

## **K. MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM**

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### **K.1 INTRODUCTION**

The purpose of the Mitigation, Monitoring, Compliance, and Reporting Program (MMCRP) is to briefly describe the mitigation monitoring process for this Proposed Project and describe the roles and responsibilities of government agencies in implementing and enforcing the adopted mitigation measures. The MMCRP provides the recommended framework for monitoring and reporting on the implementation of mitigation measures as it would be handled by the CEQA Lead Agency: the California Public Utilities Commission (CPUC).

The Public Utilities Code in numerous places confers authority upon the CPUC to regulate the terms of service, as well as safety, practices, and equipment of utilities subject to its jurisdiction. It is the standard practice of the CPUC, pursuant to its statutory responsibility to protect the environment, to require that mitigation measures stipulated as conditions of approval be implemented properly, monitored, and compliance reported. In 1989, this requirement was codified statewide as Section 21081.6 of the Public Resources Code. Section 21081.6 requires a public agency to adopt a MMCRP when it approves a project that is subject to preparation of an EIR and where the EIR for the project identifies significant adverse environmental effects.

The purpose of a MMCRP is to ensure that measures adopted to mitigate or avoid significant impacts are implemented. The CPUC views the MMCRP as a working guide to facilitate not only the implementation of mitigation measures by the project proponent, but also the monitoring, compliance and reporting activities of the CPUC and any monitors it may designate.

The CPUC will address its responsibility under Public Resources Code Section 21081.6 when it takes action in relation to applications made regarding the Proposed Project. If the CPUC approves the application, it will also adopt a MMCRP that includes the mitigation measures ultimately made a condition of approval by the CPUC.

### **K.2 THE MONITORING STRATEGY IN OVERVIEW**

The monitoring strategy involves:

- The clear articulation of a series of measures designed to mitigate the impacts likely to be induced by the Proposed Project
- The appointment, by the CPUC, of designated field monitors to observe that all construction activities are compliant with specified mitigation measures
- The provision to the CPUC of monitoring reports prepared by appointed field monitors
- The provision to the CPUC of copies of all tests, investigations, evaluations, and analyses carried out in accordance with the prescribed mitigation measures
- The provision to the CPUC of copies of all other documentation pertaining to compliance with the mitigation measures as required in this MMCRP.

The Applicant and/or the Applicant's contractors will be required to comply with the MMCRP in all respects. In all instances where non-compliance occurs, the CPUC's designated environmental monitor

shall issue a warning to the construction foreman and the SCWC's project manager. Any decisions to halt work due to non-compliance shall be made by the CPUC. The CPUC's designated environmental monitor shall keep a record of any incidents of non-compliance with mitigation measures. Copies of these documents will be supplied to the SCWC and the CPUC.

If the project is approved, the CPUC will prepare a Mitigation Implementation Plan (MIP) that will serve as a self-contained general reference for the MMCRP adopted by the CPUC for the Bolsa Chica Water Line and Wastewater Project. To accomplish this, the MIP should contain the following elements:

- Introduction: describing the authority and purpose of the MIP
- Monitoring Organization: describing the roles and responsibilities of the key agencies involved in the monitoring effort
- General Monitoring Procedures: describing the general procedures for monitoring the implementation of mitigation measures adopted by the CPUC, including procedures for reporting problems, resolving disputes, and dealing with variances to mitigation requirements
- Project Description: providing a concise description of the project, outlining the physical locations and timetable, including construction spreads
- Agency Jurisdictions: providing a list of agencies with jurisdiction over the project and a description of where their respective jurisdictions exist
- Mitigation Monitoring Procedures: describing in detail the mitigation measures to be implemented for each issue area, along with the party responsible, the schedule, the reporting requirements for carrying out the monitoring activity for each mitigation measure, and effectiveness criteria for evaluating the implementation of the mitigation measure. This section will expand upon the information presented in Section K.3 (following) as needed.

### **K.3 MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROCEDURES**

#### **K.3.1 AIR QUALITY**

**IMPACT:** *NO<sub>x</sub> emissions from construction activities would exceed the SCAQMD emission thresholds, and thus would be considered a short-term impact to local air quality conditions.*

<b>MITIGATION MEASURE A-1:</b> Construction equipment shall be maintained in tune, per manufacturer specifications. The SCWC/contractor shall maintain and, where required, recertify each piece of equipment based on the maintenance schedule.
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**Period of Implementation:** Prior to the commencement of construction.

**Responsibility for Implementation:** SCWC and relevant contractor.

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- Prior to the commencement of construction, copies of certification of all equipment from a third-party mechanic stating that the timing of all internal combustion construction equipment engines have been properly maintained will be provided to the CPUC
- A comprehensive maintenance schedule for all construction activities will be provided to the CPUC
- Copies of all recertifications (following equipment repair and maintenance) will be provided to the CPUC.

**MITIGATION MEASURE A-2:** SCWC/contractor shall use catalytic converters on all gasoline equipment (except for small [2-cylinder] generator engines). If this measure cannot be implemented, emissions from gasoline equipment shall be offset by other means (e.g., Emission Reduction Credits, use of alternative fuel vehicles).

**Period of Implementation:** Prior to the commencement of construction.

**Responsibility for Implementation:** SCWC and relevant contractor

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- Prior to the commencement of construction, certification from a third-party mechanic will be provided to the CPUC stating that a catalytic converter is installed on each applicable vehicle and gasoline-fueled equipment
- Where catalytic converters are not used on gasoline equipment, the CPUC will ensure that emissions are reduced by alternate means (e.g., Emission Reduction Credits, use of alternative fuel vehicles).

**MITIGATION MEASURE A-3:** Retard diesel engine injection timing by two degrees before top center on all construction equipment that was manufactured before 1996, and which does not have an existing IC engine warranty with the manufacturer.

**Period of Implementation:** Prior to the commencement of construction.

**Responsibility for Implementation:** SCWC and relevant contractor

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC/contractor shall provide a certification from a third-party certified mechanic prior to start of construction, stating the timing of all diesel-powered construction equipment engines have been retarded two degrees before top center.

**MITIGATION MEASURE A-4:** Substitute small electric-powered equipment for diesel- and gasoline-powered equipment, where feasible.

**Period of Implementation:** Prior to the commencement of construction.

**Responsibility for Implementation:** SCWC and relevant contractor

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC will submit a list to the CPUC of all gasoline- and diesel-equipment (excluding heavy motorized machinery, such as dozers, excavators, dump trucks) to be used by the SCWC or its contractors for construction
- SCWC will provide an analysis to the CPUC showing: i) available electric equipment, ii) those selected for use in the construction of the current project; and iii) the feasibility of their use in the proposed role.

**MITIGATION MEASURE A-5:** Construction will be ceased during periods of high ambient pollutant concentrations (i.e., Stage 2 smog alerts) near the construction area (SCAQMD, 1993). SCWC/contractor shall call (800) CUT-SMOG for daily ozone forecasts.

**Period of Implementation:** During construction.

**Responsibility for Implementation:** SCWC and relevant contractor

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC/contractor shall document in a written log the ozone forecast on a daily basis
- SCWC/contractor shall report periods in which construction was ceased as a consequence of high ambient pollutant levels
- A CPUC field monitor shall confirm that construction is stopped during Stage 2 smog alerts.

**MITIGATION MEASURE A-6:** Use high-pressure injectors on all diesel engines that were manufactured before 1996, and which do not have existing IC engine warranties with the manufacturer.

**Period of Implementation:** Prior to the commencement of construction.

**Responsibility for Implementation:** SCWC and relevant contractor

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC/contractor will provide the warranty and date of manufacture for all vehicles to be used in construction
- Certification from a third-party mechanic stating that all diesel construction equipment engines are utilizing high-pressure fuel injectors.

**MITIGATION MEASURE A-7:** Schedule all material deliveries to the construction spread outside of peak traffic hours, and minimize other truck trips during peak traffic hours, or as approved by local jurisdictions.

**Period of Implementation:** During Construction.

**Responsibility for Implementation:** SCWC and relevant contractor

**Responsibility for Monitoring:** CPUC and cities along pipeline alignment.

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC/contractor shall provide haul plans to the CPUC prior to construction
- The CPUC will monitor compliance during construction.

**MITIGATION MEASURE A-8:** Use only solar powered traffic signs (no gasoline-powered generators will be used).

**Period of Implementation:** Prior to construction.

**Responsibility for Implementation:** SCWC and relevant contractor

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC/contractor shall provide a list of traffic signs to be used during construction and justification of sign choice to the CPUC prior to construction
- The CPUC will monitor compliance during construction.

**MITIGATION MEASURE A-9:** All vehicles will be prohibited from idling in excess of 10 minutes. Prohibit all vehicles from idling in excess of 10 minutes. SCWC shall ensure that project personnel operating vehicles (including contractors, subcontractors, and service company representatives) sign a statement acknowledging their awareness of idling restrictions. Signs shall be posted in plain view within the construction spread area stating that vehicles shall not idle more than 10 minutes and must be shut off prior to the 10-minute limitation.

**Period of Implementation:** Prior to construction.

**Responsibility for Implementation:** SCWC and relevant contractor

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- CPUC will receive a signed statement from all project personnel operating vehicles acknowledging awareness of idling restrictions

- SCWC/contractor shall forward a list of vehicles to be used during construction to the CPUC. SCWC shall also provide an example of signs to be used to remind personnel of 10-minute idling limitation
- The CPUC will monitor compliance during construction.

### **K.3.2 NOISE**

**IMPACT:** *Noise from construction activities could disturb adjacent land uses.*

**MITIGATION MEASURE N-1:** SCWC will provide all businesses and residents adjacent to the pipeline alignment with seven days advance notice of the commencement of construction in the vicinity. Notification will be provided by mail. The SCWC will also notify other potential uses of the public streets that make up the alignment by posting bulletins in potentially affected neighborhoods and by placing notices in local newspapers. These notices will provide information on the types of potential disruption, such as noise, traffic and access problems and will suggest how these inconveniences can be minimized.

**Period of Implementation:** Prior to construction in any particular area.

**Responsibility for Implementation:** SCWC

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC shall provide the CPUC with the address list and a copy of the notification sent to all adjacent landowners
- SCWC shall provide the CPUC with a copy of the bulletins and newspaper advertisements used.

**MITIGATION MEASURE N-2:** The SCWC will establish a toll-free telephone number for community liaison for dealing with a range of public concerns/complaints, including noise and other construction-related issues. The construction notice issues (see Mitigation Measure N.1) will advertise the community liaison telephone number.

**Period of Implementation:** Prior to construction in any particular area.

**Responsibility for Implementation:** SCWC

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC shall provide the CPUC with the address list and a copy of the notification sent to all adjacent landowners
- SCWC shall provide the CPUC with a copy of the bulletins and newspaper advertisements used

- SCWC shall provide the CPUC evidence of the establishment of a toll-free telephone number and shall be provided a monthly report on all public concerns/complaints expressed through the community liaison telephone number.

**MITIGATION MEASURE N-3:** SCWC or its contractor shall maintain proper mufflers on all internal combustion and vehicles engines used in construction to reduce noise to the maximum feasible extent.

**Period of Implementation:** During to construction (but prior to construction in any particular area).

**Responsibility for Implementation:** SCWC and relevant contractor

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC or its contractors shall maintain written certification of muffler condition and make it available on request to the CPUC-approved monitor
- The CPUC will monitor compliance during construction.

### K.3.3 TRAFFIC AND CIRCULATION

**IMPACT:** *Temporary reduction in service levels on local streets and intersections during construction.*

**MITIGATION MEASURE T-1:** The construction contractor shall prepare traffic control/management plans for construction of the pipeline within each of the affected jurisdictions. These traffic control plans shall be reviewed and approved by the affected public agency prior to the commencement of work. The traffic control/management plan shall specify the times during which construction activities will occur and particular times when travel lanes cannot be blocked (e.g., peak traffic periods as directed by the affected City Engineer or Public Works Director). The plans shall provide details regarding the placement of traffic control and warning devices and detours, and indicate whether the trench must be covered and/or plated during times of non-construction. The plans shall also identify haul routes for trucks delivering construction equipment and materials. The traffic control/management plans must include a continual coordination program with the affected agencies to allow for adjustments and refinements to the plan once construction is underway.

**Period of Implementation:** Prior to construction.

**Responsibility for Implementation:** SCWC and relevant contractor

**Responsibility for Monitoring:** CPUC and cities along the pipeline alignment

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC will provide to the CPUC and cities along the pipeline alignment a Traffic Control/Management Plan for comment
- SCWC will provide evidence to the CPUC of approval of Traffic Control/Management Plans by the City Engineer or Public Works Director of each affected city

- The CPUC will monitor the implementation of the Traffic Control/Management Plan.

**MITIGATION MEASURE T-2:** SCWC or its contractor shall prepare a public information program to inform area residents, workers and business owners of the construction schedule and anticipated traffic impacts. Advice will also be provided about alternative access routes. The dissemination of this information will be coordinated with the construction notice described in Mitigation Measure N.1.

**Period of Implementation:** Prior to construction.

**Responsibility for Implementation:** SCWC and relevant contractor

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC shall provide the CPUC with the address list and a copy of all information disseminated to residents, workers, and business owners.

**IMPACT:** *Temporary blockage of vehicular access to properties during construction.*

**MITIGATION MEASURE T-3:** SCWC or its contractor shall provide property owners and tenants likely to have driveway access disrupted by construction activities with seven-day advance written notice of the disruption as described in Mitigation Measure N.1. In addition, disruption to access will be minimized by (i) placing steel plates across trenches so that they can be crossed by car as soon as trenching has been completed; (ii) ensuring that all properties are accessible at the end of each work day; and (iii) backfilling progressively.

**Period of Implementation:** Prior to construction.

**Responsibility for Implementation:** SCWC and relevant contractor

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC shall provide the CPUC with the address list and a copy of all information disseminated to property owners and tenants
- The CPUC will monitor compliance during construction

**IMPACT:** *Temporary disruptions to bus routes during construction.*

**MITIGATION MEASURE T-4:** SCWC or its contractor shall coordinate with Orange County Transportation Authority (OCTA) to identify routes affected by the pipeline construction. Sufficient notification as to the exact dates when delays can be expected or service adjustments will be necessary shall be provided to OCTA to allow for timely posting of these notices. It is recommended that OCTA post notices at bus stops and on buses along affected routes to notify passengers of potential delays or service adjustments on these routes.



**Period of Implementation:** Prior to construction.

**Responsibility for Implementation:** SCWC and relevant contractor

**Responsibility for Monitoring:** OCTA and CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC will provide a copy of the notification provided to OCTA and copies of all pertinent correspondence from OCTA on this matter
- CPUC will coordinate with OCTA regarding necessary service adjustments and notifications to passengers.

**MITIGATION MEASURE T-5:** Traffic control/management plans (see Mitigation Measure T.1) prepared for the affected jurisdictions or agencies shall identify all bus stops in the immediate vicinity of construction zones and shall make provisions for these bus stops to remain accessible. In cases where the blockage of existing bus stops cannot be avoided, SCWC/contractor shall coordinate with OCTA to provide temporary bus stop locations.

**Period of Implementation:** Prior to construction.

**Responsibility for Implementation:** SCWC and relevant contractor

**Responsibility for Monitoring:** CPUC and OCTA

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC will provide a copy of each Traffic Control/Management Plan to the CPUC
- The CPUC will monitor compliance during construction.

**IMPACT:** *Temporary disruption to pedestrian and bicycle circulation during construction.*

**MITIGATION MEASURE T-6:** SCWC or its contractor shall identify bicycle routes that will be affected by the pipeline construction. Temporary bike route signs shall be placed along alternate routes. These routes may be along Bolsa Chica Street itself, so that bicycles will share a lane of traffic with automobiles, or along a parallel street such as Graham Street. Sufficient notification of construction schedules will be given to local jurisdictions to allow for timely placement of alternate bicycle route signs.

**Period of Implementation:** Prior to construction.

**Responsibility for Implementation:** SCWC and relevant contractor

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC will provide a copy of the notification of construction schedule to the CPUC

- SCWC will coordinate with local jurisdictions to ensure bicycle route signs are placed
- The CPUC will monitor compliance during construction.

**MITIGATION MEASURE T-7:** A management plan shall be prepared for the affected jurisdictions or agencies to identify all pedestrian crosswalks in the immediate vicinity of construction zones. Provisions for alternate crosswalks shall be provided to allow safe crossing points for pedestrians over Bolsa Chica Street.

**Period of Implementation:** Prior to construction.

**Responsibility for Implementation:** SCWC and relevant contractor

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC will provide a copy of the management plans to the CPUC
- The CPUC will monitor compliance during construction.

#### K.3.4 ENVIRONMENTAL CONTAMINATION

**IMPACT:** *Workers and/or the public may be exposed to contaminated soil and groundwater during excavation of hydrocarbon-contaminated soils.*

**MITIGATION MEASURE EC-1:** SCWC shall re-evaluate “low” potential sites where construction parameters (trench location and depth) vary from the typical (typical is considered vertical excavation 5 to 7 feet deep, 3 feet wide, work area of up to 50 feet wide). The purpose of this re-evaluation is to determine whether the identified “low” potential sites need to be reclassified as medium or high impact potential sites. A qualified and approved environmental consultant shall perform the review and evaluation, and the results reviewed and approved by the appropriate County Health Department or the State Department of Toxic Substances Control (DTSC) prior to construction.

**Period of Implementation:** Prior to construction.

**Responsibility for Implementation:** SCWC

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- The qualifications and credentials of SCWC’s selected consultant shall be forwarded to the CPUC for review and approval prior to initiating the evaluation.
- SCWC will provide a copy of the review and evaluation to the CPUC.
- SCWC shall provide evidence of approval of the results from the County Health Department or the State Department of Toxic Substances Control. A copy of the approved evaluation shall be sent to the local jurisdiction in which the each site is located (i.e., the local city).

**MITIGATION MEASURE EC-2:** For “medium” potential sites, SCWC shall thoroughly review current agency records followed by site-specific visual inspection of the pipeline route by a qualified and approved environmental consultant. Record review shall identify data confirming no off-site contamination to the pipeline route, adequate remediation of the pipeline route, or agency-certified closure of the site. Visual inspection of the unpaved surface and shallow subsurface (with the aid of a spade or probe) should verify no evidence of off-site discharge, surface stains, or unauthorized dumping. Results of the record review or visual inspection that indicate contamination is present in the pipeline route shall cause medium potential sites to be treated as high potential.

**Period of Implementation:** Prior to construction.

**Responsibility for Implementation:** SCWC

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- The qualifications and credentials of SCWC’s selected consultant shall be forwarded to the CPUC for review and approval prior to initiating the evaluation.
- SCWC will provide a copy of all evaluation results to the CPUC.
- SCWC shall provide evidence of approval of the results from the County Health Department or the State Department of Toxic Substances Control. A copy of the approved evaluation shall be sent to the local jurisdiction in which the each site is located (i.e., the local city).

**MITIGATION MEASURE EC-3:** SCWC shall review current agency records of “high” potential sites to design an investigation program to assess surface waste or debris and underlying soil. A qualified and approved environmental consultant shall perform the review. Record review of these potential sites must determine that the horizontal limits of soil contamination do not extend near the proposed trench area. Where the limits of contamination are uncertain a soil vapor survey or soil sampling should be conducted along the affected length of the proposed excavation and surface disturbance areas. Laboratory test results from these site investigations should be reported to the State Department of Toxic Substances Control (DTSC) or the County Health Department and include an assessment of the contamination potential in the trench area. Subsurface investigation for high potential sites shall determine appropriate worker protection, hazardous material handling, and disposal procedures appropriate for the subject site. The feasibility of on-site treatment methods shall be evaluated in the hazardous materials handling and disposal plans. Treatment options should include, but not be limited to, soil washing, chemical stabilization/fixation, vapor extraction, thermal oxidation, and bioremediation.

**Period of Implementation:** Prior and during construction.

**Responsibility for Implementation:** SCWC

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- The qualifications and credentials of SCWC’s selected consultant shall be forwarded to the CPUC for review and approval prior to initiating the evaluation.

- SCWC will provide a copy of all test results and evaluations to the CPUC and the local jurisdiction (i.e., the local city).
- SCWC shall provide test results to the County Health Department or the State Department of Toxic Substances Control.
- If on-site treatment methods are required, the CPUC shall review planned procedures.
- The CPUC will monitor all work associated with treatment of environmental contamination.

### K.3.5 GEOLOGY AND SOILS

**IMPACT:** *Potential rupture of the pipeline by strands of the Newport-Inglewood fault zone or by the potentially active Los Alamitos fault.*

**MITIGATION MEASURE G-1:** Prior to final design, SCWC shall conduct geologic/geotechnical investigations to document the location, orientation, and direction of anticipated offset for the North Branch, Bolsa-Fairview, and Los Alamitos faults, and, as appropriate, incorporate design recommendations to mitigate fault rupture. This investigation may be conducted in conjunction with the investigations described in Mitigation Measures G-2, G-3 and G-4.

**Period of Implementation:** Prior to construction.

**Responsibility for Implementation:** SCWC

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC will provide a copy of the geologic/geotechnical investigations to the CPUC. SCWC shall indicate to the CPUC what new design features it plans to incorporate into the project along with a justification for its decisions
- After reviewing the recommendations of the geologic/geotechnical investigations and SCWC's justifications for its design decisions, the CPUC shall determine if any additional design features need to be incorporated into the project to reduce the potential for pipeline damage due to fault rupture. The CPUC will evaluate the cost of additional design features against the additional level of protection provided in determining whether additional design features will be required.

**IMPACT:** *Strong ground shaking induced by a large event on the Newport-Inglewood fault zone could cause collapse or rupture of the pipeline.*

**MITIGATION MEASURE G-2:** Proper seismic design allows structures to withstand intense ground shaking without collapse. Design of the project facilities shall conform to current codes and specifications. A complete geotechnical engineering investigation shall be completed, and the findings thereof considered, before preparation of final design of the pipeline. This investigation may be conducted in conjunction with the investigations described in Mitigation Measures G-1, G-3, and G-4.

**Period of Implementation:** Prior to construction.

**Responsibility for Implementation:** SCWC

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC will provide a copy of the geologic/geotechnical investigations to the CPUC. SCWC shall indicate to the CPUC what new design features it plans to incorporate into the project along with a justification for its decisions
- After reviewing the recommendations of the geologic/geotechnical investigations and SCWC's justifications for its design decisions, the CPUC shall determine if any additional design features need to be incorporated into the project to reduce the potential for pipeline damage due to intense ground shaking. The CPUC will evaluate the cost of additional design features against the additional level of protection provided in determining whether additional design features will be required.

**IMPACT:** *Liquefaction, lateral spreading, and differential settlement could cause pipeline rupture.*

**MITIGATION MEASURE G-3:** Geotechnical investigations shall be completed in areas classified as having moderate to very high liquefaction potential and areas of potential differential settlement and the findings thereof considered before final design of the Proposed Project. Liquefaction can be mitigated by several methods including dynamic densification, ground improvement, grouting, or removal of suspect soils. This investigation may be conducted in conjunction with the investigations described in Mitigation Measures G-1, G-2, and G-4.

**Period of Implementation:** Prior to construction.

**Responsibility for Implementation:** SCWC

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC will provide a copy of the geologic/geotechnical investigations to the CPUC. SCWC shall indicate to the CPUC what new design features it plans to incorporate into the project along with a justification for its decisions
- After reviewing the recommendations of the geologic/geotechnical investigations and SCWC's justifications for its design decisions, the CPUC shall determine if any additional design features need to be incorporated into the project to reduce the potential for pipeline damage from liquefaction, lateral spreading, or differential settlement. The CPUC will evaluate the cost of additional design features against the additional level of protection provided in determining whether additional design features will be required.

**IMPACT:** *Damage to the pipeline from corrosive soils.*

**MITIGATION MEASURE G-4:** A thorough geotechnical investigation to fully characterize the presence, extent, and corrosion potential of the soils along the pipeline alignment shall be completed prior to final design. Based on the results, appropriate measures can be designed to minimize potential impacts from corrosion. This investigation may be conducted in conjunction with the investigations described in Mitigation Measures G-1, G-2, and G-3.

**Period of Implementation:** Prior to construction.

**Responsibility for Implementation:** SCWC

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC will provide a copy of the soils investigations to the CPUC. SCWC shall indicate to the CPUC what new design features it plans to incorporate into the project along with a justification for its decisions.
- After reviewing the recommendations of the soils investigations and SCWC's justifications for its design decisions, the CPUC shall determine if any additional design features need to be incorporated into the project to reduce the potential for pipeline damage from corrosive soils. The CPUC will evaluate the cost of additional design features against the additional level of protection provided in determining whether additional design features will be required.

### **K.3.6 CULTURAL RESOURCES**

**IMPACT:** *Pipeline construction could disturb cultural resources as it passes through areas of moderate to high sensitivity for prehistoric and historic resources.*

<p><b>MITIGATION MEASURE CR-1:</b> SCWC shall provide a qualified archaeological monitor at excavations for the proposed pipeline where it passes through areas of moderate to high sensitivity for prehistoric and historic resources. If evidence of cultural remains is encountered, Native American representatives will be notified and afforded the opportunity to review the find. During the archaeological monitoring program, the archaeological monitor will visually inspect the excavation areas and have the authority to halt any grading or construction activities in areas where cultural resources are identified. Once identified, the monitor(s) will complete an initial assessment and, if the resources appear to represent a significant find, they will halt activities until a Phase II evaluation of the resource(s) can be completed (in accordance with the CEQA Guidelines).</p>
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**Period of Implementation:** During construction.

**Responsibility for Implementation:** SCWC

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- The CPUC will need to approve SCWC's archaeological monitor prior to construction. The CPUC will consult with appropriate Native American representatives prior to approving the archaeological monitor.
- SCWC's archaeological monitor will provide monthly status reports to the CPUC describing monitoring results
- SCWC's archaeological monitor shall immediately report the discovery of any resources during construction to the CPUC

- The CPUC will be notified of the results of the initial assessment of identified resources, including any decision to halt construction activities
- The results of any Phase II investigations shall be provided to the CPUC and the CPUC's monitor will verify that Phase II investigations have been completed prior to re-initiating construction at that location.

**IMPACT:** *Impact to area identified as CA-ORA-83/86/144 (at Los Patos and Bolsa Chica Road).*

**MITIGATION MEASURE CR-2:** SCWC shall provide a qualified archaeological monitor and Native American monitor at the excavations for the proposed pipeline in the vicinity of prehistoric site CA-ORA-83/86/144. During the archaeological monitoring program, the archaeological monitor will visually inspect the excavation areas and have the authority to halt any grading or construction activities in areas where cultural resources are identified. Once identified, the monitor(s) will complete an initial assessment and, if the resources appear to represent a significant find, they will halt activities until a Phase II evaluation of the resource(s) can be completed (in accordance with the CEQA Guidelines).

**Period of Implementation:** During construction.

**Responsibility for Implementation:** SCWC

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- The CPUC will need to approve SCWC's archaeological monitor prior to construction. The CPUC will consult with appropriate Native American representatives prior to approving the archaeological and Native American monitors.
- SCWC's archaeological monitor will provide monthly status reports to the CPUC describing monitoring results
- SCWC's archaeological monitor shall immediately report the discovery of any resources during construction to the CPUC
- The CPUC will be notified of the results of the initial assessment of identified resources, including any decision to halt construction activities
- The results of any Phase II investigations shall be provided to the CPUC and the CPUC's monitor will verify that Phase II investigations have been completed prior to re-initiating construction at that location.

**IMPACT:** *Impact to areas peripheral to those identified as CA-ORA-84 and 85 (and 288).*

**MITIGATION MEASURE CR-3:** SCWC shall provide a qualified archaeological monitor and Native American monitor to oversee the excavations of the proposed pipeline in the vicinity of prehistoric site CA-ORA-84/85/288. During the archaeological monitoring program, the archaeological monitor will visually inspect the excavation areas and have the authority to halt any grading or construction activities in areas where cultural resources are identified. Once identified, the monitor(s) will complete an initial assessment and, if the resources appear to represent a significant find, they will halt activities until a Phase II evaluation of the resource(s) can be completed (in accordance with the CEQA Guidelines).

**Period of Implementation:** During construction.

**Responsibility for Implementation:** SCWC

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- The CPUC will need to approve SCWC's archaeological monitor prior to construction. The CPUC will consult with appropriate Native American representatives prior to approving the archaeological and Native American monitors.
- SCWC's archaeological monitor will provide monthly status reports to the CPUC describing monitoring results
- SCWC's archaeological monitor shall immediately report the discovery of any resources during construction to the CPUC
- The CPUC will be notified of the results of the initial assessment of identified resources, including any decision to halt construction activities
- The results of any Phase II investigations shall be provided to the CPUC and the CPUC's monitor will verify that Phase II investigations have been completed prior to re-initiating construction at that location.

**IMPACT:** *Pipeline connection at reservoir site is likely to impact resources associated with prehistoric occupation of Bolsa Chica Mesa.*

**MITIGATION MEASURE CR-4:** The area of the pipeline connection to the underground reservoir on Bolsa Chica Mesa shall be formally tested by SCWC for significant cultural resources prior to grading to ascertain whether this area contains subsurface prehistoric deposits and/or whether or not additional evidence of human remains are present. Based on the results of testing, all grading at the reservoir site must be monitored by a qualified archaeologist and a Native American monitor.

**Period of Implementation:** During construction.

**Responsibility for Implementation:** SCWC

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:



- Test results and evaluations will be provided to the CPUC, including recommendations for archaeological monitoring and information to support the recommendations
- If monitoring is recommended, SCWC's archaeological monitor will provide monthly status reports to the CPUC describing monitoring results
- SCWC's archaeological monitor shall immediately report the discovery of any resources during construction to the CPUC
- The CPUC will be notified of the results of the initial assessment of resources identified during construction, including any decision to halt construction activities and/or conduct additional investigations.
- If Phase II investigations are needed, the results of these investigations shall be provided to the CPUC and the CPUC's monitor will verify that Phase II investigations have been completed prior to re-initiating construction at that location.

### **K.3.7 BIOLOGICAL RESOURCES**

**IMPACT:** *Construction adjacent to Old Bolsa Chica Road may disturb nesting migratory birds using the riparian community in Bolsa Chica Channel.*

<p><b>MITIGATION MEASURE B-1:</b> If construction is to take place between May 15th and August 15th along Old Bolsa Chica Road, a biological survey of the area shall be completed within the two weeks prior to initiation of construction. The survey must be completed by a qualified biologist who shall survey the area for three consecutive mornings for territorial pairs and, if possible, locate any nests. If territorial pairs or nests of a bird listed under the Migratory Bird Act (Title 50 of the Code of Federal Regulations, Section 10.13) are found during the survey period, then construction shall avoid the area completely until August 15 or until two weeks after all nests have fledged, whichever occurs first.</p>
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**Period of Implementation:** During construction.

**Responsibility for Implementation:** SCWC

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC shall report the results of the pre-construction biological survey to the CPUC
- If territorial pairs or nests of a bird listed under the Migratory Bird Act (Title 50 of the Code of Federal Regulations, Section 10.13) are found during the survey period, SCWC shall convey its plans to the CPUC for avoiding the area and the CPUC monitor will verify compliance.

### **K.3.8 PUBLIC SERVICES AND UTILITIES**

**IMPACT:** *Emergency service providers could be blocked or impeded by pipeline construction activities.*

**MITIGATION MEASURE PS-1:** SCWC shall coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles. Police departments, fire departments, ambulance services, and paramedic services shall be notified in advance by SCWC of the proposed locations, nature, timing, and duration of any construction activities and advised of any access restrictions that could impact their effectiveness. At locations where access to nearby property is blocked, provision shall be ready at all times to accommodate emergency vehicles, such as plating over excavations, short detours, and alternate routes. These provisions should be planned in conjunction with local agencies. Traffic Control Plans shall be developed (see Mitigation Measure T.1) which include details regarding emergency services coordination and procedures, and copies shall be provided to all relevant service providers.

**Period of Implementation:** During construction.

**Responsibility for Implementation:** SCWC and relevant contractor

**Responsibility for Monitoring:** CPUC

**Performance Criteria:** The performance of the mitigation measure will be judged by:

- SCWC shall notify affected emergency service providers two weeks prior to the commencement of construction activities in their respective service areas.
- SCWC/contractor shall provide documentation of coordination with service providers to the CPUC prior to the start of construction.

#### **K.4 MITIGATION MONITORING PROGRAM SUMMARY**

Table K-1 on the following page provides an overview of the Mitigation Monitoring, Compliance, and Reporting Program.