

## EXECUTIVE SUMMARY

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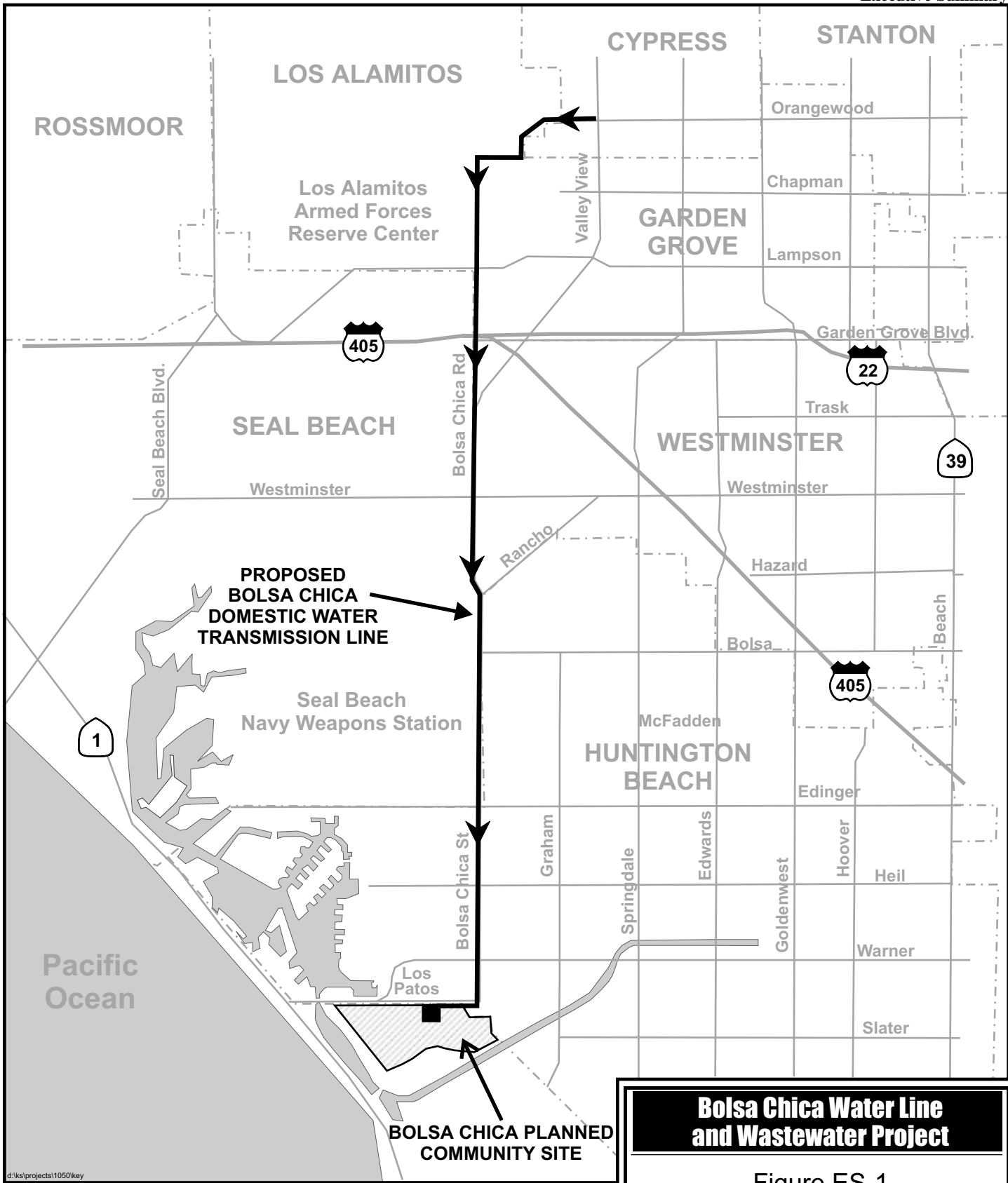
This section provides an overview of the Proposed Project and its objectives, and summarizes the potential impacts anticipated as a result of project implementation. A summary table identifies these impacts and lists the mitigation measures recommended to reduce significant adverse impacts. The alternatives considered in the EIR are also briefly described. For a full description of the proposed project, its impacts, and alternatives, the reader is referred to Sections B, C, and D of the EIR, respectively.

### ES.1 PROJECT OVERVIEW

The Proposed Project results from the filing of two applications for Certificates of Public Convenience and Necessity (CPCNs) with the California Public Utilities Commission (CPUC). The first CPCN application (A.98-11-003) requests approval to construct and operate a water transmission line in western Orange County to supply domestic water to the Bolsa Chica Planned Community, a proposed residential development project on Bolsa Chica Mesa. The second application (A.98-11-015) requests approval for the designation of the project applicant (Southern California Water Company) as the wastewater management agency for the proposed residential development project.

Southern California Water Company (SCWC) proposes to construct an underground water transmission line to deliver water to the Bolsa Chica Planned Community site, located at the southerly terminus of Bolsa Chica Street in unincorporated territory (see Section B.3 for a description of the project location). The water line would extend from the SCWC's existing domestic water system in the City of Cypress to the Bolsa Chica Planned Community site (a total distance of approximately 6.7 miles), terminating at a 4-million gallon underground water storage reservoir to be constructed on the residential development site (see Figure ES-1). Additional water facilities planned for the Bolsa Chica Planned Community site include a distribution pump station, a backbone water distribution system, and a groundwater well with wellhead treatment facilities. These on-site water distribution facilities were previously subject to environmental review in the *1996 Recirculated Draft Environmental Impact Report for Bolsa Chica Local Coastal Program* (County of Orange, 1996; see Section A.4). The proponent for the planned residential development on the Bolsa Chica Mesa is Hearthside Homes, Inc.

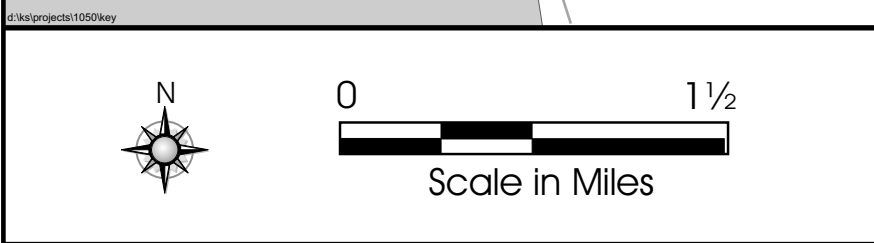
An on-site sewage collection system is planned to serve the Bolsa Chica Planned Community, including local sewage collector lines, a sewage lift station, and a force main required to connect to the facilities of the County Sanitation Districts of Orange County (CSDOC). All sewage generated by the residential development would flow by gravity to the proposed sewage lift station where it would be pumped to an existing CSDOC 21-inch trunk sewer located in Los Patos Avenue. CSDOC would provide sewage treatment and disposal services for the Bolsa Chica Planned Community. SCWC would operate and maintain the on-site wastewater collection facilities. The on-site wastewater facilities were previously examined in the *1996 Recirculated Draft Environmental Impact Report for Bolsa Chica Local Coastal Program* (County of Orange, 1996; see Section A.4).



**Bolsa Chica Water Line and Wastewater Project**

Figure ES-1  
Proposed Water Transmission Line Route

*Aspen*  
Environmental Group



The EIR for the Bolsa Chica Local Coastal Program was certified by the Orange County Board of Supervisors on December 14, 1994. Although the Board's certification was challenged by the Bolsa Chica Land Trust (Bolsa Chica Land Trust et al. v. County of Orange, Superior Court No. 741344), the Orange County Superior Court on February 16, 1996, rejected the challenge, but ordered that the EIR be re-circulated with an amended project description. Since certification of the EIR in 1994, the Bolsa Chica Planned Community project has been reduced in scale. The 1996 LCP would allow the development of up to 2,500 dwelling units on the Mesa (County of Orange, 1996), while the latest configuration of the proposal involves approximately 1,235 dwelling units (SCWC 1999). Following litigation over the LCP, the California Court of Appeal has remanded the Bolsa Chica LCP back to the California Coastal Commission for consideration. Reconsideration of the LCP may result in a further reduction in the number of units to be constructed on the Mesa. Since the California Coastal Commission had not yet adopted any changes to the LCP at the time this EIR was prepared, the dimensions of any additional changes are not known at this time.

Although changes to the development plan for the Bolsa Chica Mesa are anticipated, the on-site water distribution and wastewater collection facilities described in the Bolsa Chica LCP EIR to serve the proposed Bolsa Chica Planned Community project remain basically the same as previously proposed. Until a revised site plan for the development project is available, the exact configuration of the street system to be constructed will not be known and, as a result, the total length and configuration of water distribution lines and wastewater collection lines is not known at this time. It is anticipated that these on-site systems would either be substantially similar to that which was previously proposed or slightly reduced in scale due to a reduction in the total number of residential units to be constructed on the Mesa.

The basic components of the Proposed Project and related facilities are described below in Table ES-1.

**Table ES-1 Summary of Project Components**

Component	Description
<b>Components of Proposed Project</b>	
Water Transmission Line	<ul style="list-style-type: none"> <li>• Length: 35,370 linear feet (approximately 6.7 miles)</li> <li>• Diameter: 18 inches</li> <li>• Material: Ductile iron pipe (pressure class 350)</li> <li>• Typical depth below surface: 42 inches</li> <li>• Corrosion protection: bituminous coating, encased with a polyethylene wrap</li> </ul>
Water Supplier/Source	<ul style="list-style-type: none"> <li>• Service provider: Southern California Water Company (Orange County District)</li> <li>• Water source: Groundwater wells (Santa Ana River Groundwater Basin) and the Colorado River and State Water Project (via MWD)</li> </ul>
Wastewater Collection/Treatment	<ul style="list-style-type: none"> <li>• Wastewater management agency: Southern California Water Company</li> <li>• Wastewater treatment/disposal: County Sanitation Districts of Orange County</li> </ul>
<b>Related Facilities</b>	
Local Water Storage and Distribution	<ul style="list-style-type: none"> <li>• Underground reservoir: 4 million gallon capacity</li> <li>• Distribution pumps: Four 1,100-gpm pumps, one 300-gpm jockey pump, one 1,100-gpm standby pump</li> <li>• Groundwater well: two 1,100-gpm wells (as a backup water source)</li> <li>• Distribution lines: 8", 12", and 16" pipes to distribute water to residences</li> </ul>
Wastewater Collection	<ul style="list-style-type: none"> <li>• Collection system: 8", 12", 15", and 18" sewer lines</li> <li>• Lift station: Two 1,200-gpm pumps, south of Warner Ave. near Los Patos Ave.</li> <li>• Force main: 875' of force main connecting the lift station to an existing 21" CSDOC trunk sewer in Los Patos Ave.</li> </ul>

**ES.2 PROJECT OBJECTIVES**

The water transmission pipeline has been proposed with the basic objective of providing the Bolsa Chica Planned Community with a reliable, long-term domestic water supply. The proposal is designed to meet the projected domestic water demands and fire protection needs of the Bolsa Chica Planned Community. The Proposed Project is also concerned with ensuring that the planned residential community has an adequate and reliable wastewater collection and disposal system. Annexation into District 11 of the County Sanitation Districts of Orange County is proposed to provide the required wastewater treatment and disposal. The basic objectives of the Proposed Project are summarized as follows:

- Provide a reliable, long-term domestic water supply for the Bolsa Chica Planned Community.
- Construct a water transmission system designed to meet the projected domestic water demands and fire protection needs of the Bolsa Chica Planned Community.
- Ensure the provision of an adequate and reliable wastewater collection and disposal system for the Bolsa Chica Planned Community.

### **ES.3 AREAS OF CONTROVERSY**

Section 15123 of the *CEQA Guidelines* requires that an EIR summary identify areas of controversy known to the Lead Agency, including issues raised by other agencies and the public. Various issues of concern were expressed at public scoping meetings for the EIR and through responses to the Notice of Preparation.

The proposed development of Bolsa Chica Mesa has been a subject of controversy for many years. All aspects of plans related to the future disposition of the Mesa and the adjacent Bolsa Chica Wetlands have received ongoing attention from the public, environmental organizations, the media, and local municipalities. As a result, substantial concern has been expressed about plans for the provision of water service to the Bolsa Chica Planned Community site. Part of this concern has revolved around the issue of determining the appropriate water purveyor for the Bolsa Chica Planned Community project. The City of Huntington Beach has indicated that it is the logical water service agency for the Bolsa Chica Planned Community project because the site is located within the City's designated sphere of influence and because the City currently provides water service to adjacent properties. A broader issue of controversy is the conversion of Bolsa Chica Mesa from open space to urban development. Although Orange County's Local Coastal Program (LCP) designates the Mesa for future residential development, there is longstanding opposition to the development of the Mesa from local citizens and interest groups. Legal challenges in recent years to both the LCP and its EIR are evidence of the strong opposition to development of the Mesa (see Section A.4).

The controversy surrounding the proposed development of Bolsa Chica Mesa has carried over to the Proposed Project. Because the Proposed Project would help facilitate the implementation of the proposed Bolsa Chica Planned Community project, it has become the subject of concern and controversy. Although the provision of water and wastewater service is not primary to the issue development on Bolsa Chica Mesa, it is considered a vital factor in allowing plans for development to proceed.

#### **ES.4 ISSUES TO BE RESOLVED**

Most of the issues associated with the implementation of the Proposed Project can be resolved through the application of existing regulations and permitting requirements, or through the implementation of the mitigation measures recommended in this EIR. This report recommends the implementation of a variety of measures designed to reduce or avoid potentially significant environmental impacts. There are, however, a number of issues that are closely related to the administration and approval of the project whose resolution is beyond the scope and purpose of this EIR.

The primary question for the California Public Utilities Commission (CPUC) regarding the Proposed Project is whether to allow SCWC to provide water and wastewater services to the Bolsa Chica Planned Community project. The City of Huntington Beach, being the closest potential service provider, has expressed its interest in supplying services to the Bolsa Chica Planned Community. Indeed, in late 1996 and early 1997, the City and the developer discussed the terms for provision of water and wastewater services from the City. Integral to these discussions were the terms for annexation of the Bolsa Chica Planned Community site into the City of Huntington Beach. The Proposed Project – involving construction of a water transmission line originating in the City of Cypress to serve the Bolsa Chica Planned Community project – emerges from the failure of the City and the proponent of the development project to agree to the terms for annexation. This is now a matter that the CPUC will consider in assessing the applications made by SCWC for Certificates of Public Convenience and Necessity to act as the water and wastewater service provider for the Bolsa Chica Planned Community. This document is designed, in part, to inform that decision-making process.

An important consideration in this decision-making process is the cost of the proposed method of water and wastewater service provision to the ratepayers in SCWC's West Orange County District. The CPUC has broad regulatory authority over the development and operation of utilities and is concerned with, among other things, the interests of ratepayers and the public interest.

A further issue that is yet to be resolved concerns the approval, by the California Coastal Commission (CCC), of a modified Local Coastal Program (LCP) for the Bolsa Chica area. As a result of successful litigation from a coalition of community groups, the CCC is now reconsidering the LCP in the light of the Appellate Court's finding that the eucalyptus grove on the Mesa cannot be removed as previously proposed (see Section A.4). The resulting change to the LCP may alter the final configuration of the Bolsa Chica Planned Community project and potentially reduce the number of dwelling units constructed. Resolution of these pending matters regarding the LCP is independent from the CPUC's consideration of the applications for Certificates of Public Convenience and Necessity filed by SCWC for the Proposed Project.

#### **ES.5 ALTERNATIVES TO THE PROJECT**

Nine alternatives to the proposed project were initially selected for analysis. These were selected through an analysis of alternative pipeline alignments and alternative water sources and from input received from the public and local jurisdictions during the scoping process. These alternatives were screened using three criteria: (i) potential to reduce or avoid impacts; (ii) technical and regulatory feasibility and (iii) consistency with the objectives of the project, as well as with public policy objectives. As a result of this

screening, five of these alternatives were screened using the above criteria. The remaining four alternatives, in addition to the No Project Alternative, were thus selected for evaluation in comparison to the Proposed Project.

The alternatives selected and their impacts in comparison to the Proposed Project are described below.

**Alternative 1: Connection to the City of Huntington Beach System.** The closest feasible alternative for water service for the Bolsa Chica Planned Community is connection to the City of Huntington Beach water supply and distribution system (see Section D.2.1 for a full description). The City has a water main in nearby Warner Avenue. The best point of connection appears to be the intersection of Los Patos Avenue and Warner Avenue; approximately one-third of a mile from the proposed underground reservoir on the Bolsa Chica Planned Community site. The wastewater collection and disposal system would remain as proposed under this alternative.

Since this alignment would be substantially shorter than the Proposed Project's pipeline alignment, the various environmental impacts associated with pipeline construction would be substantially less than those of the Proposed Project. This would include reduced impacts related to construction noise, construction emissions, and traffic disruption from construction in public streets. This alternative would also have substantially reduced compared to the other project alternatives, which each involve the construction of a significantly longer water transmission line. For these reasons, connection to the City of Huntington Beach water system is considered the environmentally superior alternative.

**Alternative 2: Connection to the SCWC System via the Anaheim-Barber City Channel.** This alternative would connect to the SCWC system further east on Orangewood Avenue at Holder Street (see Section D.2.2 for a full description). From the point of connection at Orangewood Avenue and Holder Street, the pipeline would be laid in a generally southern direction along Holder Street/Springdale Street before turning southwest to follow the Anaheim-Barber City Channel to Bolsa Chica Street, where the alignment would continue south within Bolsa Chica Street similar to the Proposed Project. The wastewater collection and disposal system would remain as proposed under this alternative.

This alignment is similar in length to the proposed alignment and utilizes public streets for most of the route. As a result, this alternative would have similar levels and types of environmental impacts related to pipeline construction as the Proposed Project. Because of the slightly greater length of pipeline, this alternative would have marginally greater construction impacts than the Proposed Project in relation to air quality and noise. Potential impacts cultural and biological resources would be slightly reduced because this pipeline route for this alternative traverses somewhat less sensitive areas. The traffic disruption associated with construction in public streets would be comparable to that likely to be induced by the Proposed Project.

**Alternative 3: Connection to the SCWC System via Springdale Street and Graham Street.** This proposed pipeline route would be the same as Alternative 2 from the point of connection with the SCWC water system to the Springdale Street/Meinhardt Road intersection. South of Meinhardt Road, the pipeline would continue south (in the southbound lanes) along Springdale Street to McFadden Avenue, then west along McFadden Avenue to Graham Street (see Section D.2.3 for a full description). The pipeline would

then head south along Graham Street to Heil Avenue, then west on Heil Avenue to Green Avenue; from Green Avenue the alignment continues to Los Patos Avenue, then across Los Patos Avenue to the Bolsa Chica Planned Community site.

Similar to Alternative 2, this pipeline alignment is similar in length to the Proposed Project's pipeline alignment and utilizes public streets for most of the route. As a result, this alternative would have similar levels and types of environmental impacts related to pipeline construction as the Proposed Project. Because of the slightly greater length of pipeline, this alternative would have marginally greater construction impacts than the Proposed Project. The traffic disruption associated with construction in public streets would be comparable to that of the Proposed Project. In general, this alternative would produce impacts largely similar to those associated with the Proposed Project.

**North Seal Beach Wellfields.** This alternative would connect into the North Seal Beach Wellfields on Lampson Avenue (see Section D.2.4 for a full description). From the point of connection with the wellfields, a pipeline would be constructed along Lampson Avenue in an easterly direction to the Bolsa Chica Channel, then follow the Proposed Project route south to the site of the Bolsa Chica Planned Community project on the Bolsa Chica Mesa.

The impacts of this alternative would be generally similar to those associated with the Proposed Project. In three respects however, this alternative would offer environmental advantages. The construction impacts associated with air quality, noise pollution, and risk of effects related to environmental contamination are all slightly lower than for the Proposed Project.

**No Project Alternative.** With the No Project Alternative, SCWC would not serve as the water purveyor or the wastewater management agency for the Bolsa Chica Planned Community site and the proposed 6.7-mile domestic water transmission line would not be constructed. As a result, the various impacts associated with construction and operation of the proposed water transmission line would not occur. Without the development of the Proposed Project, the proponent of the Bolsa Chica Planned Community would be forced to find an alternative water supply. Presumably, the alternative water sources that might be considered include water service from a nearby city (see Alternative 1) or connection to another water source (such as Alternative 4). The developer could even pursue various alternatives not examined in detail in this EIR (see alternatives eliminated from further consideration in Section D.1.4).

## ES.6 SUMMARY OF IMPACTS AND MITIGATION MEASURES

The impacts that would result from implementation of the Proposed Project are summarized in Table ES-2. The impacts identified in this table correspond to those contained in the complete impacts analysis presented in Section C of the EIR. Also listed are the mitigation measures proposed to reduce impacts classified as significant. The following system is used to classify the significance of impacts:

- **Class I: Significant Unavoidable Impact.** Class I impacts are significant adverse effects that cannot be mitigated to below a level of significance through the application of feasible mitigation measures. Class I impacts are considered significant and unavoidable.

- **Class II: Significant but Mitigable Impact.** A Class II impact is a significant adverse effect that can be reduced to a less-than-significant level through the implementation of mitigation measures presented in the EIR.
- **Class III: Less-than-significant Impact.** A Class III impact is a minor change or effect on the environment caused by the proposed project that does not meet or exceed the criteria established to gauge significance. Less-than-significant impacts do not require mitigation.
- **Class IV: Beneficial Impact.** Class IV impacts represent beneficial effects that would result from project implementation



**Table ES-2 Summary of Impacts and Mitigation Measures**

Note: Mitigation measures are not required for Class III impacts; these are recommended measures only.

Impact	Class	Mitigation Measures
<b>Air Quality</b>		
<p>NOx emissions from construction activities would exceed the SCAQMD emission thresholds, and thus would be considered a short-term impact to local air quality conditions.</p>	I	<p>A-1 Construction equipment shall be maintained in tune, per manufacturing specifications. SCWC/contractor shall provide a maintenance schedule for all vehicles and equipment. SCWC/contractor shall provide a certification from a third-party certified mechanic stating the timing of all internal combustion construction equipment engines have been properly maintained. SCWC/contractor shall recertify each piece of construction equipment/vehicle based on the maintenance schedule.</p> <p>A-2 SCWC/contractor shall use catalytic converters on all gasoline equipment (except for small [2-cylinder] generator engines). If this measure is not implemented, emissions from gasoline equipment shall be offset by other means (e.g., Emission Reduction Credits). SCWC/contractor shall provide a certification from a third-party certified mechanic stating that a catalytic converter is installed on each applicable vehicle and gasoline-fueled equipment.</p> <p>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. 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.</p> <p>A-4 Substitute small electric powered equipment for diesel and gasoline powered equipment, where feasible. SCWC shall submit an analysis to the CPUC showing available electric equipment and demonstrate their feasibility for this project.</p> <p>A-5 Cease construction 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. SCWC/contractor shall document in a written log the ozone forecast on a daily basis.</p> <p>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. SCWC/contractor shall provide documentation of warranty and manufacture date or a certification from a third-party certified mechanic stating that all diesel construction equipment engines are utilizing high-pressure fuel injectors.</p> <p>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.</p> <p>A-8 Use only solar powered traffic signs (no gasoline-powered generators shall be used).</p> <p>A-9 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.</p>
<p>VOC, SOx, CO, and PM10 emission levels from construction activities would be below the SCAQMD emission thresholds, and thus would be considered adverse but less than significant.</p>	III	<p>None required.</p>
<p>Operational emissions would be minimal. but would be</p>	III	<p>None required.</p>

Impact	Class	Mitigation Measures
considered adverse to local air quality conditions		
<b>Noise</b>		
Noise from construction activities could disturb adjacent land uses	II	<p>N-1 SCWC shall provide all businesses and residents adjacent to the pipeline alignment with seven days advance notice of the commencement of construction in the vicinity. Notification shall be provided by mail. In addition, SCWC shall notify other potential users of the public streets that make up the alignment by posting bulletins in neighborhoods that could be affected and by placing notices in local newspapers. These notices will state specifically where and when construction will occur in the area. Notices shall provide information on the types of potential disruption, such as noise, traffic and access problems, and will suggest how these inconveniences can be minimized (see Mitigation Measure T-2).</p> <p>N-2 SCWC shall 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 issued (refer to Mitigation Measure N-1) shall advertise the community liaison telephone number.</p> <p>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. SCWC or its contractor shall maintain written certification of muffler condition and make it available upon request to the CPUC-approved construction monitor.</p>
Noise from maintenance and repair operations could disturb adjacent land uses.	III	None required.
<b>Traffic and Circulation</b>		
Traffic added to local streets by construction vehicles	III	None required.
Temporary reduction in service levels on local streets and intersections during construction	I	<p>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). 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.</p> <p>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. This will include information which advises the affected public of alternative access routes. The dissemination of the public information program shall be coordinated with the construction notice described in Mitigation Measure N-1.</p>
Temporary blockage of vehicular access to properties during construction	I/II	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.

Impact	Class	Mitigation Measures
Temporary disruptions to bus routes during construction	II	<p>T-4 SCWC or its contractor shall coordinate with 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.</p> <p>T-5 Traffic control/management plans (T-1) which need to be 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.</p>
Temporary disruption to pedestrian and bicycle circulation during construction	II	<p>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.</p> <p>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.</p>
<b>Environmental Contamination</b>		
Workers and/or the public would be exposed to contaminated soil and/or groundwater during excavation of hydrocarbon contaminated soils.	II	<p>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 DTSC prior to construction.</p> <p>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.</p>
		<p>EC-3 SCWC shall review current agency records of "high" potential sites to design a investigation program to assess surface waste or debris and underlying soil. The review shall be performed by a qualified and approved environmental consultant. 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 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.</p>
Possible exposure of workers and the public to previously undiscovered contaminated soil and/or	II	<p>EC-4 SCWC shall assign trained personnel during active trenching to observe visual evidence of contamination and perform monitoring with appropriate testing equipment (photoionization or flame ionization detectors), sampling and</p>

Impact	Class	Mitigation Measures
groundwater.		direct laboratory testing as necessary to identify areas of previously unknown soil contamination within the excavation. These personnel should meet the federal OSHA requirement for 40-Hour Training for Hazardous Waste Operations and Emergency Response (29CFR1910.120) and be familiar with the calibration and operation of the testing equipment.
<b>Geology and Soils</b>		
Potential rupture of the pipeline by strands of the Newport-Inglewood fault zone or by the potentially active Los Alamitos fault	I	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.
Strong ground shaking induced by a large event on the Newport-Inglewood could cause collapse or rupture of the pipeline.	II	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.
Liquefaction, lateral spreading, and differential settlement could cause pipeline rupture	II	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.
Damage to the pipeline from corrosive soils.	II	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.
<b>Hydrology and Water Quality</b>		
During construction, surface water could be impacted by an increased amount of sediment transported to drainage channels and Huntington Harbor.	III	None required.
Damage to pipeline during a 100-year flood event	III	None required.
Risk of leak or rupture during pipeline operation	III	None required.
Lateral erosion in storm channel resulting in exposure of buried pipeline	III	None required.
<b>Cultural Resources</b>		
Pipeline construction could disturb cultural resources as it passes through areas of moderate to high sensitivity for prehistoric and historic resources	II	CR-1 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).
Impact to area identified as CA-ORA-83/86/144 (at Los Patos and Bolsa Chica Road	II	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 (and Native American) 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

Impact	Class	Mitigation Measures
		find, they will halt activities until a Phase II evaluation of the resource(s) can be completed (in accordance with the CEQA Guidelines).
Impact to areas peripheral to those identified as CA-ORA-84 and 85 (and 288)	II	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 (and Native American) 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).
Pipeline connection at Reservoir Site is likely to impact resources associated with prehistoric occupation of Bolsa Chica Mesa	II	CR-4 The area of the pipeline connection to the underground reservoir on Bolsa Chica Mesa shall be formally tested 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.
<b>Biological Resources</b>		
Construction adjacent to Old Bolsa Chica Road may disturb nesting migratory birds using the riparian community in Bolsa Chica Channel.	II	B-1 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.
<b>Land Use and Recreation</b>		
Short-term disruption to residents, workers and others seeking access to residential, commercial, and industrial land uses.	III	See N-1, N-2, and T-3.
Temporary interference with access to the Eucalyptus Park on Orangewood Avenue.	III	None required.
Temporary interference with access to and use of the Naval Base Golf Course.	III	None required.
<b>Public Services and Utilities</b>		
Emergency service providers could be blocked or impeded by pipeline construction activities.	II	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 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. Documentation of coordination with service providers shall be provided to the CPUC prior to the start of construction.
During construction, temporary traffic closures and increased congestion could potentially increase the commute time to local schools.	III	None required.
Emergency service providers from temporary disruption to traffic flow and congestion resulting from emergency response due to any unforeseen rupture or failure.	III	None required.

<b>Impact</b>	<b>Class</b>	<b>Mitigation Measures</b>
Potential utility service disruptions during construction activities.	III	None required.
Accidental damage to existing utility lines during trenching activities.	III	None required.