



# Mitigation Monitoring and Reporting Program

## Taft Avenue Sewer Improvement Project

**State Clearinghouse Number 2023070293**

**Prepared by:**

Orange County Sanitation District  
10844 Ellis Avenue  
Fountain Valley, CA 92708

**With Assistance From:**



**Woodard  
& Curran**

530 Technology Way, Suite 100  
Irvine, CA 92618  
949.420.5306  
November 2023

## **1. MITIGATION MONITORING AND REPORTING PROGRAM**

The California Environmental Quality Act (CEQA) requires that when a lead agency adopts a Mitigated Negative Declaration (MND), it shall prepare a monitoring or reporting program for all required mitigation measures (CEQA Guidelines Section 15097). This Mitigation Monitoring and Reporting Program (MMRP) describes the monitoring and reporting program for mitigation measures adopted by Orange County Sanitation District (OC San) to avoid or substantially reduce impacts related to the Taft Avenue Sewer Improvement Project (proposed project) to less than significant levels and has been prepared in accordance with Public Resources Code Section 21081.6 and State CEQA Guidelines Section 15097. This MMRP will be used by OC San to ensure that the mitigation measures identified in the MND are implemented.

### **1.1 Program Administration**

The MMRP shall be administered by OC San and the project's mitigation measures shall be incorporated into design and construction contracts, as appropriate, to ensure full implementation. The MMRP shall be maintained by the designated OC San Project Manager and be available for inspection upon request at OC San's offices.

### **1.2 Project Description**

The proposed project was included in the Orange County Sanitation District 2020 Program Environmental Impact Report Facilities Master Plan (the PEIR). In that document, the proposed project was referred to as "project 2-49," consistent with the numbering of the sewer collection system improvement projects in the Facilities Master Plan (FMP). The Initial Study and this MMRP incorporate mitigation measures from the PEIR, as appropriate.

The Taft Avenue Sewer Improvement Project involves replacement and relocation of a portion of the Taft Branch regional sewer in the City of Orange. The project includes construction and operation of approximately 11,000 linear feet of vitrified clay sewer pipelines, ranging in size from 8 to 21 inches in diameter, and 39 new maintenance holes. The proposed project would connect to the existing City of Orange sewer at the intersection of Meats Avenue and Santiago Boulevard and to the existing OC San sewer at the intersection of Taft Avenue and Glassell Street. The proposed project would abandon approximately 8,000 feet of existing sewer pipeline and would remove 32 existing maintenance holes.

The proposed project would address anticipated capacity issues during wet-weather events as identified in OC San's 2019 Master Plan Update Report, which showed potential risk of sanitary sewer overflows within the Taft Branch regional sewer system.

The project would be constructed entirely within the City of Orange, in Orange County, California. The project would be constructed within the existing City of Orange right-of-way, along Meats Avenue from west of Santiago Boulevard to Breckenridge Street, south along Sacramento Street, west along Taft Avenue, crossing California Department of Transportation (Caltrans) State Route 55, south along Tustin Street, and west along Taft Avenue to Glassell Street. The project area is fully built out. Surrounding land uses include commercial, residential, industrial, and public facilities.

## 2. MITIGATION MONITORING AND REPORTING REQUIREMENTS

A mitigation monitoring and reporting checklist has been developed for the proposed project and is intended for use by Orange County Sanitation District, as lead agency and designated monitoring entity for the proposed project. The checklist, presented as **Table 1**, summarizes the mitigation requirements and the timing for implementing those mitigation measures. It also identifies responsible parties for ensuring implementation of each mitigation measure. These mitigation measures are presented here using the naming conventions and categories in the MND.

**Table MMRP-1: Mitigation Monitoring and Reporting Checklist**

Mitigation Measure	Impact Statement	Party Responsible for Implementation	Party Responsible for Monitoring and Reporting	Monitoring and Reporting Actions	Implementation Schedule	Verification of Compliance: Completion date and Initials
<b>Aesthetics</b>						
<p><b>Mitigation Measure AES-1: Construction Lighting.</b> Should nighttime construction be required, a construction safety lighting plan shall be submitted to the OC San Director of Engineering for review and approval prior to any nighttime construction activities. The Construction Safety Lighting Plan shall require that all construction-related lighting fixtures (including portable fixtures) shall be oriented downward and away from adjacent sensitive areas (including residential and biologically sensitive areas) and that all lighting shall consist of the minimal wattage necessary to provide safety at the construction site.</p>	<p><b>Impact 3.1d</b> – Potential to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.</p>	<p>OC San, Construction Contractor</p>	<p>OC San construction manager</p>	<ul style="list-style-type: none"> <li>• Confirm mitigation measure is incorporated into construction contractor specifications</li> <li>• If nighttime construction lighting is expected, confirm that Construction Safety Lighting Plan is submitted to OC San Director of Engineering for review and approval prior to construction</li> <li>• Monitor nighttime activities weekly to verify that construction Safety Lighting Plan is implemented</li> <li>• Retain copy of Construction Safety Lighting Plan and construction monitoring records in project file</li> </ul>	<p>Pre-construction, (during preparation of contractor specifications)</p> <p>Pre-construction</p> <p>Construction</p> <p>Construction</p>	
<b>Air Quality</b>						
<p><b>Mitigation Measure AQ-1: Tier 4 Final Engines.</b> Prior to the commencement of construction activities for each project, OC San shall require its construction contractor to demonstrate that all 50-horsepower or greater diesel-powered equipment is powered with California Air Resources Board (CARB)-certified Tier 4 Final engines.</p> <p>An exemption from this requirement may be granted if (1) OC San documents equipment with Tier 4 Final engines are not reasonably available, and (2) the required corresponding reductions in criteria air pollutant emissions can be achieved for the project from other combinations of construction equipment. Before an exemption may be granted, OC San’s construction contractor shall: (1) demonstrate that at least two construction fleet owners/operators in Orange County were contacted and that those owners/operators confirmed Tier 4 Final equipment could not be located within Orange County during the desired construction schedule; and (2) the proposed replacement</p>	<p><b>Impact 3.3b</b> – Potential to result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard.</p> <p><b>Impact 3.3c</b> – Potential to expose sensitive receptors to substantial pollutant concentrations.</p>	<p>OC San, Construction Contractor</p>	<p>OC San construction manager</p>	<ul style="list-style-type: none"> <li>• Confirm mitigation measure is incorporated into construction contractor specifications</li> <li>• Perform site inspections, once at the start of construction and once half-way through construction, to verify contractor compliance</li> <li>• Retain copies of inspection records in the project file</li> </ul>	<p>Pre-construction (during preparation of contractor specifications)</p> <p>Construction</p> <p>Construction</p>	

Mitigation Measure	Impact Statement	Party Responsible for Implementation	Party Responsible for Monitoring and Reporting	Monitoring and Reporting Actions	Implementation Schedule	Verification of Compliance: Completion date and Initials
<p>equipment has been evaluated using California Emissions Estimator Model (CalEEMod) or other industry standard emission estimation method and documentation provided to OC San to confirm that project-generated emissions do not exceed applicable SCAQMD mass daily thresholds, the applicable SCAQMD localized significance thresholds, or the SCAQMD carcinogenic (cancer) risk threshold.</p>						
<b>Biological Resources</b>						
<p><b>BIO 1: Nesting Bird Avoidance.</b> Construction activities for project-level and program-level projects shall avoid the migratory bird nesting season (typically February 1 through August 31), to reduce any potential significant impact to birds that may be nesting within 500 feet of project sites. If construction activities must occur during the migratory bird nesting season, an avian nesting survey of the project site and suitable habitat within 500 feet of the site shall be conducted for protected migratory birds and active nests. The avian nesting survey shall be performed by a qualified biologist meeting the standards in the field within 72 hours prior to the start of construction in accordance with the Migratory Bird Treaty Act (16 USC 703–712) and California Fish and Game Code, Sections 3503, 3503.5, and 3513. If an active bird nest is found, the nest shall be flagged and an appropriate buffer established around the nest, which shall be determined by the biologist based on the species’ sensitivity to disturbance (up to 300 feet for passerines and up to 500 feet for raptors and special-status species). The nest area shall be avoided until the nest is vacated and the juveniles have fledged. No project activities may encroach into the buffer until a qualified biologist has determined that the nestlings have fledged, and the nest is no longer active.</p>	<p><b>Impact 3.4a</b> – Potential to have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.</p>	OC San	OC San construction manager	<ul style="list-style-type: none"> <li>• Confirm that construction contractor specifications include mitigation measure</li> <li>• If construction occurs between February 1 and August 31, retain a qualified biologist for avian nesting survey and confirm avian nesting survey is completed no more than three days prior to the start of clearance/ construction work.</li> <li>• If a nest is identified in the avian nesting survey, verify appropriate avoidance buffer is established and that no project activities encroach into the buffer until biologist determines that nest is no longer active</li> <li>• Retain copies of all surveys and reports in project file</li> </ul>	<p>Pre-construction (during preparation of contractor specifications)</p> <p>Pre-construction</p> <p>Pre-construction and construction</p> <p>Construction</p>	

Mitigation Measure	Impact Statement	Party Responsible for Implementation	Party Responsible for Monitoring and Reporting	Monitoring and Reporting Actions	Implementation Schedule	Verification of Compliance: Completion date and Initials
<p><b>BIO 2: Public and Parkway Trees.</b> If the final project design for project-level and program-level projects determines that public and parkway trees may be impacted during project construction for any project-level and program-level projects that occur within the City of Huntington Beach, the City of Fountain Valley, and any other city with a tree protection ordinance (e.g., City of Orange Municipal Code Chapter 12.28 Street Trees), a permit or permission from the applicable city must be obtained prior to cutting, trimming, pruning, or removing any tree, shrub or plant.</p>	<p><b>Impact 3.4e</b> – Potential to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.</p>	<p>OC San, Construction Contractor</p>	<p>OC San construction manager</p>	<ul style="list-style-type: none"> <li>Confirm that construction contractor specifications include mitigation measure</li> <li>If a Street Tree may be impacted, confirm a Street Tree Removal or Planting Permit is obtained</li> <li>Retain copies of permits in project file</li> </ul>	<p>Pre-construction (during preparation of contractor specifications)</p> <p>Pre-construction</p> <p>Construction</p>	
<b>Cultural Resources</b>						
<p><b>CUL-1: Worker Cultural Resources Sensitivity Training.</b> Prior to start of ground-disturbing activities, the qualified archaeologist meeting the Secretary of the Interior’s Professional Qualifications Standards for archaeology (or an archaeologist working under the direct supervision of the qualified archaeologist) shall be retained by the Orange County Sanitation District (OC San) and shall conduct cultural resources sensitivity training for all construction personnel. Construction personnel shall be informed of the types of archaeological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains, and safety precautions to be taken when working with archaeological monitors. The OC San contractor shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance.</p>	<p><b>Impact 3.5a</b> – Potential to cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.</p> <p><b>Impact 3.5b</b> – Potential to cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5.</p> <p><b>Impact 3.5c</b> – Potential to disturb any human remains, including those interred outside of dedicated cemeteries.</p> <p><b>Impact 3.18a</b> – Potential to cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical</p>	<p>OC San, Construction Contractor</p>	<p>OC San construction manager</p>	<ul style="list-style-type: none"> <li>Confirm that mitigation measure is included in construction contractor specifications</li> <li>Retain a qualified archaeologist and confirm preparation of cultural resources sensitivity training materials</li> <li>Confirm cultural resources sensitivity training for all construction personnel is held</li> <li>Retain documentation demonstrating attendance of construction personnel to cultural resources sensitivity training (e.g., sign-in sheet) in project file</li> </ul>	<p>Pre-construction (during preparation of contractor specifications)</p> <p>Pre-construction</p> <p>Pre-construction</p> <p>Construction</p>	

Mitigation Measure	Impact Statement	Party Responsible for Implementation	Party Responsible for Monitoring and Reporting	Monitoring and Reporting Actions	Implementation Schedule	Verification of Compliance: Completion date and Initials
	Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.					
<p><b>CUL-2: Treatment of Archaeological Materials.</b>            In the event of the unanticipated discovery of archaeological materials during ground-disturbing activities associated with the proposed project, OC San shall immediately cease all work activities in the area (within 100 feet) of the discovery until it can be evaluated by the qualified archaeologist. Construction shall not resume until the qualified archaeologist has conferred with OC San on the significance of the resource. In the event that preservation in place is determined to be infeasible and data recovery through excavation is the only feasible mitigation available, an Archaeological Resources Treatment Plan, in accordance with the Advisory Council on Historic Preservation's 2009 Section 106 Archaeology Guidance, shall be prepared and implemented by the qualified archaeologist in consultation with OC San. The Archaeological Resources Treatment Plan will provide for the adequate recovery of the scientifically consequential information contained in the archaeological resource. OC San shall consult with appropriate Native American representatives in determining treatment for pre-contact or Native American resources. The treatment options after data recovery efforts occur may include returning the resource to the appropriate tribe or donation of the resource to a repository identified by the tribe. If preservation in place is not an option or re-deposition on site is not an option, the resource will be curated at an archaeological curation facility (compliant with standards established in 36 CFR 79, Sections 9, 10, and 11).</p>	<p><b>Impact 3.5a</b> – Potential to cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.</p> <p><b>Impact 3.5b</b> – Potential to cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5.</p> <p><b>Impact 3.5c</b> – Potential to disturb any human remains, including those interred outside of dedicated cemeteries</p> <p><b>Impact 3.18a</b> – Potential to cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural</p>	OC San, Construction Contractor	OC San construction manager	<ul style="list-style-type: none"> <li>• Confirm mitigation measure is included in construction contractor specifications</li> <li>• Confirm work stopped in immediate vicinity if archaeological materials are discovered until artifacts evaluated and authorization to resume construction is given</li> <li>• If data recovery through excavation is required, confirm an Archaeological Resources Treatment Plan is prepared and implemented.</li> <li>• Retain copy of Archaeological Resources Treatment Plan, any correspondence between OC San or the archaeologist and Native American representative(s), and curation or treatment reports in project file</li> </ul>	<p>Pre-construction (during preparation of contractor specifications)</p> <p>Construction</p> <p>Construction</p> <p>Construction</p>	

Mitigation Measure	Impact Statement	Party Responsible for Implementation	Party Responsible for Monitoring and Reporting	Monitoring and Reporting Actions	Implementation Schedule	Verification of Compliance: Completion date and Initials
	<p>value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>					
<b>Geology and Soils</b>						
<p><b>Mitigation Measure GEO-1: Paleontological Resources</b>            Prior to commencement of any construction phase ground-disturbing activity in areas of moderate to high paleontological sensitivity (the Taft Branch Improvement Project is identified as an area of "moderate" paleontological sensitivity, see PEIR Figure 4.6-1), OC San shall retain a qualified paleontologist per the 2010 Society of Vertebrate Paleontology guidelines. The paleontologist shall prepare a paleontological resources impact mitigation program for the project that reduces all impacts to less than significant. The paleontological resources impact mitigation program shall be consistent with the Society of Vertebrate Paleontology guidelines and shall include: requirements for preconstruction meeting attendance and worker environmental awareness training, where monitoring is required within the project area based on construction plans and/or geotechnical reports; procedures for adequate paleontological monitoring and discoveries treatment; and paleontological methods (including sediment sampling for microvertebrate fossils), reporting, and collections management. The qualified paleontologist shall attend the preconstruction meeting, and a paleontological monitor under the direction of</p>	<p><b>Impact 3.7f</b> – Potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.</p>	<p>OC San, Constructor Contractor</p>	<p>OC San construction manager</p>	<ul style="list-style-type: none"> <li>• Confirm that mitigation measure is included in construction contractor specifications</li> <li>• Retain a qualified paleontologist and confirm preparation of a paleontological resources impact mitigation program</li> <li>• Confirm qualified paleontologist attends the preconstruction meeting</li> <li>• Confirm paleontological monitor is on site during initial ground-disturbing activities in areas of previously undisturbed moderate and/or high paleontological resources sensitivity</li> <li>• Confirm work stopped in immediate vicinity if fossil discovered until authorization to</li> </ul>	<p>Pre-construction (during preparation of contractor specifications)</p> <p>Pre-construction</p> <p>Pre-construction</p> <p>Construction</p> <p>Construction</p>	

Mitigation Measure	Impact Statement	Party Responsible for Implementation	Party Responsible for Monitoring and Reporting	Monitoring and Reporting Actions	Implementation Schedule	Verification of Compliance: Completion date and Initials
<p>the qualified paleontologist shall be on site during initial ground-disturbing activities in areas of previously undisturbed moderate and/or high paleontological resources sensitivity. In the event that paleontological resources (e.g., fossils) are unearthed, the paleontological monitor shall temporarily halt and/or divert ground-disturbing activity to allow recovery of paleontological resources. The area of discovery shall be roped off with a 50-foot-radius buffer. Once documentation and collection of the find is completed, the paleontological monitor shall allow ground-disturbing activities to recommence in the area of the find.</p>				<p>resume construction is given</p> <ul style="list-style-type: none"> <li>Confirm fossils, if found, are assessed, salvaged, and curated by qualified experts, as applicable</li> <li>Retain documentation demonstrating attendance of construction personnel at fossil discovery training and paleontological resources impact mitigation program in project file</li> </ul>	<p>Construction</p> <p>Construction</p>	
<b>Hazards and Hazardous Materials</b>						
<p><b>Mitigation Measure HAZ-1: Pre-Demolition Hazardous Material Survey and Abatement</b> A survey will be conducted on collection system projects to identify yellow traffic striping that may contain lead chromate and asphalt that may contain asbestos. Following results of the hazardous materials survey, and incorporating information from current lead and asbestos inventories, demolition or renovation plans and contract specifications, including those for road-disturbing activities, shall incorporate abatement procedures for the removal of materials containing asbestos, lead, and universal waste items, as required by law. All abatement work shall be done in accordance with federal, state, and local regulations, including those of the U.S. Environmental Protection Agency, Occupational Safety and Health Administration, California Occupational Safety and Health Administration, and the South Coast Air Quality Management District.</p>	<p><b>Impact 3.9a</b> – Potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.</p> <p><b>Impact 3.9b</b> – Potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.</p> <p><b>Impact 3.9c</b> – Potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.</p>	OC San, Construction Contractor	OC San construction manager	<ul style="list-style-type: none"> <li>Confirm mitigation measure is included in construction contractor specifications</li> <li>Confirm contractor conducts a hazardous materials survey prior to commencement of construction activities</li> <li>Confirm contractor incorporates abatement procedures into demolition and renovation plans and contract specifications in accordance with federal, state, and local regulations</li> <li>Retain a copy of the hazardous materials survey in the project file</li> </ul>	<p>Pre-construction (during prep of contractor specs)</p> <p>Pre-construction</p> <p>Construction</p> <p>Construction</p>	
<p><b>Mitigation Measure HAZ-2: Hazards Contingency Plan.</b> Prior to commencement of any ground-disturbing activities where it has been determined that hazardous materials are present and will be disturbed (see Mitigation Measure HAZ-1), a Hazards Contingency Plan shall be developed that addresses potential impacts to soil, soil vapor, and groundwater from releases on or near the project sites. The Hazards Contingency Plan shall include training procedures for identification of contamination. The Hazards Contingency Plan shall describe</p>	<p><b>Impact 3.9b</b> – Potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.</p> <p><b>Impact 3.9c</b> – Potential to emit</p>	OC San, Construction Contractor	OC San construction manager	<ul style="list-style-type: none"> <li>Confirm mitigation measure is included in construction contractor specifications</li> <li>Confirm the contractor has prepared and implemented a Hazards Contingency Plan, as needed per the hazardous material survey,</li> </ul>	<p>Pre-construction (during preparation of contractor specifications)</p> <p>Construction</p>	

Mitigation Measure	Impact Statement	Party Responsible for Implementation	Party Responsible for Monitoring and Reporting	Monitoring and Reporting Actions	Implementation Schedule	Verification of Compliance: Completion date and Initials
<p>procedures for assessment, characterization, management, and disposal of hazardous constituents, materials, and wastes, in accordance with all applicable state and local regulations. Contaminated soils and/or groundwater shall be managed and disposed of in accordance with local and state regulations. The Hazards Contingency Plan shall include health and safety measures, which may include but are not limited to periodic work breathing zone monitoring and monitoring for volatile organic compounds using a handheld organic vapor analyzer in the event impacted soils are encountered during excavation activities. As opposed to a single document, all necessary elements of a Hazards Contingency Plan may be developed into contract specifications.</p>	<p>hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.</p> <p><b>Impact 3.9d</b> – Potential to be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.</p>			<p>and it is available on-site.</p> <ul style="list-style-type: none"> <li>Retain a copy of the Hazards Contingency Plan in the project file</li> </ul>	Construction	
<p><b>Mitigation Measure HAZ-3: Monitoring Well Protection.</b> Monitoring wells associated with nearby cleanup sites may be located within the proposed project boundaries. Some of these wells may still be actively monitored as part of required cleanup activities. The agency overseeing the associated cleanup site (Regional Water Quality Control Board, Department of Toxic Substances Control, or Orange County Health Care Agency) will be consulted prior to project activities that could affect the monitoring wells to determine the best plan of action to either decommission and destroy, protect, and/or replace affected monitoring wells.</p>	<p><b>Impact 3.9b</b> – Potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.</p>	OC San, Construction Contractor	OC San construction manager	<ul style="list-style-type: none"> <li>Confirm mitigation measure is included in construction contractor specifications</li> <li>Confirm consultation with the applicable overseeing agency(ies) is held prior to construction for project activities that could affect a monitoring well</li> <li>Retain a copy of consultation note(s) in the project file</li> </ul>	Pre-construction (during prep of contractor specifications) Pre-construction  Construction	
<b>Noise</b>						
<p><b>Mitigation Measure NOI-1: Noise Reduction Measures.</b> For Facilities Master Plan (FMP) projects located within 500 feet of noise-sensitive receivers (residences, hotels and motels, educational institutions, libraries, hospitals, and clinics), the following measures shall be implemented:</p> <p>A. All mobile or fixed noise-producing equipment used on an FMP project that is regulated for noise output by a local, state, or federal agency shall comply with such regulation while in the course of program activity.</p> <p>B. Construction equipment shall be properly outfitted and maintained with manufacturer-recommended noise-reduction devices to minimize construction-generated noise.</p>	<p><b>Impact 3.13a</b> – Potential generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.</p>	OC San, Construction Contractor	OC San construction manager	<ul style="list-style-type: none"> <li>Confirm noise reduction mitigation measures are included in construction contractor specifications</li> <li>Confirm that OC San or its designee coordinates with local jurisdictions and sensitive receptors within 500-feet regarding any potential project-specific noise-related issues prior to the start of construction</li> <li>Conduct weekly monitoring to confirm noise reduction measures are implemented during</li> </ul>	Pre-construction (during preparation of contractor specifications)  Pre-construction  Construction	

Mitigation Measure	Impact Statement	Party Responsible for Implementation	Party Responsible for Monitoring and Reporting	Monitoring and Reporting Actions	Implementation Schedule	Verification of Compliance: Completion date and Initials
<p>C. Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible.</p> <p>D. Stationary noise sources such as generators or pumps shall be located at least 100 feet from noise-sensitive land uses as feasible.</p> <p>E. Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.</p> <p>F. Construction site and haul-road speed limits shall be established and enforced during the construction period.</p> <p>G. As feasible, the hours of construction, including noise-generating activities and all spoils and material transport, shall be restricted to the time periods and days permitted by the local noise or other applicable ordinances. As necessary, the OC San shall coordinate with the applicable local jurisdiction regarding activities that are not consistent with local ordinances to avoid/minimize impacts.</p> <p>H. The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. Additionally, pursuant to Occupational Safety and Health Act Sections 1926.601(b)(4) and 1926.602(a)(9), a device that uses broadband “white noise” instead of a single-tone alarm may be used if it is shown to be effective.</p> <p>I. The Orange County Sanitation District or its designees shall coordinate with local jurisdictions and sensitive receptors regarding the proposed FMP to address any potential project-specific noise-related issues prior to commencement of construction activities.</p> <p>J. Noise-reduction measures such as exhaust mufflers, sound blankets or temporary sound walls shall be used to reduce noise from noise-generating equipment and activities during construction.</p>				<p>construction</p> <ul style="list-style-type: none"> <li>Retain documentation of any communication in project file</li> </ul>	Construction	
<p><b>Mitigation Measure NOI-2: Nighttime Noise Reduction Measures.</b></p> <p>In order to ensure construction noise at nearby residences does not exceed the standards detailed in Section 8.24.050(E) of the City of Orange Municipal Code, prior to the start of nighttime construction for Pipeline Segment 4, 500 feet on Tustin Street, OC San shall ensure the following nighttime noise reduction</p>	<p><b>Impact 3.13a</b> – Potential generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of</p>	OC San, Construction Contractor	OC San construction manager	<ul style="list-style-type: none"> <li>Confirm nighttime noise reduction mitigation measures are included in construction contractor specifications</li> <li>Prior to the start of nighttime construction</li> </ul>	<p>Pre-construction (during preparation of contractor specifications)</p> <p>Pre-construction</p>	

Mitigation Measure	Impact Statement	Party Responsible for Implementation	Party Responsible for Monitoring and Reporting	Monitoring and Reporting Actions	Implementation Schedule	Verification of Compliance: Completion date and Initials
<p>measures are in place:</p> <ul style="list-style-type: none"> <li>The construction contractor shall establish a current nighttime ambient noise level at the nearest residential property, 1612 E Briardale Avenue, or accept on the 24-hour average nighttime ambient noise level measured in the Noise Impact Analysis (Appendix E) of 59.1 dBA Leq.</li> <li>The contractor shall install temporary construction noise barriers. These barriers shall block the line of sight between the equipment and the nearest residential property and shall provide a minimum of 10 dBA of noise attenuation. The construction noise barrier shall be constructed with no gaps or perforations. It shall remain in place until the conclusion of the nighttime construction activities.</li> <li>The project plans and specifications shall include documentation verifying the inclusion of an appropriate noise barrier.</li> <li>The construction contractor shall monitor noise levels during nighttime construction activities, as needed, to ensure they do not exceed ambient noise levels or 70 dBA, whichever is less.</li> </ul>	<p>other agencies.</p>			<ul style="list-style-type: none"> <li>for Pipeline Segment 4, 500 feet on Tustin Street, confirm ambient noise level established and temporary construction noise barriers are installed between construction equipment and noise-sensitive receptor(s)</li> <li>Conduct weekly monitoring of mitigation commitments during construction to ensure noise barrier provides noise attenuation to achieve ambient noise level or 70 dBA</li> <li>Retain documentation of periodic monitoring in project file</li> </ul>	<p>(for Pipeline Segment 4)</p> <p>Construction (for Pipeline Segment 4)</p> <p>Construction</p>	
<p><b>Mitigation Measure NOI-3: Time of Day Restrictions.</b> In order to ensure construction noise at nearby residences does not exceed the City of Orange noise standards as detailed in Section 8.24.050(E) of the City of Orange Municipal Code, if the Staging Area located on the east side of State Route 55 is used as part of the proposed project, all activities within this Staging Area shall be limited to when construction activities are exempt from the City noise standards as detailed in Section 8.24.050(E) of the City of Orange Municipal Code. No time-of-day restrictions are placed on the SCE Staging Area located on the west side of State Route 55.</p>	<p><b>Impact 3.13a</b> – Potential generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.</p>	<p>OC San, Construction Contractor</p>	<p>OC San construction manager</p>	<ul style="list-style-type: none"> <li>Confirm time of day restrictions are included in construction contractor specifications</li> <li>On a weekly basis, confirm activities on vacant parcels used as staging areas are limited to hours when construction activities are exempt from the City noise standards</li> <li>Retain documentation in project file</li> </ul>	<p>Pre-construction (during preparation of contractor specifications)</p> <p>Construction (within staging areas)</p> <p>Construction</p>	
<b>Transportation</b>						
<p><b>Mitigation Measure TRA-1: Coordination with Cities, Caltrans</b> Prior to initiation of construction activities, engineering drawings and specifications and/or contractor shop drawings shall be submitted for review and approval by OC San, to the Public Works Departments of Orange and Village Park, the California Department of Transportation (Caltrans), and Union Pacific</p>	<p><b>Impact 3.9f</b> – Potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.</p> <p><b>Impact 3.17a</b> – Potential to conflict</p>	<p>OC San, Construction Contractor</p>	<p>OC San construction manager</p>	<ul style="list-style-type: none"> <li>Confirm construction contractor specifications include mitigation measure</li> <li>Confirm that engineering drawings and</li> </ul>	<p>Pre-construction (during preparation of contractor specifications)</p> <p>Pre-construction</p>	

Mitigation Measure	Impact Statement	Party Responsible for Implementation	Party Responsible for Monitoring and Reporting	Monitoring and Reporting Actions	Implementation Schedule	Verification of Compliance: Completion date and Initials
<p>Railroad and/or Metrolink (where applicable). The proposed project may impact local transportation facilities due to temporary street and/or lane closures, temporary transit stop relocations, haul truck circulation, and construction staging. These impacts, if any, will be identified in the engineering drawings and specifications and/or contractor shop drawings identified for individual projects. The following steps will be required to mitigate construction traffic impacts identified in the engineering drawings and specifications and/or contractor shop drawings:</p> <p><u>Closures to Transportation Facilities</u></p> <p>A. Traffic control, and associated Traffic Control Plans, for any lane closure, detour, or other disruption to traffic circulation, including bicycle and pedestrian trails. Bicycle and pedestrian trails shall remain open, to the greatest extent possible, during construction or re-routed to ensure continued connectivity.</p> <p>B. Engineering drawings and specifications shall meet the standards established in the current California Manual on Uniform Traffic Control Device.</p> <p>C. Bus stop access impacts shall be coordinated with, and approved by, the Orange County Transportation Authority.</p> <p>D. Consistent with applicable City and/or Caltrans requirements, and at least three (3) business days before any construction activities that would affect travel on nearby roadways, the construction contractor shall notify the affected City Public Works Department and/or Caltrans of construction activities that could impede movement (such as lane closures) along roadways to allow for uninterrupted emergency access. Surrounding property owners shall also be notified of construction activities through the OC San Public Outreach Process.</p> <p><u>Truck Haul Routes and Circulation</u></p> <p>E. As required by the applicable agency, construction vehicle haul routes for the delivery of construction materials (e.g., lumber, tiles, piping, windows) to the site, necessary traffic controls and detours, and a construction phasing plan for the construction activities shall be identified.</p> <p>F. The hours during which transport activities can occur and</p>	<p>with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.</p> <p><b>Impact 3.17c</b> – Potential to substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).</p> <p><b>Impact 3.17d</b> – Potential to result in inadequate emergency access.</p>			<p>specifications and/or contractor shop drawings are approved by the appropriate local, state, and federal agencies</p> <ul style="list-style-type: none"> <li>• Confirm the City Public Works Department and/or Caltrans and surrounding property owners were notified of construction activities through the OC San Public Outreach Process prior to start of construction</li> <li>• Confirm traffic control measures identified in the mitigation measure are implemented during construction</li> <li>• Retain copy of any communication or traffic control documentation in project file</li> </ul>	<p>Pre-construction</p> <p>Construction</p> <p>Construction</p>	

Mitigation Measure	Impact Statement	Party Responsible for Implementation	Party Responsible for Monitoring and Reporting	Monitoring and Reporting Actions	Implementation Schedule	Verification of Compliance: Completion date and Initials
<p>methods to mitigate construction-related impacts to adjacent streets shall be specified. Examples of these methods include: 1) transport of materials and heavy equipment to the site(s) shall be avoided during the AM and PM peak commute hours; 2) haul trucks shall utilize designated truck routes to the extent feasible; 3) advance warning signage and/or detour routes shall be provided along streets where construction activities would occur; and, 4) scheduling of construction activities and workers at each individual site so that less than 110 daily trips would occur.</p> <p>G. The contractor shall be required to keep all haul routes clean and free of debris, including gravel and dirt resulting from its operations. The contractor shall clean adjacent streets, as directed by the OC San, of any material that may have been spilled, tracked, or blown onto adjacent streets and areas.</p> <p>H. As required by the applicable agency, hauling and transport of oversize loads outside of their standard working hours will require approvals.</p> <p>I. Use of local streets shall be prohibited, except what is required to provide direct access to a construction site.</p> <p>J. Haul trucks entering or exiting public streets shall yield to public traffic at all times.</p> <p>K. If hauling operations cause any damage to existing pavement, streets, curbs, and/or gutters along the haul route, the contractor shall be fully responsible for repairs. The repairs shall restore the damaged property to its original condition.</p> <p><u>Construction Staging</u></p> <p>L. Any off-site construction staging or material storage sites shall be identified to the extent feasible.</p> <p>M. All project-related staging of vehicles shall be kept out of the adjacent public roadways and shall occur on site or within other off-street areas.</p>						
<p><b>Tribal Cultural Resources</b></p> <p><b>TCR-1: Worker Environmental Awareness Program (WEAP):</b> Prior to the start of ground-disturbing activities, OC San shall retain an archaeologist (Project Archaeologist) meeting the Secretary of the Interior’s Professional Qualification Standards for archaeology (48 Federal Register 44716) to provide WEAP</p>	<p><b>Impact 3.18a</b> – Potential to cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site,</p>	<p>OC San, Construction Contractor</p>	<p>OC San construction manager</p>	<ul style="list-style-type: none"> <li>Confirm construction contractor specifications include mitigation measure</li> </ul>	<p>Pre-construction (during preparation of contractor specifications)</p>	

Mitigation Measure	Impact Statement	Party Responsible for Implementation	Party Responsible for Monitoring and Reporting	Monitoring and Reporting Actions	Implementation Schedule	Verification of Compliance: Completion date and Initials
<p>training that focuses on the inadvertent discovery of archaeological and tribal cultural resources. The WEAP training shall be provided to all construction personnel prior to the commencement of any ground-disturbing activities and shall include, at minimum, the following topics so construction personnel will understand their responsibilities:</p> <ol style="list-style-type: none"> <li>1. What archaeological and tribal cultural resources are and why they are important</li> <li>2. Review environmental laws that protect archaeological and tribal cultural resources, and the consequences of unauthorized collection of artifacts and other cultural material</li> <li>3. Explain the protocol to be followed if an artifact or tribal/cultural resource feature is discovered during construction as identified in TCR-2; and</li> <li>4. Explain the protocol to be followed if potential human remains or associated grave goods are encountered during construction as identified in TCR-2 and TCR-3.</li> </ol> <p>Upon completion of the WEAP training, construction personnel will sign an acknowledgment that they attended the training, understand the training, and will comply with the protocols presented.</p>	<p>feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>			<ul style="list-style-type: none"> <li>• Retain a qualified archaeologist and confirm preparation of training materials</li> <li>• Confirm Worker Environmental Awareness Program training for all construction personnel is held</li> <li>• Retain documentation demonstrating construction personnel acknowledgement of Worker Environmental Awareness Program training in project file</li> </ul>	<p>Pre-construction</p> <p>Pre-Construction</p> <p>Construction</p>	
<p><b>TCR-2: Develop and Implement a Cultural Resource Management Plan (CRMP).</b>  Prior to the start of ground-disturbing activities, OC San's Project Archaeologist shall develop a CRMP that includes protocols to be implemented for the potential scenarios that may arise with the discovery of unanticipated archaeological resources that may also qualify as tribal cultural resources. The CRMP shall follow the provisions of Section 15064.5(f) of the CEQA Guidelines. The CRMP shall also be consistent with the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 Federal Register 44716-44740), the California Office of Historic Preservation's Archaeological Resource Management Reports: Recommended Contents and Format (1990), Guidelines for Archaeological Research Designs (1991), and Guidelines for the Curation of Archaeological Collections (1993), and the Advisory council on Historic Preservation's Treatment of Archaeological Properties: A</p>	<p><b>Impact 3.18a</b> – Potential to cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or a resource determined</p>	OC San	OC San construction manager	<ul style="list-style-type: none"> <li>• Confirm that construction contractor specifications include mitigation measure</li> <li>• Confirm that Project Archaeologist has developed a Cultural Resource Management Plan</li> <li>• Confirm Cultural Resource Management Plan is implemented, as required by the mitigation measure, including consultation with Tribe(s), in the event of the discovery of unanticipated archaeological resources</li> <li>• Retain copy of Cultural Resource</li> </ul>	<p>Pre-construction (during preparation of contractor specifications)</p> <p>Pre-construction</p> <p>Construction</p> <p>Construction</p>	

Mitigation Measure	Impact Statement	Party Responsible for Implementation	Party Responsible for Monitoring and Reporting	Monitoring and Reporting Actions	Implementation Schedule	Verification of Compliance: Completion date and Initials
<p>Handbook (1980).</p> <p>The CRMP shall meet the performance standards outlined above (and further identified below) to avoid, minimize, or mitigate impacts to unanticipated archaeological resources that may also qualify as tribal cultural resources:</p> <ol style="list-style-type: none"> <li>1. Discovery Response Protocols: The CRMP shall identify a stop work radius in the event of a discovery, define resource protection measures to be followed such as delineation of an Environmentally Sensitive Area (ESA), and define a notification protocol to guide OC San’s consultation with Tribes when resources are discovered.</li> <li>2. Monitoring Protocols: The CRMP shall contain protocols for archaeological and tribal monitoring to be activated if sensitive resource areas are inadvertently discovered such as: Monitors will observe ground-disturbing work, coordinate with the OC San project lead/foreman if a work stoppage is required, and assist in the immediate implementation of the Discovery Response Protocols. The Monitoring Protocols shall include a description of roles and responsibilities and protocols for communication/notification in the event of a discovery.</li> <li>3. Evaluation and Treatment Protocols: The CRMP shall contain procedures for archaeological evaluation of discoveries in accordance with the CRHR criteria (14 CCR 4852[b]) and for treatment of resources found to be significant in the event that avoidance or preservation in place are not possible. The CRMP shall include: <ol style="list-style-type: none"> <li>a. A research design that contains an explicit statement of theoretical and methodological approaches to be followed, pursuant to the Secretary of the Interior’s Standards for Archaeological Documentation (48 Federal Register 44734–44737).</li> <li>b. Specific field and laboratory methodologies appropriate for the environmental and cultural context of the area under study, as well as expected results and reasons for those expectations, pursuant to the Secretary of the Interior’s Standards and Guidelines for Identification and Evaluation (48 FR 44720–44726).</li> <li>c. A treatment plan for recovering and preserving</li> </ol> </li> </ol>	<p>by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>			<p>Management Plan in project file</p>		

Mitigation Measure	Impact Statement	Party Responsible for Implementation	Party Responsible for Monitoring and Reporting	Monitoring and Reporting Actions	Implementation Schedule	Verification of Compliance: Completion date and Initials
<p>scientifically consequential data from intact archaeological deposits identified during the testing and evaluation phase that are determined to be significant according to the criteria set forth in the research design, following the guidelines provided in the Advisory Council on Historic Preservation's Treatment of Archaeological Properties: A Handbook (1980). The treatment plan shall include provisions for determining the disposition or long-term curation of any archaeological materials that may be recovered during construction.</p> <p>4. Discovery Protocols for Human Remains and/or Funerary Objects, Sacred Objects, and Objects of Cultural Patrimony: The CRMP shall identify procedures to be implemented in the event of a discovery of human remains and/or funerary objects, sacred objects, and objects of cultural patrimony, consistent with the requirements of mitigation measure TCR-3, including requirements for Tribal consultation regarding arrangements for reburial in a culturally appropriate location. The CRMP shall also contain procedures for Tribal consultation in case isolated objects of Tribal significance are encountered in disturbed stratigraphic contexts, to ensure appropriate treatment or disposition of the objects.</p>						
<p><b>TCR-3: Discovery of Human Remains.</b> In the event of an unanticipated discovery of human remains, in accordance with California Health and Safety Code Section 7050.5, the County Coroner shall be notified within 24 hours of the discovery. The project lead/foreman shall designate an Environmentally Sensitive Area (ESA) physical demarcation/barrier 100 feet around the resource and no further excavation or disturbance shall occur within the ESA until OC San, informed by the County Coroner of its decision, makes a determination regarding the disposition of the remains. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission (NAHC) in Sacramento within 24 hours. In accordance with Public Resources Code Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant (MLD) from the deceased Native American. The MLD shall complete their inspection within 48 hours of being granted</p>	<p><b>Impact 3.18a</b> – Potential to cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or a resource determined</p>	<p>OC San, Construction Contractor</p>	<p>OC San construction manager</p>	<ul style="list-style-type: none"> <li>• Confirm mitigation measure is included in construction contractor specifications</li> <li>• If human remains are found, coordinate with Orange County Coroner within 24 hours and cease construction within the Environmentally Sensitive Area</li> <li>• If remains are determined to be Native American, verify MLD inspection and consultation, and that proper treatment and reburial has occurred, as applicable</li> <li>• Document and retain records regarding</li> </ul>	<p>Pre-construction (during preparation of contractor specifications)</p> <p>Construction</p> <p>Construction</p> <p>Construction</p>	

Mitigation Measure	Impact Statement	Party Responsible for Implementation	Party Responsible for Monitoring and Reporting	Monitoring and Reporting Actions	Implementation Schedule	Verification of Compliance: Completion date and Initials
<p>access to the site. In consultation with the MLD, OC San will determine the disposition of the human remains. OC San shall notify the project lead/foreman when the ESA may be released again for construction.</p>	<p>by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>			<p>discovery of human remains in project file</p>		