not in operation it will allow for wildlife movement.	USACE	During Design of Project	USACE	USACE PM verify compliance  Considered Complete after end of Design Phase
BIO-18: A litter control program will be implemented during construction to eliminate the accumulation of trash. Trash will be removed from trash receptacles at the end of each work day to discourage wildlife movement into work areas.	USACE	Throughout Project Construction/  Maintenance Activities	USACE	USACE PM verify compliance  Considered Complete after end of project
BIO-19: Speed limits of 15 miles per hour or less will be required at all times to avoid potential injury to wildlife in the area.	USACE	Throughout Project Construction/  Maintenance Activities	USACE	USACE PM verify compliance  Considered Complete after end of project

BIO-20: A qualified biologist approved by the USACE will monitor access roads to ensure wildlife is not impacted by construction equipment.	USACE	Throughout Project Construction/ Maintenance Activities	USACE	USACE PM verify compliance  Considered Complete after end of project
BIO-21: Construction lighting at the sediment re-entrainment area will be directed onto the work site to prevent spill-over lighting impacts to wildlife. Construction lighting fixtures will be shielded by providing a side flap on the lights or providing temporary drape/wall so that illumination is confined to the work area.	USACE	During Operation Sediment Storage Site	USACE	USACE PM verify compliance  Considered Complete after end of Sediment Removal Activities
Cultural Resources				
CR-1: In consultation with the SHPO, OCWD, and any affected Indian Tribes, the Corps shall ensure that any areas within the project footprint with the potential to encounter historic properties/historic resources that have either not been surveyed or have not been surveyed in the past ten years, are (re)surveyed by an archaeologist meeting the Secretary of the Interior's Qualification Standards. The Corps shall follow the steps outlined at 36 C.F.R. 800.4 thru 36 C.F.R. 800.6.	USACE	During Earth Disturbing Activities	USACE	USACE PM verify compliance  Considered Complete after end of Earth Disturbing Activities
CR-2: An archaeologist meeting the Secretary of the Interior's Qualification Standards shall monitor all construction activities in areas where there is a potential for buried resources. The monitor shall immediately notify the Corps' on-site construction supervisor of any discovery.	USACE	During Earth Disturbing Activities	USACE	USACE PM verify compliance

<p>The Corps on-site construction supervisor shall temporarily stop construction in the area of the discovery. The discovery area and a surrounding buffer zone shall then be clearly delineated. Ground disturbing activities can resume outside the delineated buffer zone. Should previously unknown historic or archaeological remains be discovered, the Corps would comply with 36 C.F.R. § 800.13 or alternative procedures if agreed to under an executed programmatic agreement or memorandum of agreement.</p>				<p>Considered Complete after end of Earth Disturbing Activities</p>
<p>CR-3: When construction crews are working within 50 meters of an eligible or unevaluated cultural resource, the edge of the site, including a 25-meter site buffer will be fenced off, thus ensuring that no construction equipment inadvertently strays into the culturally sensitive area.</p>	<p>USACE</p>	<p>During Earth Disturbing Activities</p>	<p>USACE</p>	<p>USACE PM verify compliance</p> <p>Considered Complete after end of Earth Disturbing Activities</p>
<p>CR-4: Project-related earth disturbance has the potential to unearth previously undiscovered human remains, resulting in a potentially significant impact. If human remains are encountered during excavation activities, all work shall halt and the County Coroner shall be notified (California Public Resources Code, Section 5097.98). The Coroner would determine whether the remains are of forensic interest. If the Coroner determines that the remains are prehistoric, s/he would contact the Native American Heritage Commission (NAHC). The NAHC shall be responsible for designating the most likely descendant (MLD), who would be responsible for the ultimate disposition of the remains, as required by Section 7050.5 of the California Health and Safety Code. The MLD shall make his/her recommendation within 48 hours of being granted access to the site. The MLD's recommendation shall be followed if feasible, and could include scientific removal and non-destructive analysis of the human remains and any items associated with Native American burials (California Health and Safety</p>	<p>USACE</p>	<p>During Earth Disturbing Activities</p>	<p>USACE</p>	<p>USACE PM verify compliance</p> <p>Considered Complete after end of Earth Disturbing Activities</p>

Code, Section 7050.5). If the landowner rejects the MLD's recommendations, the landowner shall rebury the remains with appropriate dignity on the property in a location that would not be subject to further subsurface disturbance (California Public Resources Code, Section 5097.98).				
Geology/Soils				
GEO-1: Prior to the start of construction the applicant would obtain coverage under the General Construction Permit by the State Water Resources Control Board and in compliance with the permit would file a Notice of Intent with the Regional Water Quality Control Board and prepare and implement appropriate Best Management Practices (BMPs) within a Storm Water Pollution Prevention Plan.	USACE	Prior to the start of Construction	USACE	USACE PM verify compliance  Considered Complete after Notice of Intent Filed with the Regional Water Quality Control Board and preparation of Storm Water Pollution Prevention Plan.
GEO-2: Uncovered stockpiles of sediment material shall be regularly watered until re-entrained or re-graded/hydroseeded to minimize water and wind erosion.	USACE	Throughout Project Construction/  Maintenance  Activities	USACE	USACE PM verify compliance  Considered Complete with After end of project

Hazards				
HAZ-1: During construction and operation of the project all local, state and federal regulations would be complied with regarding to the transportation, handling, and storage of hazardous substances.	USACE	Throughout Project Construction/ Maintenance Activities	USACE	USACE PM verify compliance  Considered Complete after end of project
HAZ-2: At each work area involving the operation of heavy equipment and handling and storage of hazardous substances, a Hazardous Material Spill Prevention Plan would be prepared. The hazardous Material Spill Prevention Plan shall contain contingency plans in the event of an accidental release into the environment.	USACE	Prior to Construction	USACE	USACE PM verify compliance  Considered Complete with preparation of Hazardous Material Spill Prevention Plan
HAZ-3: Prior to the start of construction the applicant would prepare an Emergency Evacuation Plan that contains procedures for the demobilization of construction equipment and evacuation of personnel from the study area in the event of a pending significant storm event or other emergency that jeopardizes the safety of personnel or equipment.	USACE	Prior to Construction	USACE	USACE PM verify compliance  Considered Complete with preparation of Emergency Evacuation Plan

Hydrology/Water Quality				
<p>HWQ-1: The Sediment Management Measure shall implement an ongoing Water Quality Monitoring Program that would monitor for organic chemicals, including pesticides, PCBs, PAHs and hydrocarbons, metals, total dissolved solids, indicator bacteria and dissolved oxygen upstream in the Prado Basin reservoir pool and downstream within waters where sediment re-entrainment would occur. Sediment that is used for re-entrainment would be processed by using a washing and settlement process to remove the fine-grained sediment from the sediment prior to re-entrainment downstream to reduce any nutrient, organic chemicals, and potential bacteria/pathogen constituents. The monitoring program would be implemented before construction, during sediment re-entrainment and after sediment re-entrainment. If significant differences between upstream and downstream samples are observed during sediment re-entrainment activities, the rate of sediment re-entrainment would be adjusted per the adaptive management measures included in the Water Quality Monitoring Program to ensure they are within acceptable thresholds of the Regional Water Quality Control Board Basin Plan.</p>	USACE	During implementation of Sediment Management Measure	USACE	<p>USACE PM verify compliance</p> <p>Considered Complete with After End of Sediment Management Measure</p>
<p>HWQ-2: The Corps and OCWD will implement water quality monitoring as needed to fulfill permit requirements for measure construction and discharge of re-entrained sediment below the dam. In addition, the Corps and OCWD will process sediment for re-entrainment using washing and settlement to remove the fine-grained sediment fraction (less than 0.05 mm particle diameter) from the sediment prior to re-entrainment downstream. The sediment processing will be carried out at the stockpile areas located near the spillway (Areas A and B on the sediment measure map, Figure 5-2). Sediment processing will address potential turbidity associated with the re-entrainment, as sand-size sediment does not contribute to turbidity due to</p>	USACE	During implementation of Sediment Management Measure	USACE	<p>USACE PM verify compliance</p> <p>Considered Complete with After End of Sediment Management</p>

rapid settlement from the water column, along with pollutants that are preferentially adsorbed onto fine-grained sediment. The predominance of sand in the grain-size distribution of Santa Ana River sediments upstream of the dam is illustrated in Figure 5-3, which shows sediment sampling results at upstream locations.				
HWQ-3: A Sediment Movement Monitoring Program would be implemented to determine sediment profile changes in the Prado Basin and along segments of the lower Santa Ana River and upstream of sediment removal channel.	USACE	During implementation of Sediment Management Measure	USACE	USACE PM verify compliance  Considered Complete with After End of Sediment Management
HWQ-4: OCWD would coordinate with the Orange County Flood Control District on the fair share responsibility to remove sediment that builds up near the Santa Ana River outlet reach to the ocean. As part of the coordination, the timing, frequency and resource agency permitting requirements would be determined.	USACE	During implementation of Sediment Management Measure	USACE	USACE PM verify compliance  Considered Complete with After End of Sediment Management
HWQ-5: Potential adverse impacts associated with the contribution to the buildup of sediment near the tidal prism would be reduced.				
HWQ-6: During the construction and operation of the sediment management activities OCWD would track weather forecasts for the study area. In the event a large enough storm is predicted that could jeopardize safety, the sediment management activities would cease and de-				

mobilize and all construction equipment from the work area would be removed.				
Land Use/Planning				
LU-1: To avoid conflicts with existing sewer pipelines along Santa Ana Reach 9, prior to placement of SARM Downstream In-Stream Habitat Features, the Orange County Sanitation District will be coordinated with on the location of existing sewer pipelines and the placement of the proposed In-Stream Habitat Features.	USACE	Prior to Implementation In-Stream Habitat Features Measure	USACE	USACE PM verify compliance  Considered Complete After Coordination Orange County Sanitation District
Noise				
N-1: All booster pumps and generators would be contained in sound attenuation enclosures.	USACE	Throughout Project Construction/ Maintenance Activities	USACE	USACE PM verify compliance  Considered Complete with after end of project
N-2: Construction contractors would be required to use only construction equipment that has noise-reduction features, such as mufflers and engine shrouds.	USACE	Throughout Project Construction/ Maintenance	USACE	USACE PM verify compliance

		Activities		Considered Complete with After End of project
N-3: During sediment re-entrainment activities sound attenuation measures would be provided to minimize noise impacts to meet local night time noise standards.	USACE	During implementation of Sediment Management Measure	USACE	USACE PM verify compliance  Considered Complete with After End of Sediment Management Measure
Traffic/Transportation				
T-1: Construction equipment mobilization, demobilization, truck deliveries and truck hauling activities will occur between 9:00 AM and 3:00 PM.	USACE	Throughout Project Construction/  Maintenance  Activities	USACE	USACE PM verify compliance  Considered Complete After Completion of project
T-2: Wherever possible the project haul route trips will use designated truck routes to and from the freeways which include I-5, I-15, I-405, SR-71, and SR-91.	USACE	Throughout Project Construction/	USACE	USACE PM verify compliance

		Maintenance Activities		Considered Complete After Completion of project
T-3: The project will require the construction workers to park on the predetermined off-street parking area.	USACE	Throughout Project Construction/  Maintenance  Activities	USACE	USACE PM verify compliance  Considered Complete After Completion of project
T-4: The project should work with the City Engineer and Public Works Department Traffic Engineering Division to identify lane closure time limitations on roadways within the Cities of Chino, Corona, Costa Mesa, Fountain Valley, Irvine, Norco, and Yorba Linda. A description of project activities will be given to each jurisdiction that includes;  a. Identified hours of construction and hours for deliveries.  b. Identified haul routes.  c. Identify location of staff parking for the construction period.  d. Identify the location of material storage.	USACE	Throughout Project Construction/  Maintenance  Activities	USACE	USACE PM verify compliance  Considered Complete After Completion of project
T-5: Two months prior to the beginning of construction and periodically throughout the construction duration, if needed, the project should notify Emergency Services within the study area of possible travel lane and the potential for traffic	USACE	Throughout Project Construction/	USACE	USACE PM verify compliance

delays during construction (see listing below).		Maintenance Activities		Considered Complete After Completion of project
T-6: Two months prior to the beginning of construction and periodically throughout the construction duration, the project should notify the City Public Works Department Traffic Engineering Division of construction activities on a regular basis.	USACE	Throughout Project Construction/ Maintenance Activities	USACE	USACE PM verify compliance  Considered Complete After Completion of project
T-7: Two months prior to the beginning of construction and periodically throughout the construction duration, the project will notify the School District of possible travel lane closures and the potential for traffic delays during construction. This is to allow the District to alter bus routing when possible and review the need for crosswalk assistance as necessary during the construction duration.	USACE	Throughout Project Construction/ Maintenance Activities	USACE	USACE PM verify compliance  Considered Complete After Completion of project
T-8: Two months prior to the beginning of construction, the project should notify the community-at-large of the various potential roadway closure(s). The written notification will include the construction schedule, the approximate location and duration of activities within each section of roadway, and a toll-free telephone number for receiving questions or complaints. The notification program shall consist of a local	USACE	Throughout Project Construction/ Maintenance Activities	USACE	USACE PM verify compliance  Considered Complete After

<p>newspaper notice and signage posted prior to the limits of construction. Notification prior to the intersections affected by the construction will also be placed on either side of the intersection at intersection crossings. Placement of the signage will be phased to reflect the current construction activity and precede the construction to allow traffic the opportunity to find alternative routes.</p>				<p>Completion of project</p>
<p>T-9: One month prior to specific roadway lane closure(s), the project will implement a notification program to notify the public of the closure(s). The written notification shall include the construction schedule, the exact location and duration of activities within each street (i.e., which travel lanes and access point/driveways would be blocked on which days and for how long), and a toll-free telephone number for receiving questions or complaints. The notification program will consist of a local newspaper notice, mailed information to residents and businesses in the study area and signage posted at the construction limits. The notification will provide alternate routes around the temporary closure that direct traffic to utilize alternative routes when possible.</p>	<p>USACE</p>	<p>Throughout Project Construction/ Maintenance Activities</p>	<p>USACE</p>	<p>USACE PM verify compliance  Considered Complete After Completion of project</p>
<p>T-10: The primary access entry to the site is proposed to be located on the north side of Pomona-Rincon Road approximately 3,000 feet east of Prado Dam and 2,750 feet north of Railroad Street. The improved access width at this location will be a minimum approximately 33 feet with approximately 35-foot driveway radii adjacent to public road access. The truck turning movements at the proposed site will be reviewed to ensure adequate clearance exists on the proposed access driveway to/from the public roadway, such that truck-trailer combination vehicles can adequately enter and leave the site without any access restrictions.</p>	<p>USACE</p>	<p>During Design</p>	<p>USACE</p>	<p>USACE PM verify compliance  Considered Complete After Approval Final Design Plans</p>

<p>T-11: Fire apparatus accessible roadways will be designed and constructed to maintain and support emergency vehicle loads and dimensions on an all-weather drivable surface. In general, the minimum width and vertical clearance of emergency roadways is 13 feet in width for one-way access and 20 feet in width for two-way access with 13.5 feet vertical clearance. For emergency access cross-section of 36 feet or greater parallel parking is typically allowed on both sides of the street. For emergency access cross-section of less than 36 feet in width consult local fire authority for minimum width and parking restrictions. Fire apparatus accessible maximum cross-sectional slope grade of two percent (2%) or a maximum cross-sectional slope grade change of five percent (5%). Fire apparatus accessible preferred maximum longitudinal slope grade of ten percent (10%) or where grades exceeding 10% are necessary because of topographical conditions, the grade percentage allowable for a maximum approved length should be obtained from the local fire authority.</p>	<p>USACE</p>	<p>During Design</p>	<p>USACE</p>	<p>USACE PM verify compliance</p> <p>Considered Complete After Approval Final Design Plans</p>
--	--------------	----------------------	--------------	--