



CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200
FAX (415) 904-5400

Tu7a

RECORD PACKET COPY

Date Filed: February 28, 2002
49th Day: April 18, 2002
Staff: TRL-SF
Staff Report: March 20, 2002
Hearing Date: April 9, 2002

**STAFF REPORT
COASTAL DEVELOPMENT PERMIT APPLICATION**

Application File No.: E-01-031

Applicant: Orange County Sanitation District

Project Location: Offshore of Huntington Beach

Project Description: Place 35,000 cubic yards of ballast rock to protect an existing 120-inch ocean outfall, replace scour pad at end of outfall, and repair void under 78-inch ocean outfall.

Substantive File Documents: See Appendix A

SYNOPSIS

This staff report evaluates a proposed project by the Orange County Sanitation District (the District) to add approximately 35,000 cubic yards of ballast rock to an existing 120-inch diameter ocean outfall, replace a scour pad at the end of the outfall, and fill an approximately 23-foot long scoured area along and under an existing 78-inch emergency overflow outfall, all located offshore of Huntington Beach.

The project purpose is to provide increased stability to the existing outfall structures. The applicant based the project design on recent modeling showing that the existing level of outfall stability is not adequate to withstand wave and current energy associated with severe storms.

Staff recommends that the Commission approve the proposed project, as conditioned. Staff has determined that the proposal, as conditioned, will comply with Coastal Act sections 30232 (oil spill prevention, containment, and cleanup), 30233 (filling in coastal waters), 30230 and 30231 (marine resources and water quality), 30253 (hazard prevention), 30210, 30211, and 30212.5 (public access and recreation), 30251 (scenic and visual qualities), and 30253(3) (air quality).

Special Condition 1 requires the applicant to limit rock placement to the project footprint, as described in the CDP application and to use methods that allow relatively precise placement and prevent damage to the outfall. **Special Condition 2** requires the applicant to comply with conditions of a leak detection plan. **Special Condition 3** requires the applicant to inform the National Oceanic and Atmospheric Administration of the project location and characteristics to include on applicable nautical charts of the area. **Special Condition 4** requires submittal of an anchoring plan for review and approval before starting construction. **Special Condition 5** requires the applicant to perform a survey to determine whether *Caulerpa taxifolia* occurs at the project site, and if so, to submit an application for a permit amendment. **Special Condition 6** requires the applicant to inform the U.S. Coast Guard of the location and timing of project construction to include on applicable Notices to Mariners. **Special Condition 7** requires the applicant to submit evidence of an approved spill prevention plan. **Special Condition 8** requires ongoing maintenance and monitoring procedures. **Special Condition 9** requires the applicant to provide copies of all necessary air quality operating permits to the Executive Director before starting project construction.

TABLE OF CONTENTS

1.0 STAFF RECOMMENDATION.....	3
2.0 STANDARD CONDITIONS.....	3
3.0 SPECIAL CONDITIONS	4
4.0 FINDINGS AND DECLARATIONS	6
4.1 Project Description, Setting, and Background	6
4.2 Other Permits, Approvals, and Authorizations	7
4.3 Coastal Act Issues	8
4.3.1 Filling in Coastal Waters.....	8
4.3.2 Marine Resources and Water Quality	11
4.3.3 Oil and Fuel Spills.....	14
4.3.4 Hazard Prevention	15
4.3.5 Public Access and Recreation	17
4.3.6 Scenic and Visual Qualities.....	18
4.3.7 Air Resources	19
5.0 CALIFORNIA ENVIRONMENTAL QUALITY ACT	19
APPENDIX A: Substantive File Documents	20
EXHIBIT 1: Location Map	21
EXHIBIT 2: Site Plan	22
EXHIBIT 3: Drawing of Pipe Shield	23

1.0 STAFF RECOMMENDATION

The staff recommend conditional approval of the permit application.

Motion:

I move that the Commission approve Coastal Development Permit E-01-031 subject to conditions set forth in the staff recommendation specified below.

Staff recommends a YES vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of Commissioners present.

Resolution:

The Commission hereby approves the Coastal Development Permit for the proposed project and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

2.0 STANDARD CONDITIONS

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. **Interpretation.** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

3.0 SPECIAL CONDITIONS

1. **Rock Placement.** Rock shall be placed only within the project footprint as described in the permit application dated November 20, 2001, and shall only be placed using a tremmie pipe and pipe shield to protect the outfall from damage. The new ballast material shall have a minimum rock size of 750 pounds for the portion of the outfall from Stations 27+00 to 50+00 and 300 pounds from Stations 50+00 to 70+00.
2. **Leak Contingency Plan.** Prior to starting project construction, the applicant shall provide to the Executive Director a copy of the final leak contingency plan approved by the Santa Ana Regional Water Quality Control Board (RWQCB). The plan shall include, at minimum, those measures identified in the August 2001 Outfall Contingency Plan, as modified by the following changes:
 - a) Repair equipment described in Section 4.2 of the Plan (including steel plates, bolts, neoprene sealing material, etc.) shall be stored at the project site and shall be immediately available to repair the outfall, if necessary. The applicant shall have divers on call and available to respond to any leak within one hour of detecting a leak.
 - b) In the event of a leak, agencies and organizations listed in Section 4.1 of the Plan shall be notified immediately.
 - c) In the event of a leak, the applicant shall immediately implement flow reduction, flow diversion, and effluent disinfection measures described in Section 5.0 of the Plan.
 - d) The plan shall ensure that discharges that may result from any reasonably foreseeable damage to the outfall will remain within discharge limits established in the California Ocean Plan. This information shall include the maximum expected volume of discharge, the characteristics of the discharge, and the maximum expected concentrations of physical, chemical, and biological constituents in the discharge.
3. **Changes to Nautical Charts:** Within 30 days of completing construction, the applicant shall provide written verification to the Executive Director that the applicant has submitted project-related information to the National Oceanic and Atmospheric Administration (NOAA) to be included on area nautical charts. Information submitted shall include as-built drawings, blueprints, or other engineering documents which depict the completed development; geographic coordinates of the location, using a Differential Geographic Positioning System (DGPS) unit or comparable navigational equipment; and the applicant's point of contact and telephone number.
4. **Anchoring Plan.** Prior to issuance of this permit, the applicant shall provide an anchoring plan for review and approval by the Executive Director. This plan shall identify all areas of hard bottom substrate and the project area and shall include measures to avoid direct and indirect impacts to these areas.

5. ***Caulerpa taxifolia* Survey:** Before starting construction, the applicant shall provide to the Executive Director a copy of the survey done to determine the presence or absence of *Caulerpa taxifolia*, as approved by the RWQCB. The survey shall include the following components:
- a) The survey shall be completed not earlier than 90 days nor later than 30 days prior to commencement or re-commencement of development authorized under this coastal development permit.
 - b) The survey shall include a visual examination of the substrate within the project area and a buffer area at least 10 meters beyond the project footprint to determine the presence of the invasive alga *Caulerpa taxifolia*. The project area includes those areas along the 120-inch outfall where ballast rock is to be placed, the void area to be filled along the 78-inch outfall, and areas to be disturbed as identified in the anchoring plan submitted under Condition #4 above.
 - c) The survey protocol shall be prepared in consultation with the RWQCB, the DFG, and the National Marine Fisheries Service.
 - d) Within five (5) business days of completing the survey, the applicant shall submit the survey to 1) the Executive Director and 2) the Surveillance Subcommittee to the Southern California Caulerpa Action Team (SCCAT). The SCCAT Surveillance Subcommittee may be contacted through William Paznokas, California Department of Fish & Game (858/467-4218) or Robert Hoffman, National Marine Fisheries Service (562/980-4043).
 - e) If *Caulerpa taxifolia* is found within the project or buffer areas, the applicant shall not proceed with the project until 1) the applicant provides evidence to the Executive Director that all *Caulerpa taxifolia* discovered within the project and/or buffer area has been eliminated in a manner that complies with all applicable governmental approval requirements, including but not limited to those of the California Coastal Act, or 2) the applicant has revised the project to avoid any contact with *Caulerpa taxifolia*. No revisions to the project shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.
6. **Navigation:** Before starting construction, the applicant shall provide to the Executive Director evidence that information about the project location and construction schedule was published in the local U.S. Coast Guard's *Notice to Mariners*. Information published shall include names of the vessels involved in the project and radio call signs, sizes of vessels, daily work hours, and telephone numbers for on-site project representatives.

7. **Spill Prevention and Response Plan.** Before starting construction, the applicant shall submit evidence to the Executive Director that the spill response plan required of the project's work vessels and approved by the U.S. Coast Guard has also been approved by the California DFG Office of Spill Prevention and Response.
8. **Project Maintenance and Monitoring.** The applicant shall provide to the Executive Director a copy of the pre-project and post-project video surveys as described in the November 2001 application showing the condition of the outfall structures and location of ballast rock and other support. The applicant shall provide pre-project surveys before starting project construction and shall provide the post-project survey within 30 days of completing project construction. The applicant shall also perform a video survey of the structures every 5 years as described in the District's Ocean Outfall Monitoring Program and after each storm event of equal to or greater than a 10-year recurrence level (i.e., a "10-year storm") to ensure rock has not moved outside the project footprint and the outfalls and associated structures are not leaking. The applicant shall provide the Executive Director with a report that summarizes the findings of these 5-year and significant storm event surveys within 60 days of completing each survey.
9. **Air Quality.** Before starting construction, the applicant shall provide to the Executive Director copies of all final certifications required from the Air Quality Management District for operating vessels to be used during the project.

4.0 FINDINGS AND DECLARATIONS

The Commission finds and declares as follows:

4.1 Project Description, Setting, and Background

The project is located offshore of Huntington Beach. It includes three main elements: 1) placing approximately 35,000 cubic yards of additional ballast rock along an approximately 4300-foot length of a 120-inch diameter outfall from the Orange County Sanitation District (hereinafter "the District") sewage treatment plant; 2) replacing a damaged scour pad at the end of the outfall; and, 3) using concrete to fill a scoured area about 23 feet long, up to 10 feet wide, and up to three feet deep that has developed beside and beneath the 78-inch diameter emergency outfall.

The 120-inch outfall was originally constructed in the late 1960s and early 1970s. It extends approximately 4 miles offshore and then turns northward for another mile and ends at a water depth of about 190 feet. The 78-inch diameter outfall was built in 1954 and served as the District's primary outfall until 1971. It now serves as an emergency outfall only. Other than periodic testing, it has not been used since the 120-inch outfall replaced it as the primary discharge point in 1971. The 78-inch outfall runs approximately one-and-one-half miles offshore and then turns northward with a 970-foot diffuser section that ends in a water depth of about 60 feet.

The 120-inch diameter outfall discharges up to 480 million gallons per day (mgd) of partially treated sewage pursuant to conditions of an NPDES ocean discharge permit issued by the U.S. EPA and Santa Ana RWQCB in 1998. This project will not change the capacity of the outfall, nor will it change the volume or constituents of the discharge. The outfall's endgate was originally designed to open when discharge volumes exceeded the outfall's design capacity of 480 mgd. It opened during severe storms in December 1995 when flows through the outfall reached about 520 mgd. This increased volume damaged the scour pad at the end of the outfall, and the endgate has since been bolted shut to prevent further damage.

The three main elements of project construction include the following:

- 1) The ballast rock placement for the 120-inch outfall requires placement of approximately 35,000 cubic yards of rock along the section of outfall from about one-half mile to one-and-a-half miles offshore in water depths of approximately 30 to 50 feet. It involves transporting rock via barge from an existing quarry on Catalina Island, protecting the outfall during rock placement using a steel pipeshield, and placing the rock using a "tremmie pipe" (or chute) to allow more precise positioning of the rock and to minimize turbidity and the risk of damaging the outfall.
- 2) The scour pad repair involves placing two 8-foot by 16-foot articulated concrete mats over an existing scour pad at the end of the 120-inch diameter outfall in a water depth of about 200 feet. The contractor will also remove several pieces of metal and debris at endgate of the outfall.
- 3) The scour repair on the 78-inch outfall involves pumping Class C concrete (for use in seawater) into an area approximately 23 feet long, up to 10 feet wide, and up to 3 feet deep along and under the outfall approximately one mile offshore in a water depth of about 50 feet. After the area is filled with concrete, the contractor will place concrete-filled bags around the perimeter in an area approximately 40 feet long, six to eight feet wide, and two feet deep.

4.2 Other Permits, Approvals, and Authorizations

The project is also subject to the following permits and approvals:

- CEQA exemption – issued October 25, 2001 by Orange County.
- Exemption from permitting, California Department of Fish and Game (DFG) letter, November 6, 2001.
- Regional Water Quality Control Board (RWQCB), Santa Ana Region – Waiver of Waste Discharge Requirements and Issuance of Clean Water Act Section 401 Water Quality Certification, issued February 26, 2002.
- State Lands Commission – project considered maintenance under Lease #PRC 3349.9, per letter of June 1, 2001.
- Shipboard Oil Pollution Emergency Plan approved by the U.S. Coast Guard, October 4, 2000.
- Section 404 permit from the U.S. Army Corps of Engineers (to be issued).

4.3 Coastal Act Issues

4.3.1 Filling in Coastal Waters

Section 30233 of the Coastal Act states:

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.

(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.

(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource dependent activities.

Coastal Act section 30233 restricts the Commission from authorizing a project that requires filling open coastal waters unless it meets three tests. The first test requires the proposed activity to fit within one of eight categories of uses described in Coastal Act section 30233(a)(1)-(8). The second test requires that there be no feasible less environmentally damaging alternatives to

the fill. The third test mandates that feasible mitigation measures be provided to minimize the project's adverse environmental effects.

- 1) Allowable Use Test: Coastal Act section 30233(a)(1) allows fill in open coastal waters for expanded coastal-dependent industrial facilities. Section 30101 of the Coastal Act defines the term "coastal-dependent" to mean "any development or use which requires a site on, or adjacent to, the sea to be able to function at all." The purpose of this fill is to provide increased stability for existing outfalls used to discharge wastewater from a sewage treatment plant, a large industrial facility owned and managed by the Orange County Sanitation District. Until the facility is no longer needed to process wastewater generated within the District's service area, it will continue to discharge effluent into the Pacific Ocean. This particular facility is coastal-dependent because there is no location other than the ocean where the applicant can discharge up to 480 mgd of effluent. It does not follow, however, that all wastewater treatment facilities can be classified as coastal-dependent. For example, there are alternative wastewater treatment, disposal, and management methods that do not involve the discharge of effluent to an adjacent waterbody available today that did not exist when this facility was constructed. However, there are no feasible alternatives at this time to the continued operation of this facility. Therefore, in this instance, the Commission finds that the proposed increase in fill of open coastal waters for enhancing the stability of the outfall is an expansion of a coastal-dependent industrial facility.
- 2) No Feasible Less Environmentally Damaging Alternatives: The second test of section 30233 requires an assessment of whether there are feasible less environmentally damaging alternatives. Because the project involves the repair of two existing outfalls, feasible alternatives evaluated were focused on reducing the amount of fill necessary to carry out the repair rather than avoiding fill placement altogether.

- Placing ballast rock: To minimize the amount of fill used to provide the necessary stability, the applicant performed extensive modeling to determine the most stable rock to use for ballast. The applicant used numerical and physical models to establish the minimum stable rock size and the gradation of rock needed to protect the outfall. A tremmie pipe will be used to place the rock along the outfall. This effort should provide control over the rock placement and keep the ballast rock within the identified footprint. The use of the tremmie pipe to place ballast rock will also result in the need for less permanent fill, due to its ability to place rock more precisely where it is needed on and near the outfall structure.

In addition to evaluating measures to minimize the amount of permanent fill, the applicant evaluated alternatives to minimize temporary fill needed during construction to protect the outfall. Along with the pipeshield, the applicant evaluated placing much smaller cushion stone over the outfall before placing the ballast rock. This would have resulted in permanent rather than temporary fill, and would have likely resulted in increased water column turbidity due to higher amounts of rock dust in the smaller cushion stone. It would have also increased the weight on the outfall

pipe, potentially creating structural concerns, and may have decreased the stability of the larger ballast rock placed on top of the cushion rock. The applicant also considered using bundled PVC pipe to shield the outfall during ballast rock placement, but this was found to be impractical due to difficulties moving the pipe bundle after placing the ballast rock.

The applicant will also perform pre-project surveys on the outfall structure in the area of the ballast rock placement. This will not only determine the outfall's existing condition, but may allow the applicant to better determine more precisely where ballast rock should be placed and if there are areas where ballast rock placement can be minimized or avoided.

- End gate repairs: The applicant determined that the 350 square foot area to be covered by the two articulated concrete mats would be the minimum necessary to protect the end gate area from further scour. The articulated mats will be placed at the mouth of the outfall in an area already experiencing ongoing disturbance and should not result in more than minimal and temporary turbidity impacts that are within the limits established in the project's water quality certification.
- Using concrete in the void under and adjacent to the 78-inch outfall: The applicant considered placing rock in this void area instead of using concrete. Placing rock was considered infeasible, due in part to the void's location under the outfall and due to the size variation within the void area. In addition, the rock needed for that area of the outfall would have been large enough to increase the risk of damage to the outfall.

Placing wet concrete within the void area is expected to result in minimal and temporary impacts, due to the void being a relatively enclosed area. Any adverse water quality impacts, such as increased pH levels, are expected to be localized and within the parameters established by the project's water quality certification. After the wet concrete is in place, concrete bags will be hand-stacked over the area, further encapsulating the wet concrete during its curing period and further diminishing any adverse water quality effects.

- 3) Feasible Mitigation Measures: The third test under section 30233 requires that the project include feasible mitigation measures to minimize adverse environmental effects. In other sections of this report, the Commission has identified several feasible mitigation measures that will minimize those effects. By imposing the special conditions described in this report as part of the coastal development permit, the Commission finds that the third test of Coastal Act section 30233(a) has been met.

For the reasons above, the Commission finds that this coastal-dependent project, as conditioned, has no feasible less environmentally damaging alternatives and includes feasible mitigation measures, and is therefore consistent with section 30233 of the Coastal Act.

4.3.2 Marine Resources and Water Quality

Coastal Act section 30230 states:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Coastal Act section 30231 states:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas, that protect riparian habitats, and minimizing alteration of natural streams.

The project will take place in coastal waters offshore of Huntington Beach. This area provides a number of beneficial uses dependent on the quality of the coastal waters, including habitat for numerous marine species.

Biological Resources – Water Quality and Mitigation Measures: The project includes the risk of water quality degradation during construction through increased turbidity due to rock placement, elevated pH levels due to pouring wet concrete in the water column, and the potential for leaks from the outfall due to damage during construction.

Discharges from the outfall are subject to requirements of an NPDES permit issued by the RWQCB. Those discharges are not proposed to change due to this project, and effluent limitations of the NPDES permit will remain the same. The applicant will also be required to comply with conditions of a water quality certification issued by the RWQCB on February 26, 2002. Conditions of that certification require the applicant to meet water quality standards as established by the RWQCB and the California Ocean Plan, to submit a leak contingency plan for RWQCB review and approval, and to use Best Management Practices during the project to prevent pollutants from entering ocean waters.

Regarding turbidity, the applicant would minimize turbidity impacts by using the tremmie pipe method described above to place ballast rock. This method reduces turbidity by allowing more precise rock placement on or near the existing ballast rock. In addition, the water quality certification issued for the project requires that discharges associated with the project meet provisions of the California Ocean Plan, including the Plan's requirement that discharges not

significantly reduce natural light within the water column. The project will result in temporary and minimal turbidity increases, but is not expected to significantly reduce natural light levels. To ensure these water quality effects are avoided or minimized, the Commission is requiring in **Special Condition 1** that the applicant be required to use the measures described to minimize turbidity during ballast rock placement.

Regarding the use of wet concrete in the water column, the project as proposed minimizes the potential for adverse effects by placing the concrete only in a relatively enclosed void area under and adjacent to the existing outfall structure and ballast rock. Again, the project is subject to provisions of the California Ocean Plan, which requires pH to remain within a range of 6.0 to 9.0 units at all times. The project is not expected to result in pH levels outside of this range due to the concrete being placed in an enclosed area and due to naturally occurring mixing in the water column. The effects of a change in pH, therefore, are expected to be minimal and temporary.

With regard to the potential for leaks from the outfall, the applicant has provided a draft leak contingency plan outlining the District's response if the outfall is damaged during construction. The proposed plan calls for measures such as temporarily storing effluent within the onshore facility, rerouting effluent away from the outfall during the time needed to make repairs, and disinfecting the effluent if necessary. This draft plan includes provisions that require personnel and materials needed for repair to be available within 48 hours of detecting damage or leaks. The RWQCB has required in its certification that the applicant submit a final plan for review and approval. The plan is required to confirm that discharge limits during construction remain within the allowable limits established in the District's NPDES permit and the California Ocean Plan. **Special Condition 2** requires that the final version of this plan include provisions ensuring the District stores the equipment needed for repair at the project site and have it available immediately, and that personnel be on call and available within one hour of detecting a leak or damage. It also requires the plan be submitted to the Executive Director before construction begins.

To further reduce the potential for leaks from the outfall due to damage by vessels or vessel anchors, **Special Condition 3** requires the applicant to submit information to the Executive Director showing that information about the project has been provided to the National Oceanic and Atmospheric Administration for inclusion on area nautical charts.

Biological Resources – Species, Habitats, and Mitigation Measures: The project area provides habitat for a wide range of marine species, including several species of marine mammals. Various whale species use the area primarily as part of their migration corridor. The applicant has scheduled project construction to occur during late spring and the summer in order to miss whale migration season, which generally runs from late fall to spring. Other marine mammals may be found in the bay during the construction season, including blue and humpback whales, seals, and sea lions; however, project construction is expected to cause minimal, if any adverse effects on these species. The applicant will minimize underwater sound generated during ballast rock placement by using the tremmie pipe, which is expected to result in minimal, if any adverse impacts. As part of the original project description, the applicant proposed the use of an impact hammer to remove portions of the existing end gate at the end of the 120-inch outfall; however,

the project has been changed to disallow use of the impact hammer due to concerns about the effect of underwater noise on marine mammals. The applicant will instead remove the end gate using weights and pry bars, which will result in minimal, if any, adverse impacts.

The project site also provides foraging and resting habitat for several species of marine birds, including the endangered brown pelican. However, project construction is not expected to cause any more than minimal and temporary impacts to the ability of these species to use the site for foraging and resting.

Project construction will occur in areas primarily consisting of sandy bottom habitat. The species using this type habitat are generally adapted to the types of temporary disturbances that project construction is likely to cause. The project site has several nearby areas of hard bottom habitat which are generally more sensitive to disturbance. To minimize impacts to these hard bottom habitats, the applicant is requiring the contractor to develop an anchoring plan that avoids anchoring in hard bottom areas. Because the hard bottom substrate covers relatively small and scattered areas, anchoring needed to complete project construction can readily avoid those areas. To ensure the applicant avoids impacts to these areas, **Special Condition 4** requires the anchoring plan be submitted to the Executive Director for review and approval before work begins at the project site.

During placement of ballast rock and concrete, some animals living within the construction area will be killed or displaced. Based on biological surveys done in the project area, none of those species are believed to be endangered or threatened. The species are expected to readily recolonize the project area after construction, so the impacts to these species are expected to be temporary and minimal.

The applicant will also be required to provide results of a survey to determine whether *Caulerpa taxifolia* occurs on the project site. *Caulerpa taxifolia* is a highly invasive sea plant that can adversely affect coastal waters and habitat. It has so far been found only in enclosed coastal waters in California and has not been found at the project site; however, it can occur in open waters to 300 feet below the surface. This staff report has not reviewed the proposed project for the effects associated with this species, and so, if the survey shows that *Caulerpa taxifolia* is present, **Special Condition 5** requires the applicant to submit further information to the Executive Director to determine what additional measures may be necessary to avoid the adverse effects associated with the species. The survey is subject to protocol prepared in consultation with the RWQCB, DFG, and the National Marine Fisheries Service. If the survey determines that *Caulerpa taxifolia* is present, the applicant may not proceed with project construction until providing the Executive Director evidence that all of the plant has been eliminated from the project area in a manner that complies with applicable regulatory requirements or that the project has been revised so as to avoid any contact with the plant.

For the reasons above, the Commission finds that the project, as conditioned, will be carried out in a manner protective of marine resources and water quality, and therefore is consistent with sections 30230 and 30231 of the Coastal Act.

4.3.3 Oil and Fuel Spills

Coastal Act section 30232 states:

Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

The proposed project does not involve the transport, use, or disposal of hazardous materials other than the marine fuel oil, lubricants, petroleum products, and concrete that will be part of normal maintenance and repair operations from the construction barge and associated vessels. Nonetheless, the proposed project operations could potentially increase the chance of a vessel collision and a release of oil into the marine waters. However, the risk of an oil spill due to project-related activities is very low.

Coastal Act section 30232 requires an applicant to undertake measures to prevent an oil spill from occurring. In order to minimize the chance of a vessel collision, the applicant will have at least one additional vessel at the project site at all times during project construction that will serve to warn approaching vessels away from the project site. To further minimize risks of a collision, and to ensure that area mariners would have prior notice of the project location and schedule, **Special Condition 6** requires the applicant to provide evidence that information about the project has been published in the local U.S. Coast Guard district's *Notice to Mariners*.

Notwithstanding all efforts to avoid a collision, there is the possibility of an accident that could result in a spill. To provide protection against the spillage of petroleum products, the applicant has provided a copy of the Shipboard Oil Pollution Emergency Plan for the construction barge as approved by the U.S. Coast Guard. This document contains preventive measures and procedures to be followed in the event of a spill of fuel, hydraulic fluids, or other types of hazardous materials. It also provides the location and means for contracting additional cleanup resources to be used if the spill exceeds the clean-up capability of the cable vessel.

The applicant is also required to submit to the DFG Office of Oil Spill Prevention and Response ("OSPR") a non-tank vessel oil spill contingency plan for its work vessel because it is larger than 300 gross tons, pursuant to the requirements set forth in 14 CCR §825.03-827.02. **Special Condition 7** requires the applicant, before beginning construction, to submit evidence to the Executive Director that the OSPR has approved the required non-tank oil spill contingency plan.

With these measures in place, and as conditioned, the Commission finds the project adequately protects against spills and includes necessary measures to contain and cleanup potential spills, and is therefore consistent with the requirements of Coastal Act section 30232.

4.3.4 Hazard Prevention

Coastal Act section 30253 states:

New development shall:

- (1) *Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
- (2) *Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs...*

The primary purpose of the proposed project is to reinforce existing structures to prevent them from being damaged by strong current or wave action. At present, the 120-inch diameter outfall is protected by a blanket of ballast rock that was sized and placed based on modeling done in the 1960s. This existing ballast rock has a median size of about 150 pounds in the nearshore area and 35 pounds offshore. In general, this ballast has functioned well, but in some locations, the rock has slumped or settled and portions of the outfall are exposed. This long-term deterioration of the ballast was one indication that the new proposed project should re-examine the appropriate size ballast for the area's wave regime. Also, since the 1960s, there have been several major storm events that have provided more data for developing a design storm event and that have, in many locations, provided a revised understanding of significant storm events.

The proposed increase in protection is based on both a new design storm event and detailed numerical and physical modeling. This modeling used more recent and more complete storm data showing that wave energy from design storms should be greater than what was predicted in the original modeling. This modeling effort led to the proposed use of larger rock than what is now being used. For the nearshore area, the rock will have a minimum median size of 750 pounds (ranging from 400 to 1,500 pounds). In the offshore area, the minimum median size drops to 300 pounds (ranging from 100 to 590 pounds).

The project will provide an additional level of safety and stability for the outfall structures. This increased stability will also reduce hazards to public health over the long term by decreasing the risk of effluent leaks or spills due to storm damage. However, the project will increase short-term risk of damage or leaks to the outfall during project construction due to the possibility that ballast rock placement may crack the outfall pipe or cause pipe sections to separate. The applicant has taken several measures to minimize this risk, including requiring the contractor to use a "tremmie pipe" and pipe shield during rock placement, implementing a contingency plan if the outfall is damaged, and performing pre-and post-project surveys to ensure the outfall is in working condition.

- Ballast rock placement: The "tremmie pipe" method of ballast rock placement uses a chute extending from the construction vessel to guide the ballast rock to a particular location on or near the outfall structure. It provides a controlled method to place the rock and prevents

inadvertent placement directly on the outfall pipe. To further minimize the risk of outfall damage, the applicant will use a “V”-shaped steel pipeshield approximately 14-feet wide and 30-feet long and mounted on skids that will be moved along the top of the outfall as the ballast rock is placed (see drawing in Exhibit 3).

- Leak response plan: To further reduce public health risk, the applicant has also developed a draft contingency plan to respond to the potential that ballast rock placement may crack or separate the outfall pipe. This plan is part of the District’s overall emergency leak response plan that includes measures to reduce flows through the outfall, temporarily store effluent within the treatment facility onshore, or disinfect the effluent in the event of a leak. The draft contingency plan requires the contractor to have repair material available within 48 hours to fix leaks or pipeline separations and to notify various agencies and organizations to ensure the public is notified if a leak might affect local beaches or coastal waters.
- Surveys: The applicant will take at least two pre-project surveys and one post-project survey to determine the conditions of the outfall in the project area. This will provide additional assurance that public health risks are minimized before and after the project is constructed.
- Long-term Monitoring: Every five years, the applicant will prepare a video survey of the entire outfall, and will complete additional surveys after major storm events (those with a recurrence interval of 10 years or greater).

Special Condition 1 requires that the applicant use the “tremmie pipe” method and the pipeline shield during rock placement. **Special Condition 8** requires the applicant to submit copies of the pre- and post-project surveys to the Executive Director and would also require additional surveys after significant storms to determine the condition of the outfall and its rock blanket. **Special Condition 2** would require the applicant to provide a final contingency plan as approved by the RWQCB and would require the applicant to immediately notify the Executive Director in the event of a leak. **Special Condition 2** also requires the final plan to include provisions to ensure repair materials are on hand for immediate use, rather than having them available within 48 hours, as is proposed in the draft plan, and to immediately begin emergency flow reduction, temporary storage, notification, and effluent disinfection upon determining that the outfall is leaking.

For the reasons above, the Commission finds that the project, as conditioned, will assure stability and structural integrity, and minimize risks to life and property. The project is therefore consistent with section 30253 of the Coastal Act.

4.3.5 Public Access and Recreation

Coastal Act section 30210 states:

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Coastal Act section 30211 states:

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Coastal Act section 30220 states:

Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

The project involves repairing existing outfalls that discharge up to approximately 480 million gallons per day of effluent from the District's treatment facility. The intent of the project is to provide the outfall structures with additional stability to reduce the risk of spills or leaks that might affect public use and enjoyment of the nearby beaches and coastal waters.

Public Access and Recreation – Beach Use: The public uses the beaches near the project year-round for general recreation, swimming, and surfing. During late July and early August, there is an internationally known surf competition at Huntington Beach, about two miles from the project site. There will be an increase in short-term risks of pipeline damage during project construction. The applicant has taken several precautions to prevent damage to the outfall, as described above in Section 4.3.4, Hazard Prevention. These measures, along with **Special Conditions 1, 2, and 8** as described above, will also reduce the risk of effluent leaks or spills from the outfall that may affect public use of the beaches.

To further reduce risk, the applicant has instructed the contractor not to place rock during the surf contest being held in late July and August, and, if possible, to complete the rock placement before August. The applicant originally anticipated that rock placement would take from six to eight months; however, the current contract now estimates rock placement can be completed in three to four months. This will reduce the amount of time the outfall structure is at risk of damage due to rock placement and would also result in the applicant completing work before peak beach use in late summer.

Public Access and Recreation – Fishing and Boating: There is limited recreational fishing at or near the project site, in part due to fish populations using the rocky substrate provided by the existing outfall and rock blanket. During project construction, the applicant will prevent vessels from using areas near where rock is being placed; however, this limitation will be short-term only and will cover a relatively small portion of the project area at any particular time. Therefore, the project is expected to result in no more than minimal and temporary adverse effects to recreational fishing and boating.

Public Access and Recreation – Additional Barge and Truck Traffic: The applicant has determined that up to nine vessels will be required during project construction to transport and place rock, to provide safety during the project, and to shuttle personnel to and from the project sites. Vessels will use existing commercial and industrial moorage facilities in the area and will not require additional access points on or near the area beaches. The applicant will obtain rock from an existing quarry on Catalina Island, and barges bringing the rock to the site will use existing mooring facilities at the quarry. Because the vessels will use existing moorages and will primarily use moorages meant for larger commercial vessels, there will be minimal, if any, adverse effects to public access and recreation.

For the reasons above, the Commission finds that the project, as conditioned, will not interfere with public access to the sea and is therefore consistent with sections 30210, 30211, and 30220 of the Coastal Act.

4.3.6 Scenic and Visual Qualities

Coastal Act section 30251 states:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded area.

The proposed project will not result in visual changes above the water surface, as all changes to the outfalls will be below the water surface. The applicant will place rock in water depths of from approximately 30 to 200 feet, and will be visible only from vessels passing overhead. Project construction will result in temporary visual impacts due to the presence of barges and other vessels working at the project site; however, these are expected to be minimal visual intrusions, as most of the work will take place from one-half to one mile offshore. The applicant has limited the contractor to no more than the necessary number of vessels needed to construct the project and maintain safety at and near the project site.

For the reasons above, the Commission finds the project will not cause adverse visual impacts and therefore is consistent with section 30251 of the Coastal Act.

4.3.7 Air Resources

Coastal Act section 30253 states in part:

New development shall:

...(3) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.

The proposed project will not result in changes to existing operations at the onshore facility, and there are no air quality issues associated with the outfall structure. Project construction will require the use of up to nine vessels to haul and place rock, provide a water taxi service for personnel, and maintain safety zones around the work site. Air emissions from these vessels during project construction are not expected to be significant; however, the contractor will be required to obtain the necessary air emission certifications from the South Coast Air Quality Management District (SCAQMD). To ensure the project is carried out consistent with the rules and requirements of the SCAQMD, **Special Condition 9** requires the applicant to submit copies of these final approvals before starting project construction.

For the reasons above, the Commission finds the project, as conditioned, is consistent with section 30253 of the Coastal Act.

5.0 CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 13096 of the Commission's administrative regulations requires Commission approval of coastal development permit applications to be supported by a finding showing the application, as modified by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of the CEQA prohibits approval of a proposed development if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant impacts that the activity may have on the environment. The project as conditioned herein incorporates measures necessary to avoid any significant environmental effects under the Coastal Act, and there are no less environmentally damaging feasible alternatives. Therefore, staff recommend the Commission find that the proposed project is consistent with the resource protection policies of the Coastal Act and with the CEQA.

APPENDIX A: Substantive File Documents

Final Submittal – J-39 Outfall Re-Ballast Project: Bid Documents, Specifications, Plans, Reports, August 2001, prepared by Carollo Engineers for Orange County Sanitation District.

Letter authorizing proposed work as a maintenance activity, California State Lands Commission, January 29, 2002.

Letter from Dr. Fredric Raichlen, CalTech, to Mr. David Ludwin, Orange County Sanitation District, regarding the modeling done to determine appropriate ballast rock sizes for project, June 20, 2000.

Orange County Sanitation District 1999 Strategic Plan, Program Environmental Impact Report, June 1999, prepared by Environmental Science Associates.

Orange County Sanitation District J-39 Ocean Outfall Re-Ballast Project California Coastal Commission Permit, from Orange County Sanitation District, August 2001.

Public Notice of Application for Section 404 Permit from U.S. Army Corps of Engineers, December 31, 2001.

Staff Report, Orange County Reballast Project Job No. J-39, November 2001.

Project Location Figure 1

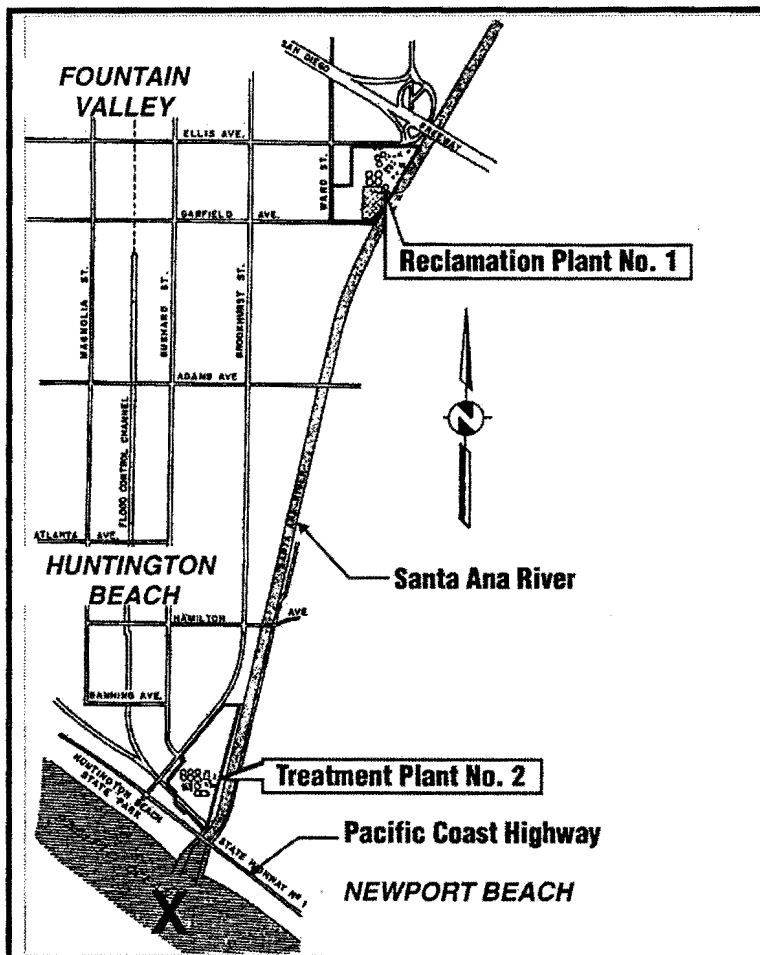
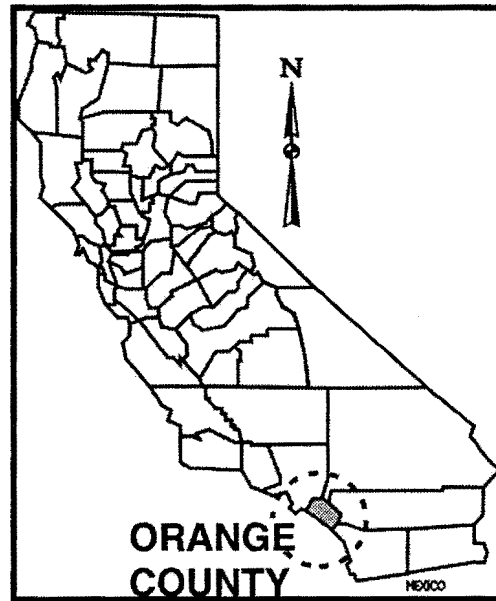


EXHIBIT NO. 1
APPLICATION NO.
E-01-031

Project Details

Figure 2

Map or Project Area

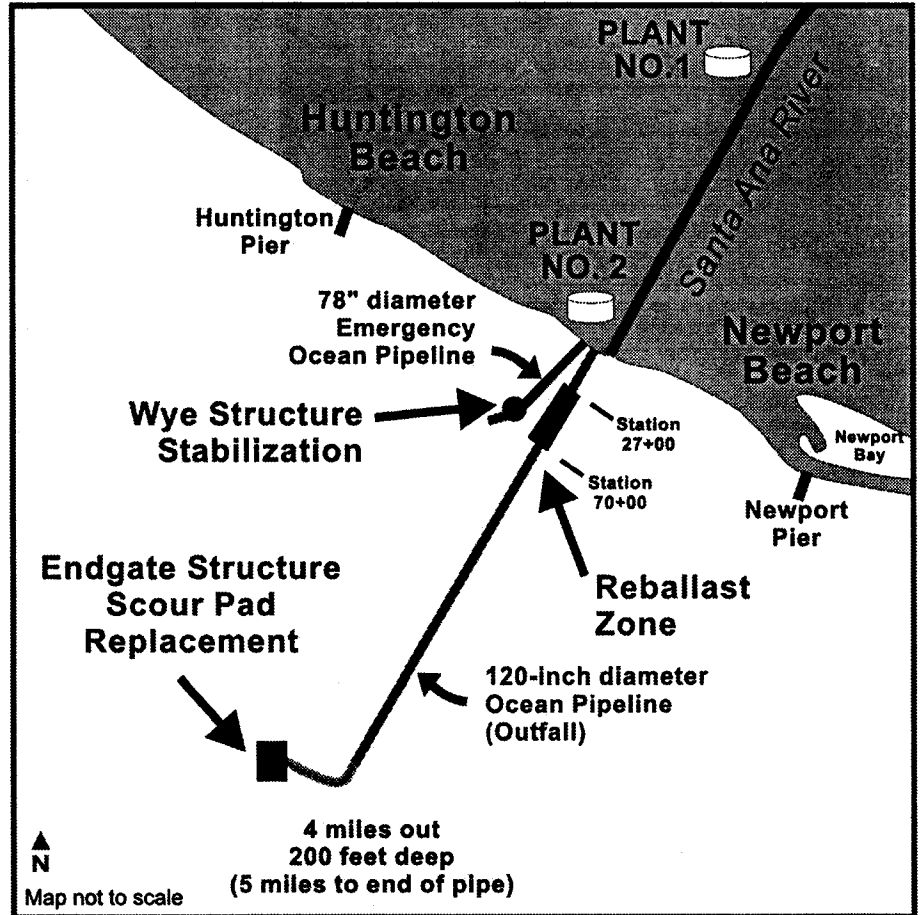


Diagram of Ballast

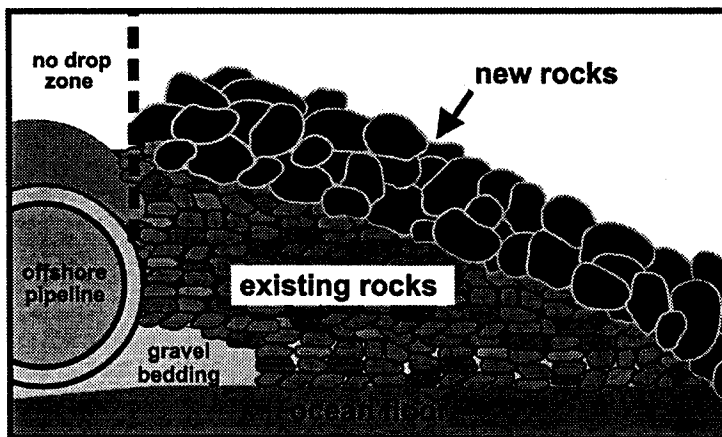
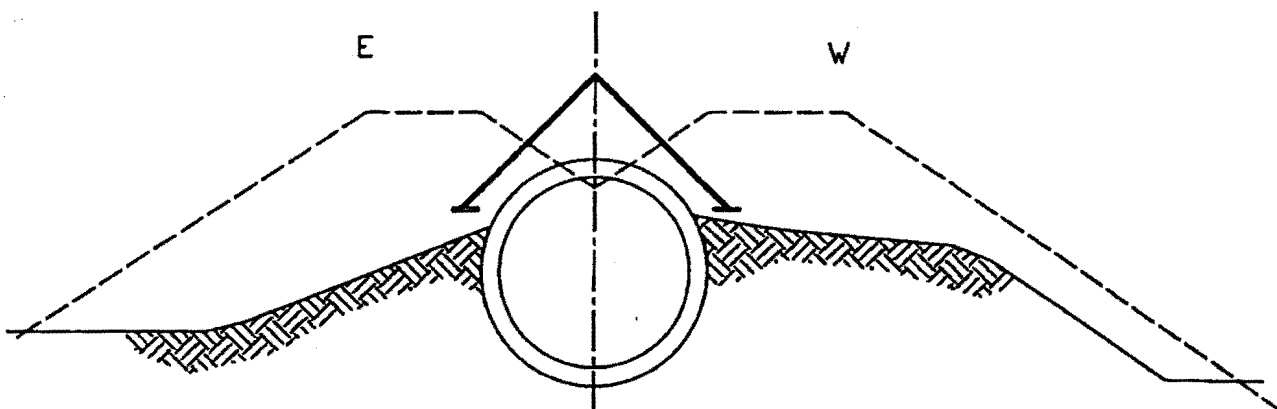
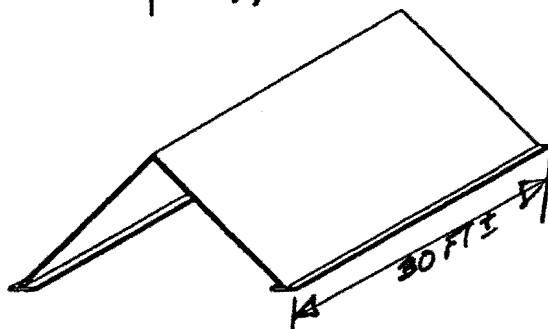
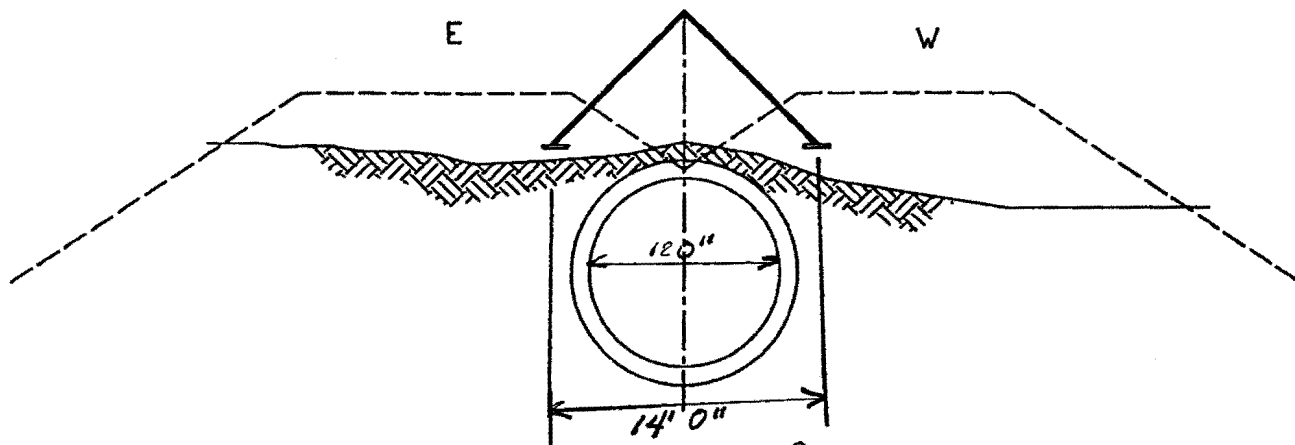


EXHIBIT NO. 2
APPLICATION NO.
E-01-031

58+00



31+00



PRELIMINARY DESIGN
 OPTION 1

EXHIBIT NO. 3
APPLICATION NO.
E-01-031

