



## Staff Report to the Zoning Administrator

Application Number: **07-0730**

**Applicant:** Santa Cruz County Sanitation  
District

**Agenda Date:** April 3, 2009

**Owner:** Various

**Agenda Item #:** 1

**APN:** NON-APN-SPECIFIC

**Time:** After 10:00 a.m.

**Project Description:** Proposal to construct approximately 4.2 miles of sewer lines along an inland alignment in order to replace 3,000 feet of sewer line on the beach between the end of Las Olas Drive and New Brighton State Beach. The route of the replacement sewer pipe is from the pump station in the Rio Esplanade (APN 042-151-30) along portions of Moosehead Drive, Seacliff State Beach access road, State Park Drive, McGregor Drive, and New Brighton Road, and terminates at Park Avenue and Washburn Avenue in Capitola. Work includes: 1) improvements to the existing pump station equipment in the Rio Esplanade, 2) construction of four new pump stations, 3) demolition of the New Brighton Beach pump station and associated bathroom, 4) removal of approximately 6 trees where necessary to construct the project, and 5) 19,000 cubic yards of earthwork. The project requires a Coastal Development Permit and a Significant Tree Removal Permit for the portion of the project within the unincorporated area of Santa Cruz County, and Environmental Review for the entire project including the portions located within the City of Capitola.

**Location:** The proposed improvements are located between Park Avenue east of Washburn Avenue (in the west) and the Rio Esplanade Pump Station (in the east), more or less adjacent to Highway 1, between the City of Capitola and the unincorporated town of Aptos. The project area is accessible via various public roads and includes portions of Moosehead Drive, Beach Access Road (at Seacliff State Beach), State Park Drive, Las Olas Drive, McGregor Drive, New Brighton Road, and Park Avenue. The project area is also located in areas of Seacliff State Beach, Potbelly Beach, and New Brighton State Beach and campground.

**Supervisory District:** 2<sup>nd</sup> District (District Supervisor: Ellen Pirie)

**Permits Required:** Coastal Development Permit and a Significant Tree Removal

**Technical Reports:** Historic Resources Inventory/Archaeological Resources Reconnaissance, Tree Resources Analysis, Biologic Assessment Report, and Geotechnical Engineering Evaluation. These are attached to the Mitigated Negative Declaration.

### Staff Recommendation:

- Adoption of the Mitigated Negative Declaration pursuant to the California Environmental Quality Act.

County of Santa Cruz Planning Department  
701 Ocean Street, 4<sup>th</sup> Floor, Santa Cruz CA 95060

- Approval of Application 07-0730, based on the attached findings and conditions.

### Exhibits

- |    |  |    |                                |
|----|--|----|--------------------------------|
| A. | Project plans, dated 10/16/2008, on file due to large size of plan set | E. | Vicinity Map/Project Route Map |
| B. | Findings   | F. | Zoning and General Plan Maps   |
| C. | Conditions   | G. | Comments & Correspondence      |
| D. | CEQA Determination/Mitigation Monitoring Program                       |    |                                |

### Parcel Information

Parcel Size:	N/A
Existing Land Use - Parcel:	Sewer Line
Existing Land Use - Surrounding:	Residential, Commercial, Parks and Recreation, Visitor Accommodation
Project Access:	Project access is accessible via portions of Moosehead Drive, Seacliff State Beach Access Road, State Park Drive, Las Olas Drive, McGregor Drive, New Brighton Road, and Park Avenue. The project area also includes areas of Seacliff State Beach, Potbelly Beach, and New Brighton State Beach and campground.
Planning Area:	Aptos and City of Capitola
Land Use Designation:	Portion of the project located within County right-of-ways are designated as Public Facilities in Santa Cruz County. The proposed Tannery Gulch and Potbelly Beach facilities will be located in an area designated Residential-Urban Low.
Zone District:	Public and Community Facility, Parks and Recreation, Residential-Low
Coastal Zone:	<input checked="" type="checkbox"/> Inside <input type="checkbox"/> Outside
Appealable to Calif. Coastal Comm.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

### Environmental Information

Geologic Hazards:      Active Faults: No  
                                 Seismic Shaking: Within seismically active region subject to shaking during major earthquake.  
                                 Liquefaction: Coastal beach areas prone to liquefaction  
                                 Landslides: Where stability is a concern the existing pipe will be slip lined with the new pipe and lines and pipes will be installed using directional boring techniques.  
                                 Unstable Soil or result in unstable soil: No  
                                 Expansive Soil: No  
                                 Floodplain/floodway: VE flood zone in area of Aptos Creek. All improvements to the Esplanade pump station are located within the

existing pump station. Mitigated Negative Declaration includes mitigation measures to address identified potential significant impacts.

Soils: Mitigated Negative Declaration includes mitigation measures to limit erosion during construction. Plans and specifications to be reviewed and approved by Environmental Planning prior to construction.

Fire Hazard: Not a mapped constraint

Slopes: Most of the project site is flat with exception of a few gentle to steep slopes.

Env. Sen. Habitat: Yes, see Mitigated Negative Declaration (on file in the Planning Department) and Environmental Review discussion.

Grading: Approximately 19,000 cubic yards, though Special Districts (County of Santa Cruz Sanitation District) projects are exempt from Grading Permits per Government Code Section 53091.

Tree Removal: 6 specific trees proposed for removal (Tannery Gulch Pump Station on New Brighton Road: 8 inch Monterey Cypress, 30 inch eucalyptus, 14 inch Eucalyptus, 26 inch Eucalyptus; McGregor Drive at Mar Vista: 32 inch acacia, 21 Inch Acacia), 4 of which are significant trees-trees greater than 20 inches in diameter at breast height. Another 53 trees may be impacted during construction; however if any must be removed a separate significant tree permit will govern that removal. Project conditioned to comply with recommended mitigation measures including incorporation of tree protection mitigation measures in plans and specifications, review and approval of project construction plans by Environmental Planning, submittal of a contract with a certified arborist. Any additional tree removal not already identified in the Negative Declaration shall require a Significant Tree Removal Permit as noted in the Mitigation Measures.

Scenic: Yes, McGregor Drive along Highway 1, Las Olas Drive, State Park Drive, and the coastline

Drainage: Mitigated Negative Declaration requires an Erosion Control Plan and a Storm water Pollution Prevention Plan incorporated into construction project plans and specifications and implemented during construction. The project conditions of approval require review and approval by Environmental Planning staff prior to construction. As conditioned, site inspections are required by the project Construction Manager or project site inspector.

Archeology: Yes, two recorded sites may be impacted and one other in proximity is highly unlikely to be affected. The mitigated negative declaration requires that prior to construction a qualified archaeologist complete a Section 106 process including inventory of presence/absence testing. This work has been completed and the project is conditioned to comply with mitigation measures.

## Services Information

Urban/Rural Services Line:   X   Inside       Outside  
Water Supply: N/A  
Sewage Disposal: Santa Cruz County Sanitation District  
Fire District: N/A  
Drainage District: Zone 6

## Background

The Aptos Transmission Line was constructed in 1979. It carries sewage from the Rio Esplanade area, the beach areas of Seacliff State Beach Access Drive, Las Olas Drive, Pot Belly Beach and New Brighton Beach, and Park Avenue to the East Cliff Pump Station and ultimately to the Lode Street Treatment Plant in Santa Cruz. Due to pipe failures in previous years the Santa Cruz County Sanitation District is proposing to relocate the sewer line from its present location along the beach front to a mostly inland location and to abandon the existing sewer lines within the beach. The objective of this sewer line improvement project is to prevent sewage spills on the beach that have occurred in the past due to structural failure, as well as to enlarge the line to accommodate existing demand to meet the 10 year design event currently not provided by the existing line. The District is not proposing to remove the line from the beach at this time due to environmental impacts associated with removal of the pipe, as discussed in the Mitigated Negative Declaration.

## Project Setting

The proposed project will be completed primarily along right-of-ways in the County of Santa Cruz and City of Capitola, State Parks Department roadways and State Park beach area, private right-of-ways, and Coastal Commission jurisdiction land area (between Aptos Creek and mean high tide). The Sanitation District is required to obtain all necessary easements for proposed work outside County right-of-ways. The project will be conditioned to obtain all required agreements prior to construction and to comply with all requirements during construction.

## Detailed Project Description

### Existing Sewer Line Location

An existing 24 inch sewer transmission line currently extends from the Rio Esplanade Pump Station, across Aptos Creek, and along Seacliff State Beach Access Road and Las Olas Drive and then along Pot Belly Beach and New Brighton Beach to Park Avenue.

### Proposed Sewer Line Location

The project will be comprised of two sewer transmission lines (one existing 24 inch line to be slipped lined and one new 20 inch line). A map of the route is provided in Exhibit E. It will extend from the Rio Esplanade Pump Station along Seacliff State Beach Access Road and then inland up State Park Drive, along McGregor Drive (Highway 1 frontage road) to Park Avenue. These lines are not intended to expand the sanitation services available to customers or to serve

additional development. The proposed new 20-inch line is intended to provide enough capacity for the Sanitation District to handle a 10-year design event to prevent spills or overflow that have occurred in the past.

In more detail, most of the existing 24-inch in diameter sewer line will be retained and slip lined with an 18-inch in diameter sewer line. A new 20-inch in diameter sewer line will be added alongside this line. The portion along Pot Belly Beach and New Brighton Beaches will be abandoned in place. To substitute for the abandoned section on the beach, two new lines, one 18-inch and one 20-inch line are proposed along Park Avenue, McGregor Drive and State Park Drive, where there are not lines at present.

A smaller 8-inch line and 2 inch line will be added in New Brighton Road to convey effluent from residential development in the Pot Belly Beach Residential Development, New Brighton Road and New Brighton Beach Campground to the main line in Park Avenue.

#### Pump Station Changes

##### A. New Stations

With abandonment of the sewer transmission line on Pot Belly Beach and New Brighton Beach, the areas currently served by a gravity feed lines in this area will require new pump stations to force flows to the proposed inland sanitation line along McGregor Drive and Park Avenue. Four new pump stations are required for this purpose. One pump station is proposed on the east side of New Brighton Road to pump flows from an existing 10 inch gravity feed line serving the Cabrillo College area. One small pump station is also proposed adjacent to the Pot Belly Beach neighborhood to force flow to the proposed pump station on New Brighton Road. Additionally, new pump stations are proposed for the New Brighton Beach and New Brighton Campground. The work within New Brighton Beach and Campground is located within Capitola. It is only mentioned here for completeness of environmental review, though these pump stations are not subject to a County permit.

##### B. Existing Rio Esplanade Station

Proposed project improvements to the Rio Esplanade Pump Station include replacement of 3 existing pumps with 4 larger pumps and a new emergency generator, grinders, control system and electrical service. This equipment upgrade is necessary because the existing pumping capacity of will not handle the 10-year design event proposed by the new lines.

#### **Zoning & General Plan Consistency**

Pursuant to General Plan Policy 2.21.4, "Public utility transmission and distribution facilities, including substations, shall be allowed in all land use districts, provided, however, that the routes or site plans of all proposed gas and electric transmission lines and substations shall be submitted to the Planning Department for review and recommendations prior to the acquisition of necessary land rights."

Coastal Recreation policies of the General Plan are addressed under Local Coastal Program

Consistency below.

A portion of the project is located within the floodway of Aptos Creek. The project is consistent with General Plan Section 6.4.4, which requires new utilities to be located outside 100-year flood hazard area, in that this is a replacement of an existing utility line that is necessary to serve existing users, there is no other feasible location, and the improvements will not increase hazards to other development in the area. In addition, an existing sewer line, which is on the beach in the FEMA V zone (wave run-up zone), is being decommissioned as part of the project.

### **Local Coastal Program Consistency**

The main objectives of the Local Coastal Program, as applied to this proposed project, relate to preserving coastal access, public views, and recreational opportunities along the coast. The project will be consistent with these policies in that although public access to the beach will be temporarily disrupted during construction at New Brighton State Park and Seacliff State Park, at least limited access will be available at all times. The work will be prohibited between Memorial Day (end of May) and Labor Day (beginning of September) to avoid disruption during the peak use period. Also, the applicant has negotiated an agreement with State Parks regarding construction activities along Seacliff State Beach Road and New Brighton Beach. Restrictions enumerated within that agreement are included in the conditions of approval to ensure that disruptions to public beach access are limited in scope and duration, including limiting the transmission line to the area within a 20-foot easement on Seacliff State Beach Access Road, construction of improvements within the State Parks area will be completed between Monday and Friday after Labor Day and prior to Memorial Day in order to minimize impacts to public beach access, and the District is required to provide continuous access to Seacliff and New Brighton State Beaches. Thus, the project will not conflict with public beach access policies.

Pursuant to County Code 13.20.130(b)(1), which requires projects to be visually compatible and integrated with the character of the area, and 13.20.130(d), which requires development to minimize visual intrusion, implement the Local Coastal Program. The proposed transmission line will be placed underground and will not disrupt the existing character of the coastal area where it will be constructed. Views will only be temporarily affected when grading and construction equipment will be present. Furthermore, pursuant to County Code section 13.20.130(b)(2), which requires site disturbance to be minimized and trees encouraged to be retained, the project is consistent with this requirement in that site disturbance will be limited to only that grading required for pipe trenching and pump stations. Tree removal will be limited to those necessary for the construction of the pump station on New Brighton Road and includes tree protection measures, with oversight by a qualified arborist, included in the project construction plans and specifications. Additional discussion regarding tree preservation is included in the Environmental Review section below.

### **Design Review**

The proposed Sewer Line Replacement complies with the requirements of the County Design Review Ordinance, in that any degradation of coastal scenic resources, including the Highway Scenic Corridor, by presence of construction equipment will be temporary. The project includes mitigation measures to address aesthetics including tree preservation measures to protect existing

trees, to minimize the number of trees removed, and to provide replacement trees for trees removed. Furthermore, once project construction trenching is complete the roadways will be restored to pre-construction condition and there will not be long-term visual impacts. Project construction does not require additional lighting and will be completed during the day light hours. Design Review findings are included.

### **Environmental Review**

Environmental review has been completed for the proposed project per the requirements of the California Environmental Quality Act (CEQA). An initial Study/ Proposed Mitigated Negative Declaration has been prepared for the project by EDAW, dated October 2007. The project was reviewed by the County's Environmental Coordinator on January 26, 2009. A preliminary determination to issue a Negative Declaration with Mitigations (Exhibit D) was made on February 2, 2009. The mandatory public comment period expired on March 5, 2009. Two comment letters and responses to comments were received and are attached as Exhibit G. The attached mitigation measures include revised mitigations and monitoring plan to address comments.

The environmental review process focused on the potential impacts of the project in the areas of Biological Resources, Hazards and Hazardous Materials, Public Services, Cultural Resources, Hydrology/Water Quality, Air Quality, Geology Soils, and Transportation. The environmental review process generated mitigation measures that will reduce potential impacts from the proposed development and adequately address these issues. A summary of the potential project impacts and mitigation measures are included in the mitigation monitoring plan, attached as Exhibit D. A more detailed analysis is available in the Initial Study, which is on file with the Planning Department due to the large size of the document and is available for review by the public upon request.

The project includes a mitigation monitoring plan. Each of these mitigation measures as well as the monitoring action to ensure compliance, are included in the conditions of this permit.

#### **A. Scenic Protection/Aesthetic Impacts**

Portions of the project are visible from Highway 1 and coastal beach scenic resource areas. Project related impacts are restricted to removal of six trees (four of which are significant trees by County Code Definition: two acacia trees located on the south side of McGregor Drive, which fronts along the Highway One scenic corridor, and four trees within the building envelope of the Tannery Gulch pump station located on New Brighton Road. Potential construction related impacts may occur to fifty-three trees throughout the project and temporary construction activities are associated with grading and construction related equipment because the sewer line is located below grade within the right-of-way alongside existing trees. However, removal of any of these trees shall require a Significant Tree Removal Permit as noted in the Mitigation Measures. There are no long-term visual impacts anticipated by the project.

Project mitigation measures require revision to the site and grading plans to incorporate tree protection measures in the construction drawings and specifications, as well as submittal of a contract with a certified arborist to ensure proper identification of the tree protection zone and

contract and final construction plans are required to be reviewed and approved by Environmental Planning staff. Any tree removal not specifically identified for removal in the mitigated negative declaration will require a separate significant tree removal permit as noted.

## B. Air Quality

Construction equipment emissions that are expected during project construction include organic compounds, nitrogen oxides, and particulate matter from dust and vehicle emissions.

The project includes a requirement that the project obtain a permit from the Monterey Bay Air Quality Control Board for activities proposed within the Monterey Bay Air Quality Control Board Jurisdiction prior to construction. The project is also required to comply with the Air Quality Control Board requirements and to implement project mitigation measures related to dust suppression and reduction of emissions from construction equipment exhaust. These include incorporation of mitigation measures into the final plans; review and approval by the Air Quality Control Board as part of permit issuance, and site inspections by a qualified inspector or project construction manager, which may include review by Air Quality staff.

## C. Biological Resource Impacts

### 1. Monarch Butterfly

Construction of the proposed Tannery Gulch Pump Station on the east side of New Brighton Road requires removal of one significant eucalyptus tree and several small eucalyptus trees, one significant, in an area known to contain a Monarch Butterfly roosting grove. Project mitigation measures recommend that tree removal or construction activities happen before or after the overwintering period, which occurs between October to March of each year. This is because the tree removal is on the edge of the habitat in an area not documented as roost area. This timing should avoid any potential impacts to the Monarch Butterfly.

### 2. Protected Birds-In General

There are a variety of birds identified as having some potential to roost or nest within the project vicinity. These include the California Brown Pelican, Western Snowy Plover, and Raptors, passerine (perching birds), and non-passerine land birds, Bank Swallow, and Black Swift, and California Yellow Warbler. The mitigated negative declaration identified that removal of vegetation or construction activities within the vicinity of active bird nests could result in impacts to nesting in trees or on the ground. The negative declaration has identified a number of mitigation measures to ensure that these impacts are not significant. They include a requirement that the applicant contract with a qualified biologist to perform nesting surveys prior to the removal or disturbance of vegetation and between survey and commencement of construction. If nesting birds are identified a non-disturbance buffer zone shall be provided and consistent with the Department of Fish and Game requirements. The applicant shall be required to contract with a qualified ornithologist to perform species surveys and work within the buffer zone will be stopped until the species have fledged. All mitigation measures are required to be included in the project plans and specifications and implemented during construction. Project plans and specifications shall be reviewed and approved by Environmental Planning staff.



specifications shall be reviewed and approved by Environmental Planning staff.

3. Snowy Plover

Project work within the beach corridor for capping the sewer line could potentially disturb snowy plover nesting habitat, though this area has been identified as a marginally suitable habitat. Nonetheless, mitigation measures require the project construction avoid the plover-nesting season. In the event that construction must occur during the nesting season, pre-construction nesting surveys are required by a qualified biologist. If identified, the biologist shall establish non-disturbance fencing zones around the nesting areas. If they are not detected, the biologist is required to monitor the beach corridor between survey and commencement of construction to ensure that birds are not present.

4. Tidewater Goby, Steelhead, and Western Pond Turtle

The Tidewater Goby, Steelhead and Western Pond Turtle occur within Aptos Creek. Construction related impacts such as noise and runoff from construction activities related to directional drilling may indirectly impact these species. The project requires a permit from the Army Corps of Engineers and Department of Fish and game. These agencies determine the timing of project work to ensure that impacts to these species are minimized. All requirements from these permits are included as mitigation measures and required to be included in the plans and specifications for review and approval by these agencies. This will include, but may not be limited to, Best Management Practices, silt fencing, confinement of work activities to a minimum disturbance area, temporary soil stockpiles appropriately located so that deposition of material into the creek does not occur, construction equipment located beyond the creek, staging of equipment and materials a minimum of 50 feet from the creek, and restoration of disturbed areas to pre-construction condition.

5. Bat Species

There are eight bat species potentially impacted by removal or disturbance of trees or shrubs that provide roosting habitat for these species. Mitigation measures require the applicant to contract with a qualified biologist for completion of pre-construction presence/absence surveys and establishment of a non-disturbance zone, with coordination with Department of Fish and game, around habitat if their presence is identified.

6. American Badger

Though badgers have an extremely low likelihood of creating dens within the project area, there is the potential that construction activity may destroy or disturb habitat. Mitigation measures require that a qualified biologist complete pre-construction surveys and establish a non-disturbance buffer around dens as needed, or relocate the badger, with coordination with the Department of Fish and Game.

7. Wetlands

The project is expected to result in temporary construction related trenching impacts to .002

acres (87 square feet) of waters of the U.S, as well as permanent impacts from placement of cement within these identified wetlands. The project includes numerous mitigation measures addressing these impacts including a Section 401 approval by the Regional Water Quality Control Board (and coordination with others with jurisdiction over the project), completion of an Erosion Control Plan and a Stormwater Pollution Prevention Plan, and restoration to better than pre-project conditions.

#### 8. Tree removal

The project will require removal of 6 specific trees proposed for removal (Tannery Gulch Pump Station on New Brighton Road: 8 inch Monterey Cypress, 30 inch eucalyptus, 14 inch Eucalyptus, 26 inch Eucalyptus; McGregor Drive at Mar Vista: 32 inch acacia, 21 Inch Acacia), 4 of which are significant trees-trees greater than 20 inches in diameter at breast height. Another 53 trees may be impacted during construction. If any of those 53 must be removed, a separate significant tree removal permit must be obtained. The project is conditioned to comply with tree protection mitigation measures in plans and specifications, review and approval of project construction plans by Environmental Planning, submittal of a contract with a certified arborist to identify the tree protection zone, and submittal of a contract with a qualified tree care contractor for tree trimming. Within the County right-of-way area, any tree removal shall require tree replacements consistent with the 2:1 ratio specified. Tree removal within the New Brighton Beach area shall comply with the New Brighton State Beach General Plan and as addressed in the required agreement between the State Parks and the Sanitation District.

#### D. Cultural Resources

Two recorded sites may be impacted and one other site is in proximity to proposed improvements, but it is highly unlikely to be affected. The mitigated negative declaration requires that prior to construction a qualified archaeologist complete a Section 106 process including inventory of presence/absence testing. This work has been completed and the project is conditioned to comply with mitigation measures to include review and approval of final construction plans by Environmental Planning staff and contract with an archaeologist to conduct monitoring and monitoring report preparation.

#### E. Traffic

Project construction will require temporary lane closures and/or detours that will affect area traffic. Project mitigation measures require a traffic control plan to be reviewed and approved by the County Transportation Engineer, incorporation of approved traffic measures into the final construction plans, and implementation of the measures during construction. This plan will address access to driveways and park facilities, lane closures, and identify alternate traffic routes. One traffic lane will be required to be open at all times.

#### Conclusion

As proposed and conditioned, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

### **Staff Recommendation**

- Adopt the attached Mitigated Negative Declaration pursuant to the California Environmental Quality Act.
- **APPROVAL** of Application Number **07-0730**, based on the attached findings and conditions.

**Supplementary reports and information referred to in this report are on file and available for viewing at the Santa Cruz County Planning Department, and are hereby made a part of the administrative record for the proposed project.**

**The County Code and General Plan, as well as hearing agendas and additional information are available online at: [www.co.santa-cruz.ca.us](http://www.co.santa-cruz.ca.us)**

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## Coastal Development Permit Findings

1. That the project is a use allowed in one of the basic zone districts, other than the Special Use (SU) district, listed in section 13.10.170(d) as consistent with the General Plan and Local Coastal Program LUP designation.

This finding can be made, pursuant to General Plan Policy 2.21.4, in that "Public utility transmission and distribution facilities, including substations, shall be allowed in all land use districts, provided, however, that the routes or site plans of all proposed gas and electric transmission lines and substations shall be submitted to the Planning Department for review and recommendations prior to the acquisition of necessary land rights."

2. That the project does not conflict with any existing easement or development restrictions such as public access, utility, or open space easements.

There are no known conflicts with existing easements.

3. That the project is consistent with the design criteria and special use standards and conditions of this chapter pursuant to section 13.20.130 et seq.

This finding can be made in that the project complies with County Code Section 13.20.130, including, but not limited to:

Pursuant to County Code 13.20.130(b)(1) (projects required to be visually compatible and integrated with the character of the area) and 13.20.130 (d) (development to minimize visual intrusion) in that the proposed transmission line will be placed underground and will not disrupt the existing character of the coastal area where it will be constructed. Views will only be temporarily affected during construction activities when grading and construction equipment will be present. Furthermore, pursuant to County Code section 13.20.130(b)(2), which requires site disturbance to be minimized and trees encouraged to be retained, the project is consistent with this requirement in that site disturbance will be limited to only that grading required for pipe trenching and pump stations. New trenching has been minimized by the re-use of the existing pipe by slip lining techniques. Tree removal has been minimized by realigning the pipe from the original plans in order to avoid several forested areas. Project related impacts are restricted to removal of 6 trees (4 significant trees by County Code Definition- two acacia trees located on the south side of McGregor Drive, which fronts along the Highway One scenic corridor) and 4 trees within the building envelope of the Tannery Gulch pump station located on New Brighton Road. Potential construction related impacts might occur to up to 53 additional trees. However, separate significant tree removal permits are required for any tree removal other than the original six trees. Replacing those trees as a condition of the significant tree removal permits will mitigate visual impacts. Therefore, there are no long-term visual impacts anticipated by the project. There are no long-term visual impacts anticipated by the project.

Pursuant to County Code Section 13.20.130 (c) (2), which requires that development be sited and designed to fit the physical setting carefully to that its presence is subordinate to the natural character of the site, the project will jack and bore the pipeline under Aptos Creek to ensure that the Creek area remains undisturbed.

Pursuant to County Code Section 13.20.130 (d), the proposed project will not result in new permanent structures on the beach or within view of the beach. Construction related grading and equipment will be temporary and thus will be minimized.

Pursuant to County Code Section 13.20.147 (b), the project will only temporarily affect traffic and pedestrian access in the Esplanade area and will not affect the overall traffic, circulation, number of parking spaces and pedestrian circulation. Furthermore, the negotiated agreement between State Parks and the Sanitation District requires that the project improvements in this area be completed during the off peak season to minimize temporary traffic.

4. That the project conforms with the public access, recreation, and visitor-serving policies, standards and maps of the General Plan and Local Coastal Program land use plan, specifically Chapter 2: figure 2.5 and Chapter 7, and, as to any development between and nearest public road and the sea or the shoreline of any body of water located within the coastal zone, such development is in conformity with the public access and public recreation policies of Chapter 3 of the Coastal Act commencing with section 30200.

This finding can be made in that although public access to the beach will temporarily be disrupted, the intent of this project is to improve the overall public health and safety and protect the public access and recreation opportunities (General Plan Objective 7.1a) by rerouting the transmission line to an inland location instead of the beach alignment currently in place. This work will prevent sewage spills on the beach similar to the one that occurred in the Pot Belly beach area and will ultimately meet the objective to provide public access to the recreation opportunities along the coastline. And, although public access to the beach will temporarily be disrupted during construction throughout the State Parks (New Brighton State Park and Seacliff State Park), the work will be prohibited between Memorial Day (end of May) and Labor Day (beginning of September) to avoid disruption during peak use. Furthermore, the applicant has negotiated agreements with State Parks regarding construction activities along Seacliff State Beach Road and New Brighton Beach. Any restrictions enumerated within these agreements will be included in the conditions of approval to ensure that disruptions to public beach access are limited in scope and duration.

5. That the proposed development is in conformity with the certified local coastal program.

Pursuant to Local Coastal Program, this use is an allowed use in all zone districts, as well as the General Plan and Local Coastal Program land use designations that apply to this project (PF, R-UL, PR).

The main objectives of the Local Coastal Program that relate to this project include coastal access, public views, and recreational opportunities along the coast. The project will be consistent with these policies in that although public access to the beach will temporarily be disrupted during construction throughout the State Parks (New Brighton State Park and Seacliff State Park), the work will be prohibited between Memorial Day (end of May) and Labor Day (beginning of September) to avoid disruption during peak use. Furthermore, the applicant has negotiated agreements with State Parks regarding construction activities along Seacliff State Beach Road and New Brighton Beach. Any restrictions enumerated within these agreements will

Application #: 07-0730  
APN: 042-151-30, NON-APN-SPECIFIC  
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be included in the conditions of approval to ensure that disruptions to public beach access are limited in scope and duration. Impacts on views are temporary, limited to the presence of construction equipment and disturbance during work, as the improvements are largely underground. Lastly, recreation opportunities are preserved as vulnerable infrastructure is replaced away from the beach.

## **Development Permit Findings**

1. That the proposed location of the project and the conditions under which it would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity.

This finding can be made, in that construction will comply with prevailing building technology to insure the optimum in safety and the conservation of energy and resources. The intent of this project is to take the sanitation line off to beach to protect health and safety. The proposed Sewer Line Replacement will not deprive adjacent properties or the neighborhood of light, air, or open space, in that the improvements will be located underground. The project includes a Mitigated Negative Declaration that provides a thorough monitoring plan as well as conditions of approved intended to ensure that the measures are completed as required. As mitigated, the project will not result in significantly impacts to the health and safety of the public.

2. That the proposed location of the project and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the zone district in which the site is located.

This finding can be made, in that the proposed location of the Sewer Line Replacement project is an allowed use pursuant to General Plan Policy 2.21.4, which allows utilities within every zone district. Most of the improvements are located within County right-of-way though portions of the project right-of-way are located within the Public and Community Facility, Parks and Recreation and Residential-Low zone district.

The conditions under which the project will be constructed will be consistent with all pertinent County ordinances and the purposes of the applicable zone districts in that most of the project sewer replacement lines will be located underground, therefore site standards do not apply. Otherwise, pump station improvements located at the Rio Esplanade Pump Station will be completed entirely within the existing structure. The proposed pump station at the Pot Belly residential development will be located underground.

3. That the proposed use is consistent with all elements of the County General Plan and with any specific plan which has been adopted for the area.

This finding can be made, pursuant to General Plan Policy 2.21.4, in that "Public utility transmission and distribution facilities, including substations, shall be allowed in all land use districts, provided, however, that the routes or site plans of all proposed gas and electric transmission lines and substations shall be submitted to the Planning Department for review and recommendations prior to the acquisition of necessary land rights."

Furthermore, although public access to the beach will temporarily be disrupted, the intent of this project is to improve the overall public health and safety and protect the public access and recreation opportunities (General Plan Objective 7.1a) available to the public by rerouting the transmission line to an inland location instead of the beach alignment currently in place. This

work will prevent sewage spills on the beach similar to the one that occurred in the Pot Belly beach area and ultimately meet the objective to provide public access to the recreation opportunities along the coastline. And, although public access to the beach will temporarily be disrupted during construction throughout the State Parks (New Brighton State Park and Seacliff State Park), the work will be prohibited between Memorial Day (end of May) and Labor Day (beginning of September) to avoid disruption during peak use. The applicant has negotiated agreements with State Parks regarding construction activities along Seacliff State Beach Road and New Brighton Beach. Any restrictions enumerated within these agreements will be included in the conditions of approval to ensure that disruptions to public beach access are limited in scope and duration.

The project is located within the Seacliff Plan Area. All improvements are located underground and therefore there are no development effects from this project.

4. That the proposed use will not overload utilities and will not generate more than the acceptable level of traffic on the streets in the vicinity.

This finding can be made, in that the proposed Sewer Line Replacement will not expand the current sanitation service area as the project is only designed to address the existing needs of the Sanitation District, thus it will enhance the reliability and safety of the service. Piping and pump station improvements are sized for the 10-year design event, which translates to better overflow control during storm events.

The Mitigated Negative Declaration noted that traffic impacts from the proposed project are related to project construction only and are thus temporary in nature. However, the project includes a mitigation measure that requires a traffic control plan implemented during construction to be approved by the Public Works traffic engineer prior to construction. This will ensure that lane closures, driveway and roadway disruptions, and State Park access disruptions are limited and will not significantly impact existing roads and intersections in the surrounding area.

5. That the proposed project will complement and harmonize with the existing and proposed land uses in the vicinity and will be compatible with the physical design aspects, land use intensities, and dwelling unit densities of the neighborhood.

This finding can be made, in that the sanitation line will be located underground. The pump station improvements within the Rio Esplanade pump station will be located entirely within the existing structure and therefore will not present design issues related to the surrounding residential neighborhood. The new pump station located on Pot Belly Beach will also be located underground. The pump station on New Brighton Road will be located alongside the road where tree removals can be limited. The pump station will have a green vinyl clad fence enclosure to blend the facility with the surrounding eucalyptus trees. Also, the required pump station generator is designed to be sound proof so that noise does not emanate from the site and disturb neighbors.

Project related impacts associated with the overall project (construction and tree removal) are addressed in the mitigated negative declaration, Exhibit D.



6. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.

The proposed development project is consistent with the Design Standards and Guidelines in that the project will only temporarily degrade the coastal scenic resources, the Highway Scenic Corridor, and/or the visual character or quality of the public right-of-ways as a whole. The project includes mitigation measures addressed under the aesthetics section of the Mitigated Negative Declaration, which include tree preservation measures meant to protect existing trees, to minimize the number of trees removed, and to provide replacement trees for trees removed. Once project construction trenching is complete the roadways will be restored to pre-construction condition and will not result in long-term visual impacts. Project construction does not require additional lighting and will be completed during the day light hours.

One pump station is proposed above grade alongside New Brighton Road. This pump station is located within a fenced enclosure with green vinyl slats. The proposed color will help the structure blend into the surrounding eucalyptus trees. The above grade pump station has been reviewed by the Urban Designer and found to be consistent with the design guidelines as proposed.

## Conditions of Approval

Exhibit A: Project Plans, Prepared by Harris and Associates, dated October 16, 2008

- I. This permit authorizes the approximately 4.2 miles of sewer lines along an inland alignment in order to replace 3,000 feet of sewer line on the beach between the end of Las Olas Drive and New Brighton State Beach. The route of the replacement sewer pipe is from the pump station in the Rio Esplanade (APN 042-151-30) along portions of Moosehead Drive, Seacliff State Beach access road, State Park Drive, McGregor Drive, and New Brighton Road, and terminates at Park Avenue and Washburn Avenue in Capitola. Work includes: 1) improvements to the existing pump station equipment in the Rio Esplanade, 2) construction of four new pump stations, 3) demolition of the New Brighton Beach pump station and associated bathroom, 4) removal of approximately 6 trees where necessary to construct the project, and 5) 19,000 cubic yards of earthwork. The project requires a Coastal Development Permit and a Significant Tree Removal Permit for the portion of the project within the unincorporated area of Santa Cruz County, and Environmental Review for the entire project including the portions located within the City of Capitola. Prior to exercising any rights granted by this permit including, without limitation, any construction or site disturbance, the applicant/owner shall:
  - A. Sign, date, and return to the Planning Department one copy of the approval to indicate acceptance and agreement with the conditions thereof.
  - B. Obtain an Encroachment Permit from the Department of Public Works for all off-site work performed in the County road right-of-way.
  - C. Obtain an Encroachment Permit, and/or an easement, from the Union Pacific Railroad for the jack and bore and the sewer line improvements within the railroad right-of-way. The project contractor shall comply with all requirements described in the encroachment permit.
  - D. Obtain an easement, if not already obtained, from the Pot Belly Homeowners Association for the Tannery Gulch Pump Station improvements along New Brighton Road and the Pot Belly Beach Pump Station on Pot Belly Beach Road.
  - E. Obtain an agreement, including an encroachment permit, from the California State Parks for work within the State Parks Property and comply with all provisions of same.
  - F. Obtain a Nationwide Permit No. 12 (Utility Line Activities) from the U.S. Army Corps of Engineers for impacts to waters of the United States.
  - G. Obtain a Section 401 Water Quality Certification from the Regional Water Quality Control Board for activities proposed within Regional Water Quality Control Board jurisdiction.
  - H. Obtain a Section 1600 Streambed Alteration Agreement from the Department of

Fish and Game (DFG) for work below the top of bank within DFG jurisdiction and horizontal directional drilling activities underneath Aptos Creek

- I. Obtain a Permit from the Monterey Bay Air Quality Control Board for activities proposed within the Monterey Bay Air Quality Control Board Jurisdiction.
- J. Obtain a Coastal Permit from the Coastal Commission for any portion of the project within the Coastal Commission's Original Jurisdiction area as determined by the Coastal Commission.
- K. Obtain a Coastal Permit and any other required approvals from the City of Capitola for any portion of the project within the Capitola City limit.
- L. Submit final plans for review and approval by the Planning Department. The final plans shall be in substantial compliance with the plans marked Exhibit "A" on file with the Planning Department. Any changes from the approved Exhibit "A" for this development permit on the plans must be clearly called out and labeled by standard architectural methods to indicate such changes. The final plans shall include the following additional information:
  - 1. The final construction plans shall incorporate all requirements of the attached Mitigation Measures (Condition V- Mitigation Measures) into the final construction plans and specifications. Project specifications shall include an itemized list identifying where the mitigation measures are located within the construction plan set to expedite plan review. Plans and specifications shall be reviewed and approved by Santa Cruz County Planning Department Environmental Planning Staff.
  - 2. The final construction plans shall include an erosion control plan and a Stormwater Pollution Prevention Plan as required by the mitigation measures (Condition V- Mitigation Measures) to be reviewed and approved by the Regional Water Quality Control Board and Environmental Planning to ensure compliance with mitigation measure Hydro-1.
- M. Meet all requirements of and pay Zone 6 drainage fees to the County Department of Public Works, Drainage. Drainage fees will be assessed on any net increase in impervious area.
- N. Submit a Traffic Control Plan to Public Works Road Engineering prior to construction. This plan shall be reviewed and approved by Public Works Traffic engineer.
- O. The applicant shall submit a contract and scope of work by a project construction manager or a project site inspector for all site inspections required by the mitigation measures (Condition V-Mitigation Measures) to ensure that the mitigation measures have been properly implemented. Public Works shall

identify the site inspector and the site inspector shall be involved in all aspects of the project from the pre-construction meeting through construction.

- P. Submit a contract and scope of work by a qualified Ornithologist to perform required mitigation measures (Condition V-Mitigation Measures) identified under Mitigation Measure Bio-3.3. Contract and Scope of Work shall include clearance of scope of work by the Department of Fish and Game.
- Q. Submit a contract and scope of work by a qualified arborist to perform required mitigation measures (Condition V-Mitigation Measures) identified under Mitigation Measures Bio-9.2, Bio-9.4, Bio-9.7, Bio-9.9, Bio-9.10, Bio-9.11, Bio-9.12, Bio-9.16, Bio-9.17, Bio-9.18, Bio-9.20, Bio-9.21, Bio-9.23, and Bio-9.24.
- R. Submit a contract and scope of work by a qualified archaeologist to perform required mitigation measures (Condition V-Mitigation Measures) identified under Mitigation Measures Cul-1.1, Cul-1.2, and Cul-1.3.
- S. Submit a contract and scope of work by a qualified biologist to perform required mitigation measures (Condition V-Mitigation Measures) identified under Mitigation Measures Bio- 1.1, Bio- 2.2, Bio-2.4, Bio-3.1, Bio-3.5, Bio-4.2, Bio-4-3, Bio-4.4, Bio-6.1, Bio-6.2, Bio-6.3, Bio-6.4, Bio-7.1, Bio-7.2, Bio-7.3, Bio-8.1, and Bio-9.22.
  - 1. The scope of work shall include notification of the Department of Fish and Game (DFG) and United States Fish and Wildlife Services (USFWS) by the contractor for mitigation measure Bio-4.4 (if Snowy Plovers are detected).
  - 2. The scope of work shall also include coordination with DFG and USFWS for establishment of disturbance free buffer zones for mitigation measure Bio-4.4 (Snowy Plover).
  - 3. The scope of work shall also include coordination with DFG for establishment of disturbance free buffer zone for mitigation measure Bio-Bio-6.2, Bio-6.3, and Bio-6.4 (Bat Species) and mitigation measure Bio-7.2 (American Badger)
  - 4. The scope of work shall also include coordination with DFG, NMFS (National Marine Fisheries Service), RWQCB (Regional Water Quality Control Board), USACE (United States Army Corps of Engineers), and USFWS for mitigation measure Bio-8.1 (if frac-out occurs).
- T. Obtain a Significant Tree Removal Permit for any "Significant Tree" (as defined by County Code) not specifically identified for removal in the Mitigated Negative Declaration, as consistent with the Mitigation Measure Bio-9.5, and require replacement as a permit condition.

- U. Obtain an easement, if not already obtained, from the Pot Belly Homeowners Association for the Tannery Gulch Pump Station improvements and the Pot Belly Beach Pump Station, as well as easements for any portions of the work outside the public right-of-way.
- II. All construction shall be performed according to the final approved plans. Prior to completion of the project, the applicant/owner must meet the following conditions:
  - A. All site improvements shown on the final approved plans shall be installed.
  - B. All required site inspections required by Mitigation Measures (Condition V-Mitigation Measures) shall be completed by the Approved Project Construction Manager or Site Inspector for the project to ensure that all mitigation measures are properly implemented.
  - C. Pursuant to Sections 16.40.040 and 16.42.100 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.100, shall be observed.
- III. Operational Conditions
  - A. In the event that future County inspections of the subject property disclose noncompliance with any Conditions of this approval or any violation of the County Code, the owner shall pay to the County the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement actions, up to and including permit revocation.
- IV. As a condition of this development approval, the holder of this development approval ("Development Approval Holder"), is required to defend, indemnify, and hold harmless the COUNTY, its officers, employees, and agents, from and against any claim (including attorneys' fees), against the COUNTY, its officers, employees, and agents to attack, set aside, void, or annul this development approval of the COUNTY or any subsequent amendment of this development approval which is requested by the Development Approval Holder.
  - A. COUNTY shall promptly notify the Development Approval Holder of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. COUNTY shall cooperate fully in such defense. If COUNTY fails to notify the Development Approval Holder within sixty (60) days of any such claim, action, or proceeding, or fails to cooperate fully in the defense thereof, the Development Approval Holder shall not thereafter be responsible to defend, indemnify, or hold harmless the COUNTY if such failure to notify or

cooperate was significantly prejudicial to the Development Approval Holder.

B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:

1. COUNTY bears its own attorney's fees and costs; and
2. COUNTY defends the action in good faith.

C. Settlement. The Development Approval Holder shall not be required to pay or perform any settlement unless such Development Approval Holder has approved the settlement. When representing the County, the Development Approval Holder shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of any of the terms or conditions of the development approval without the prior written consent of the County.

D. Successors Bound. "Development Approval Holder" shall include the applicant and the successor(s) in interest, transferee(s), and assign(s) of the applicant.

V. Mitigation Monitoring:

The mitigation measures listed under Exhibit D (CEQA Determination/Mitigated Negative Declaration, Mitigation Monitoring Program) have been incorporated in the conditions of approval for this project in order to mitigate or avoid significant effects on the environment. As required by Section 21081.6 of the California Public Resources Code, a monitoring and reporting program (Exhibit D) for the above mitigation is hereby adopted as a condition of approval for this project. This program is specifically described following each mitigation measure listed. The purpose of this monitoring is to ensure compliance with the environmental mitigations during project implementation and operation. Failure to comply with the conditions of approval, including the terms of the adopted monitoring program, may result in permit revocation pursuant to section 18.10.462 of the Santa Cruz County Code.

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Minor variations to this permit which do not affect the overall concept or density may be approved by the Planning Director at the request of the applicant or staff in accordance with Chapter 18.10 of the County Code.

**Please note: This permit expires three years from the effective date on the expiration date listed below unless you obtain the required permits and commence construction.**

Application #: 07-0730  
APN: 042-151-30, NON-APN-SPECIFIC  
Owner: Santa Cruz County

Approval Date: \_\_\_\_\_

Effective Date: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

\_\_\_\_\_  
Don Bussey  
Deputy Zoning Administrator

\_\_\_\_\_  
Sheila McDaniel  
Project Planner

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Appeals: Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz County Code.



# COUNTY OF SANTA CRUZ

## PLANNING DEPARTMENT

701 OCEAN STREET, 4<sup>TH</sup> FLOOR, SANTA CRUZ, CA 95060  
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123

TOM BURNS, PLANNING DIRECTOR

Dear Project Applicant:

The enclosed document is your copy of the Negative Declaration issued by the Environmental Coordinator for your project. Any conditions attached to the Negative Declaration will be incorporated into any Development Permit approved for your project. The primary purpose of this letter, however, is to notify you about a state law, Section 711.4(c)(3) of the Fish and Game Code, which requires the County Clerk of the Board of Supervisors to collect a Negative Declaration filing fee for the California Department of Fish and Game. The fee, which supports the work of that state agency, is forwarded to the California Department of Fish and Game by the Clerk.

The law requires project applicants to pay a fee of \$ 1,993.00 at the time the Environmental Notice of Determination is filed with the Clerk of the Board of Supervisors (directly after your project is approved). If the Department of Fish and Game has determined that your project will have "no effect" on wildlife resources and you have received a "letter of no effect" from the Department of Fish and Game, the Clerk will accept that letter in lieu of the \$ 1,993.00 fee. However, in all cases a \$ 50.00 County document-filing fee is still required.

To apply to the Department of Fish and Game for a "letter of no effect" you may contact them directly at the Yountville office at (707) 944-5500. According to the State law, permits and projects are not vested, final or operative until the appropriate fee is paid. In addition, the Clerk of the Board is required to report the posting of ALL Environmental Notices of Determination to the California Department of Fish & Game and to notify them that the required fee has been paid.

**It is the applicant's responsibility to pay the fee to the Clerk of the Board, who then forwards the fee to the State, or to present your "letter of no effect" to the Clerk. Your filing fee should be paid AFTER PROJECT APPROVAL at the Clerk of the Board of Supervisors in Room 500 of the County Governmental Center, 701 Ocean Street, Santa Cruz, CA 95060. Checks should be made payable to the County of Santa Cruz. PAYMENT PRIOR TO PROJECT APPROVAL CANNOT BE ACCEPTED BY THE CLERK OF THE BOARD. IN ADDITION, IF YOU ARE PAYING ONLY THE LOCAL FILING FEE OF \$ 50.00, PAYMENT CAN ONLY BE ACCEPTED WHEN ACCOMPANIED BY A "LETTER OF NO EFFECT" FROM THE DEPARTMENT OF FISH AND GAME.**

If you have any questions about the payment of this required fee, please contact the Clerk of the Board at (831) 454-2323.

Sincerely yours,

CLAUDIA SLATER

Environmental Coordinator





# COUNTY OF SANTA CRUZ

## PLANNING DEPARTMENT

701 OCEAN STREET, 4<sup>TH</sup> FLOOR, SANTA CRUZ, CA 95060  
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123

TOM BURNS, PLANNING DIRECTOR

### NEGATIVE DECLARATION AND NOTICE OF DETERMINATION

Application Number: 07-0730

Santa Cruz County Sanitation District

Proposal to construct approximately 4.2 miles of sewer lines along an inland alignment in order to replace 3,000 feet of sewer line on the beach between the end of Las Olas Drive and New Brighton State Beach. The route of the replacement sewer pipe is from the pump station in the Rio Esplanade (APN 042-151-30) along portions of Moosehead Drive, Seacliff State Beach access road, State Park Drive, McGregor Drive, and New Brighton Road, and terminates at Park Avenue and Washburn Avenue in Capitola. Work includes: 1) improvements to the existing pump station in the Rio Esplanade, 2) construction of the four new pump stations, 3) demolition of the New Brighton Beach pump station and associated bathroom, and 4) tree removals where necessary to construct the project. The project requires a Coastal Development Permit and a Significant Tree Removal permit for the portion of the project within the unincorporated area of Santa Cruz County and Environmental Review for the entire project including the portions located within the City of Capitola.

APN: 042-151-30 & County Right-Of-Way

Sheila Mc Daniel, Staff Planner

Zone District: Public & Community Facilities

ACTION: Negative Declaration with Mitigations

REVIEW PERIOD ENDS: March 5, 2009

This project will be considered at a public hearing by the Zoning Administrator. The time, date and location have not been set. When scheduling does occur, these items will be included in all public hearing notices for the project.

#### Findings:


This project, if conditioned to comply with required mitigation measures or conditions shown below, will not have significant effect on the environment. The expected environmental impacts of the project are documented in the Initial Study on this project, attached to the original of this notice on file with the Planning Department, County of Santa Cruz, 701 Ocean Street, Santa Cruz, California.

#### Required Mitigation Measures or Conditions:

☐ None  
☒ Are Attached

Review Period Ends: March 5, 2009

Date Approved By Environmental Coordinator: March 26, 2009

  
CLAUDIA SLATER  
Environmental Coordinator  
(831) 454-5175

If this project is approved, complete and file this notice with the Clerk of the Board:

#### NOTICE OF DETERMINATION

The Final Approval of This Project was Granted by \_\_\_\_\_

on \_\_\_\_\_ No EIR was prepared under CEQA.  
(Date)

THE PROJECT WAS DETERMINED TO NOT HAVE SIGNIFICANT EFFECT ON THE ENVIRONMENT.

Date completed notice filed with Clerk of the Board: \_\_\_\_\_



# COUNTY OF SANTA CRUZ

## PLANNING DEPARTMENT

701 OCEAN STREET, 4<sup>TH</sup> FLOOR, SANTA CRUZ, CA 95060  
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123  
TOM BURNS, PLANNING DIRECTOR

## NOTICE OF ENVIRONMENTAL REVIEW PERIOD

### SANTA CRUZ COUNTY

APPLICANT: Santa Cruz County Sanitation District

APPLICATION NO.: 07-0730

APN: 042-151-30 and Count Right-of-way

The Environmental Coordinator has reviewed the Initial Study for your application and made the following preliminary determination:

XX Negative Declaration

(Your project will not have a significant impact on the environment.)

XX

Mitigations will be attached to the Negative Declaration.  
(included in the bound copy of Initial Study)

\_\_\_\_\_ No mitigations will be attached.

\_\_\_\_\_ Environmental Impact Report

(Your project may have a significant effect on the environment. An EIR must be prepared to address the potential impacts.)

As part of the environmental review process required by the California Environmental Quality Act (CEQA), this is your opportunity to respond to the preliminary determination before it is finalized. Please contact Matt Johnston, Environmental Coordinator at (831) 454-3201, if you wish to comment on the preliminary determination. Written comments will be received until 5:00 p.m. on the last day of the review period.

Review Period Ends: **March 4, 2009**

**Sheila McDaniel**  
Staff Planner

Phone: (831) 454-3439

Date: January 27, 2009

**Errata to the Aptos Transmission Main Relocation Project  
Initial Study/Mitigated Negative Declaration  
Santa Cruz, County, California**

**March 25, 2009**

This Errata provides changes to the Initial Study/Mitigated Negative Declaration (IS/MND) for the Aptos Transmission Main Relocation Project in revision-mode text (i.e., deletions are shown with strikethrough and additions are shown with double underline). These notations are meant to provide clarification, corrections, or minor revisions as needed as a result of public comments since the release of the IS/MND.

The following changes are incorporated into the IS/MND as presented below.

**Mitigation Measure Bio-1.1**

- If work occurs within 100 feet of the field south of McGregor Drive and East of New Brighton Road ~~during the active period for adult Ohlone tiger beetle (January – April)~~, then the project site shall be surveyed for the presence of Ohlone tiger beetle by a qualified biologist. Surveys shall be conducted either for adult Ohlone tiger beetles during their active period (January – April), or for larval burrows during the remainder of the year (May – December).

**Mitigation Measure Bio-1.2**

- If adult Ohlone tiger beetles or their larval burrows are found to be present, any work within 100 feet of their habitat shall require full-time monitoring by a qualified biologist and shall be conducted between ~~May and December~~ January and April, ~~outside of the period when adults are active above ground and could stray into the work area and can be readily observed above ground.~~

**Mitigation Measure Bio-5.1**

- Timing of ~~construction activities near~~ horizontal directional drilling under Aptos Creek shall be ~~determined in consultation with NMFS and USFWS~~ limited from Labor Day to the first day of significant rainfall after October 15<sup>th</sup>.

**Mitigation Measure Bio-5.7**

- Staging and storage areas for equipment, materials, fuels, lubricants, and solvents shall be located at least 50 feet from the creek. No debris (such as trash and spoils) shall be deposited within 100 feet of the creek. Any equipment or vehicles driven and/or operated adjacent to the creek shall be checked daily and maintained as needed to prevent leaks of materials that, if introduced to water, could deleterious to aquatic life. Vehicles will be moved at least 50 feet away from the creek prior to refueling and lubrication.

**Mitigation Measure Hydro-1:**

- ~~An Erosion Control Plan and Stormwater Pollution Prevention Plan (SWPPP) shall be prepared as part of the Section 401 Certification process which will meet water quality standards for the County of Santa Cruz, City of Capitola, California State Parks, and the RWQCB. Specific measures in the SWPPP will include, but are not limited to, the following:~~ To ensure that water quality standards and waste discharge requirements are not violated, the District will incorporate the following measures:
  - ▶ Prevent spills and leaks from construction vehicles and equipment.
  - ▶ Clean up spills immediately when they happen using dry cleanup methods whenever possible and, if water must be used, use just enough to keep the dust down.
  - ▶ Store materials under cover.
  - ▶ Cover and maintain dumpsters.
  - ▶ Clean up paints and solvents, adhesives, and cleaning solutions properly.
  - ▶ Keep fresh concrete and cement mortars out of gutters, storm drains, and streams.
  - ▶ Service and maintain portable toilets.

- ▶ Dispose of cleared vegetation and soils properly.
- Make sure all demolition waste is properly disposed.

**Figure 12**

- Figure 12: Aptos Transmission Main Relocation Project Land Within 100-Year Flood Area

**Appendix G:**

- Appendix G: Frac-out Contingency Plan for Horizontal Directional Drilling for the Aptos Transmission Line Project

# MITIGATION MONITORING PROGRAM FOR APTOS TRANSMISSION MAIN RELOCATION PROJECT

## Abbreviations:

California Department of Fish and Game (DFG)  
California Environmental Quality Act (CEQA)  
Regional Water Quality Control Board (RWQCB)  
Santa Cruz County Sanitation District (District)  
United States Army Corps of Engineers (USACE)  
United States Fish and Wildlife Service (USFWS)

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
<b>Aesthetics</b>  1. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.  Two trees may be removed within the visibility of California State Route 1, which is considered eligible to be designated as a state scenic highway.	Refer to Tree Preservation Measures in Biological Resources Section Mitigation Measures Bio-9.1 through Bio-9.24.	District	Refer to Timing of Compliance for Mitigation Measures Bio-9.1 through Bio-9.24.	Refer to Method of Compliance for Mitigation Measures Bio-9.1 through Bio-9.24.

EXHIBIT

D4

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
<p><b>Aesthetics (continued)</b></p> <p><b>2. Substantially degrade the existing visual character or quality of the site and its surroundings.</b></p> <p>Any impacts to visual character or quality resulting from construction equipment or trenching activities will be temporary and will not substantially degrade the visual character or quality of the site.</p> <p>Removal of 4 trees for Tannery Gulch Pump Station and 2 trees along McGregor Drive will not substantially degrade the existing visual character or quality of the site, which is primarily residential, with implementation of the Tree reservation Guidelines.</p>	<p>Refer to Tree Preservation Measures in Biological Resources Section Mitigation Measures Bio-9.1 through Bio-9.24.</p>	<p>District</p>	<p>Refer to Timing of Compliance for Mitigation Measures Bio-9.1 through Bio-9.24.</p>	<p>Refer to Method of Compliance for Mitigation Measures Bio-9.1 through Bio-9.24.</p>

EXHIBIT

D4

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
<b>Air Quality</b>				
<p>1. Violate an air quality standard or contribute substantially to an existing or projected air quality violation.</p> <p>The proposed project would generate short-term construction emissions, including ozone precursors, i.e., volatile organic compounds (VOC) and nitrogen oxides (NOx), and particulate matter from fugitive dust and vehicle emissions.</p>	<p><b>Mitigation Measure Air-1:</b></p> <ul style="list-style-type: none"> <li>▶ Water all active construction sites at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.</li> <li>▶ Prohibit all grading activities during periods of high wind (over 15 mph).</li> <li>▶ Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).</li> <li>▶ Apply non-toxic binders (i.e. latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseed area.</li> <li>▶ Haul trucks shall maintain at least 2 feet of freeboard.</li> <li>▶ Cover all trucks hauling dirt, sand, or loose materials.</li> <li>▶ Plant vegetative ground cover in disturbed areas as soon as possible.</li> <li>▶ Cover inactive storage piles.</li> <li>▶ Install wheel washers at the entrance to construction sites for all existing trucks.</li> <li>▶ Pace all roads at construction sites.</li> </ul>	District	Incorporate into project plans and specifications. Implement during construction.	Submittal and subsequent review and approval of project plans; site inspection.
<p>2. Project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).</p> <p>The project would not result in a cumulatively considerable net increase in any air pollutant. The project construction would not contribute substantially to</p>	<p>Refer to Mitigation Measure Air-1.</p>	District	Refer to Timing of Compliance for Mitigation Measure Air-1.	Refer to Method of Compliance for Mitigation Measure Air-1.

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
cumulative ozone or PM <sub>10</sub> emissions. Nevertheless, because the NCCAB is in nonattainment for state standards for particulate matter, the District will implement Mitigation Air-1.				
<p><b>3. Expose sensitive receptors to substantial pollutant concentrations.</b></p> <p>The sensitive receptors in the area would not be exposed to substantial concentrations of criteria air pollutant emissions other than fugitive dust, which will be reduced by implementation of Mitigation Measures Air-1 and Air-2.</p> <p>Construction equipment used for the proposed project would result in the generation of particulate exhaust emissions from diesel-fueled engines (diesel PM) from the use of off-road diesel equipment required for grading and soil excavation and other construction activities.</p>	<p><b>Mitigation Measure Air-2:</b> The following measures shall be implemented where feasible to reduce emissions from construction equipment exhaust:</p> <ul style="list-style-type: none"> <li>▶ limit use of equipment;</li> <li>▶ replace diesel-powered equipment with gasoline-powered;</li> <li>▶ use PurINOx emulsified diesel fuel in existing engines;</li> <li>▶ modify engine with ARB verified retrofit;</li> <li>▶ repower with current standard diesel technology;</li> <li>▶ repower with CNG/LNG technology;</li> <li>▶ retrofit heavy duty diesel engines as specified in Table 8-4 of the Monterey Air District CEQA Air Quality Guidelines; and</li> <li>▶ utilize alternative fuel technologies where feasible as specified in Table 8-7 of the Monterey Air District CEQA Air Quality Guidelines.</li> </ul>	District	Incorporate into project plans and specifications. Implement during construction.	Submittal and subsequent review and approval of project plans; site inspection.
<p><b>4. Create objectionable odor affecting a substantial number of people.</b></p> <p>The Potbelly Beach Pump Station is located very close to residences</p>	<p><b>Mitigation Measure Air-3.1:</b> Controls shall be set to minimize the amount of wastewater in the wet well and to initiate frequent pumping cycles. The grinder pumps selected for this pump station will easily accommodate this measure. The wet well shall be fitted with a vent pipe.</p>	District	Incorporate into project plans and specifications. Implement during construction.	Submittal and subsequent review and approval of project plans; site inspection.

**EXHIBIT D**



Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
(less than 50 feet), and if the wastewater remains in the wet well for a long period it could become septic. Although this will not impact a substantial number of people, it could impact the few houses near this facility.	<b>Mitigation Measure Air-3.2:</b> The District shall monitor the odor from the Potbelly Beach Pump Station. If odors are determined to be impacting nearby residences, the District shall install a fan attached to the vent pipe or install an odor control device such as a drum of activated carbon, or a soil bed scrubber.	District	Incorporate into development of plans and specifications for the project; during construction and ongoing maintenance activities.	Submittal and subsequent review and approval of project plans; site inspection. Monitoring conducted by District.
<b>Biological Resources</b>				
<b>I. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.</b>				
<b>1. Ohlone Tiger Beetle.</b> Potentially suitable habitat for Ohlone tiger beetle is present in the grassy field south of McGregor Drive and east of New Brighton Road, in the north central area of the Aptos Transmission Main alignment. Although no work will be conducted within the field itself, adults have potential to move into the work area during construction to forage. If adults were to enter the work area during the active period (January – April), they could be harmed or killed by trenching activity, the movement of vehicles, and the movement of people within the work area.	<b>Mitigation Measure Bio-1.1:</b> If work occurs within 100 feet of the field south of McGregor Drive and East of New Brighton Road, then the project site shall be surveyed for the presence of Ohlone tiger beetle by a qualified biologist. Surveys shall be conducted either for adult Ohlone tiger beetles during their active period (January – April), or for larval burrows during the remainder of the year (May – December).	District	Survey for adults between January 1 and April 30 or larval burrows between May 1 and December 31 prior to commencement of construction.	Contract with qualified biologist(s) to perform species surveys.
<b>2. Monarch Butterfly.</b> The proposed transmission main alignment along New Brighton Road and associated Tannery Gulch and Potbelly Beach Pump Stations are located in an area with a known monarch butterfly	<b>Mitigation Measure Bio-1.2:</b> If adult Ohlone tiger beetles or their larval burrows are found to be present, any work within 100 feet of their habitat shall require full-time monitoring by a qualified biologist and shall be conducted between January and April when adults are active and can be readily observed above ground.	District	Construction allowed between May 1 and December 31. Incorporate into project plans and specifications. Implement during construction.	Submittal and subsequent review and approval of project plans; site inspection.
	<b>Mitigation Measure Bio-2.1:</b> To the extent feasible, tree removal and construction activities shall avoid the roosting period/overwintering season for the monarch butterfly (October – March).	District	Trees should not be removed between October and March. Incorporate into project plans and specifications. Implement during construction.	Submittal and subsequent review and approval of project plans; site inspection.

**EXHIBIT**

**D1**

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
overwintering site. Construction activities in the vicinity of roost sites may disturb roosting butterflies. Although monarch overwintering sites do not receive protection at the state or federal level, they are protected under Santa Cruz County Code § 16.32 and City of Capitola Municipal Code § 17.95. Construction of these project features requires the removal of two eucalyptus trees. Removal of any roost trees would be a direct impact to monarch butterfly habitat. Removal of trees in the vicinity may affect wind and canopy dynamics resulting in a decrease in quality of nearby roost sites.	<p><b>Mitigation Measure Bio-2.2:</b> If tree removal or construction activities occur between October and March, preconstruction surveys for monarch butterfly shall be conducted according to appropriate protocols for the species biology. Preconstruction surveys for monarch butterfly may be conducted concurrently with nesting birds between December and March.</p> <p><b>Mitigation Measure Bio-2.3:</b> If roosting monarch butterflies are found, all trees with roosting butterflies shall be flagged and a non-disturbance buffer zone of a minimum of 50 feet as determined in coordination with the District and DFG shall be established around the roosting trees. All construction activities and work related to the project shall be conducted in the mid-day between 10 a.m. and 3 p.m. when monarch butterflies are away from their roost.</p> <p><b>Mitigation Measure Bio-2.4:</b> If more than two eucalyptus trees must be removed to accommodate the project, then a survey shall be conducted to further evaluate potential impacts to roosting habitat and a habitat compensation plan developed if necessary.</p>	District	Preconstruction surveys conducted between October and March.	Contract with qualified biologist(s) to perform species surveys.
		District; DFG	Incorporate into project plans and specifications. Implement prior to and during construction-related activities.	Submittal and subsequent review and approval of project plans; site inspection. Establish a minimum non-disturbance buffer of 50 feet.
		District	Incorporate into project plans and specifications. Implement prior to and during construction-related activities. Survey prior to construction.	Submittal and subsequent review and approval of project plans; site inspection. Contract with qualified biologist(s) to perform species surveys.
<p><b>3. Protected Birds (except Western Snowy Plover).</b></p> <p>Any removal of trees or shrubs, or construction activities in the vicinity of active protected bird nests, could result in nest abandonment, nest failure, or premature fledging. Destruction or disturbance of active nests would be in violation of the MBTA and</p>	<p><b>Mitigation Measure Bio-3.1:</b> If removal of trees or shrubs occurs, or construction begins between December 15 and August 31, which includes the nesting season for passerine or non-passerine land birds (February 1 and August 31) and the nesting season for raptors (December 15 and August 31), then a nesting bird survey shall be performed by a qualified biologist within 15 days prior to the removal or disturbance of potential nesting trees or shrubs or start of other construction activities.</p>	District	Surveys conducted between December 15 and August 31 within 15 days prior to removal or disturbance.	Contract with a qualified biologist(s) to perform species surveys.

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
<p>DFG Code.</p> <p>Protected Birds (except Western Snowy Plover) (continued)</p>	<p><b>Mitigation Measure Bio-3.2:</b> If nesting birds are detected, all trees with active nests shall be flagged and a non-disturbance buffer zone established around the nesting tree in coordination with DFG. Buffer zones typically range between 50 feet to 90 feet for passerines and non-passerine land birds, and between 200 feet to 500 feet for raptors, as determined by DFG depending on the species involved, site conditions, and type of work proposed.</p> <p><b>Mitigation Measure Bio-3.3:</b> Active nests shall be monitored by a qualified ornithologist to determine when the young have fledged and are feeding on their own. DFG shall be consulted for clearance before construction activities resume.</p> <p><b>Mitigation Measure Bio-3.4:</b> If removal of trees or shrubs occurs, or construction begins between December 15 and August 31, then surveys shall also be conducted for ground and cliff nesting birds. Surveys shall be conducted by walking narrow transects through the grassland adjacent to the project area within 30 days prior to the commencement of project related activities by a qualified ornithologist. Surveys for cliff nesting birds, including bank swallow and black swift should be conducted visually, concurrent with ground nesting surveys.</p> <p><b>Mitigation Measure Bio-3.5:</b> A biological monitor shall be present at the commencement of construction-related activities to ensure that nesting birds have not inhabited the project area during the window following pre-construction surveys and commencement of construction. The biological monitor also shall review all staging areas to ensure nesting birds are not present.</p>	<p>District, DFG</p> <p>District, DFG</p> <p>District</p> <p>District</p>	<p>Incorporate into project plans and specifications. Implement prior to and during construction-related activities.</p> <p>Incorporate into project plans and specifications. Implement prior to construction.</p> <p>Concurrent with Mitigation Measure Bio-3.1. Within 30 days prior to commencement of construction-related activities.</p> <p>The start of construction related activities. Incorporate into project plans and specifications for the project.</p>	<p>Submittal and subsequent review and approval of project plans; site inspection. Create a non-disturbance buffer zone around the nesting tree as determined by DFG.</p> <p>Contract with qualified ornithologist to perform species surveys. DFG shall be consulted for clearance.</p> <p>Refer to Method of Compliance for Mitigation Measure Bio-3.1.</p> <p>Submittal and subsequent review and approval of project plans; site inspection. Contract with qualified biologist(s) to perform monitoring.</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
<p><b>4. Western Snowy Plover</b></p> <p>Western snowy plover have a very low potential to nest on site. The beach corridor adjacent to the project site supports marginally suitable nesting habitat for western snowy plover. Any construction-related activities that take place along or adjacent to the beach corridor of the project area during the nesting season could disturb nest sites, which would be a potentially significant impact.</p>	<p><b>Mitigation Measure Bio-4.1:</b> Any work along or adjacent to the beach corridor shall be avoided during the plover nesting season (mid-March through mid-September) to the maximum extent practicable.</p> <p><b>Mitigation Measure Bio-4.2:</b> If construction-related activities must occur during the nesting season (mid-March through mid-September), pre-construction surveys for nesting snowy plover shall be conducted within 15 days prior to any construction-related activities, in all appropriate habitat areas within 500 feet of the disturbance area.</p> <p><b>Mitigation Measure Bio-4.3:</b> If nesting plovers are not detected, a biological monitor shall be present at the commencement of and during construction-related activities along and adjacent to the beach corridor to ensure that no plovers have begun nesting during the window between pre-construction surveys and construction.</p> <p><b>Mitigation Measure Bio-4.4:</b> If nesting plovers are detected, disturbance-free buffer zones shall be established ranging from a minimum of 300 feet to 500 feet, as determined by a qualified biologist in coordination with USFWS and DFG. The disturbance-free buffer zone shall be observed during the nesting season (mid-March through mid-September). In addition, a biological monitor shall be present during construction-related activities to ensure disturbance-free buffer zones are observed.</p>	<p>District</p> <p>District</p> <p>District</p> <p>District, USFWS, DFG</p>	<p>Incorporate into development of plans and specifications. Implement during construction.</p> <p>Surveys conducted within 15 days prior to construction related activities.</p> <p>Incorporate into project plans and specifications. Implement prior to and during construction-related activities.</p> <p>Incorporate into project plans and specifications. Implement prior to and during construction-related activities.</p>	<p>Submittal and subsequent review and approval of project plans; site inspection.</p> <p>Contract with a qualified biologist(s) to perform species surveys.</p> <p>Submittal and subsequent review and approval of project plans; site inspection. Contract with a qualified biologist(s) to perform monitoring.</p> <p>Submittal and subsequent review and approval of project plans; site inspection. Create a 300 to 500 foot non-disturbance buffer. Contract with a qualified biologist(s) to perform monitoring. DFG and/or USFWS shall be contacted immediately if species are detected.</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
<p><b>5. Tidewater, Steelhead, and Western Pond Turtle</b></p> <p>Tidewater goby and Central California Coast ESU steelhead are known to occur within Aptos Creek, which lies partially in the project footprint. Western pond turtle also have a low potential to occur in this part of the project area. The preferred creek crossing method, HDD, will cross underneath Aptos Creek, and will avoid any direct impact to Aptos Creek altogether. However, noise and runoff from displaced slurry, potentially generated by directional drilling, may indirectly impact aquatic species.</p>	<p><b>Mitigation Measure Bio-5.1:</b> Timing of horizontal directional drilling under Aptos Creek shall be limited from Labor Day to the first day of significant rainfall after October 15<sup>th</sup>.</p>	<p>District, NMFS, USFWS</p>	<p>Prior to the issuance of environmental regulatory permits. Incorporate into project plans and specifications.</p>	<p>Submittal and subsequent review and approval of project plans.</p>
	<p><b>Mitigation Measure Bio-5.2:</b> In order to minimize potential impacts to tidewater goby, steelhead, and western pond turtle potentially present in Aptos Creek, in the event of a frac-out during directional drilling, a frac-out contingency plan shall be implemented.</p>	<p>District</p>	<p>Incorporate into development of plans and specifications. Implement during construction.</p>	<p>Submittal and subsequent review and approval of project plans; site inspection.</p>
	<p><b>Mitigation Measure Bio-5.3:</b> Minimization measures shall include the implementation of construction Best Management Practices (BMP's) including installation of silt fencing between the construction area and the creek, demarcating fueling and vehicle/equipment maintenance areas with construction fencing or lathes and colored flagging, and demarcating staging areas adjacent to Aptos Creek or any riparian habitat or water body with construction fencing or lathes and colored flagging. Silt fencing shall be installed in all areas where construction occurs within 100 feet of actively flowing water.</p>	<p>District</p>	<p>Incorporate into development of plans and specifications. Implement prior to and during construction.</p>	<p>Submittal and subsequent review and approval of project plans; site inspections.</p>
	<p><b>Mitigation Measure Bio-5.4:</b> Construction activities adjacent to Aptos Creek shall be confined to the minimum disturbance area required for the proposed project.</p>	<p>District</p>	<p>Incorporate into development of plans and specifications. Implement during construction.</p>	<p>Submittal and subsequent review and approval of project plans; site inspection.</p>
	<p><b>Mitigation Measure Bio-5.5:</b> No equipment shall be operated within Aptos Creek, nor shall any construction activities be conducted within Aptos Creek.</p>	<p>District</p>	<p>Incorporate into development of plans and specifications. Implement during construction.</p>	<p>Submittal and subsequent review and approval of project plans; site inspection.</p>
	<p><b>Mitigation Measure Bio-5.6:</b> Temporary soil stockpiles shall be located so they do not drain directly into waterways. Stockpiles shall be covered to prevent erosion toward the creek.</p>	<p>District</p>	<p>Incorporate into development of plans and specifications. Implement during construction.</p>	<p>Submittal and subsequent review and approval of project plans; site inspection.</p>
<p><b>Tidewater, Steelhead, and Western Pond Turtle (continued)</b></p>				

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
	<p><b>Mitigation Measure Bio-5.7:</b> Staging and storage areas for equipment, materials, fuels, lubricants, and solvents shall be located at least 50 feet from the creek. No debris (such as trash and spoils) shall be deposited within 100 feet of the creek. Any equipment or vehicles driven and/or operated adjacent to the creek shall be checked daily and maintained as needed to prevent leaks of materials that, if introduced to water, could be deleterious to aquatic life. Vehicles will be moved at least 50 feet away from the creek prior to refueling and lubrication.</p> <p><b>Mitigation Measure Bio-5.8:</b> All disturbed areas shall be restored to pre-construction conditions. If disturbed, channel banks shall be returned to original grade slope. All disturbed areas shall be protected with erosion control measures such as erosion control fabric and seeded as necessary.</p>	District	Incorporate into development of plans and specifications. Implement during construction.	Submittal and subsequent review and approval of project plans; site inspection.
	<p><b>Mitigation Measure Bio-6.1:</b> A pre-construction survey for roosting bats shall be performed by a qualified biologist within 30 days prior to any removal of trees or shrubs on the site. If no active roosts are found, then no further action would be warranted.</p> <p><b>Mitigation Measure Bio-6.2:</b> If active maternity roosts or hibernacula (structures used by bats for hibernation) are found in trees or structures which will be removed as part of project construction, the project shall be redesigned to avoid the loss of the tree or shrub occupied by the roost to the extent feasible as determined by the District. If an active maternity roost is located and the project cannot be redesigned to avoid removal of the occupied tree or shrub, demolition shall commence before maternity colonies form (i.e., prior to March 1) or after young are volant (flying) (i.e., after July 31). Disturbance-free buffer zones as determined by a qualified biologist in coordination with DFG shall be observed during the maternity roost season (March 1 - July 31).</p>	District	Pre-construction surveys conducted 30 days prior to tree or shrub removal.	Contract with a qualified biologist(s) to perform species surveys.
<p><b>Bat Species</b></p> <p>There is low potential for eight bat species to occur on site due to suitable roosting habitat provided by trees present. Removal of trees or shrubs may disturb active roosts.</p>		District, DFG	Incorporate into project plans and specifications. Implement prior to construction; prior to March 1 or after July 31.	Submittal and subsequent review and approval of project plans; site inspection. Establish a disturbance-free buffer zone. Coordinate with a DFG. Contract with a qualified biologist(s) to perform species surveys.

**EXHIBIT D**

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
	<b>Mitigation Measure Bio-6.3:</b> If special-status bats are found roosting within trees on site that require removal, appropriate replacement roosts shall be created at a suitable location on site or off site in coordination with a qualified biologist, DFG, and the District.	District, DFG	Concurrent with Mitigation Measure Bio-6.2.	Coordinate with DFG. Contract with a qualified biologist(s).
	<b>Mitigation Measure Bio-6.4:</b> If a non-breeding bat hibernacula is found in a tree or structure scheduled for removal, the individuals shall be safely evicted, under the direction of a qualified biologist (as determined by a Memorandum of Understanding with the DFG), by opening the roosting area to allow airflow through the cavity. Demolition will then follow at least one night after initial disturbance by airflow. This action should allow bats to leave during darkness, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight. Trees or structures with roosts that need to be removed will first be disturbed at dusk, just prior to removal that same evening, to allow bats to escape during the darker hours.	District, DFG	Concurrent with Mitigation Measure Bio-6.2.	Coordinate with DFG. Contract with a qualified biologist(s).
<b>7. American Badger</b> Although the majority of the project area experiences heavy and continual human disturbance and is unsuitable for American badger, there is a low potential for them to occur in the eucalyptus forests and grassy fields in the vicinity of New Brighton Road, where human disturbance is significantly reduced. Although badgers are extremely unlikely to create dens within the immediate project area construction activity	<b>Mitigation Measure Bio-7.1:</b> Pre-construction surveys for American badger shall be conducted by a qualified biologist within 15 days prior to construction activity occurring in areas of suitable habitat.	District	Pre-construction surveys conducted 15 days prior to construction activity.	Contract with a qualified biologist(s) to perform species surveys.
	<b>Mitigation Measure Bio-7.2:</b> If American badgers are detected during pre-construction surveys, an appropriate non-disturbance buffer shall be established in coordination with DFG. Alternatively, permission from DFG may be obtained to passively relocate the animal.	District, DFG	Concurrent with Mitigation Measure Bio-7.1. Incorporate into project plans and specifications. Implement prior to and during construction-related activities.	Submittal and subsequent review and approval of project plans; site inspection. Establish a disturbance-free buffer zone. Coordinate with DFG.

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
project area, construction activity such as trenching, movement of vehicles, and increased human presence may disturb dens if they are present in the vicinity.	<b>Mitigation Measure Bio-7.3:</b> If the qualified biologist determines that potential dens may be active, the entrances of the dens shall be blocked with soil, sticks, and debris for three to five days to discourage use of these dens prior to project disturbance. The den entrances shall be blocked at night when badgers are actively foraging outside their dens to an incrementally greater degree over the three to five day period. After the qualified biologist determines that badgers have stopped using active dens within the project boundary, the dens shall be hand-excavated with a shovel to prevent re-use during construction.	District	Concurrent with Mitigation Measure Bio-7.2.	Contract with a qualified biologist(s) to perform species surveys. Block den entrances at night under the direction of a qualified biologist(s).
<b>II. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?</b>				
<b>1. Wetlands</b> Installation of the pipeline and placement of cement will result in permanent impacts to approximately 0.002 acre of waters of the U.S. and State. Trenching and grading activities will result in temporary impacts to approximately 0.002 acre of waters of the U.S. and State. No direct impacts will result to Aptos Creek because the pipelines will be installed using horizontal directional drilling underneath the creek. However, potential for frac-out during drilling exists.	<b>Mitigation Measure Bio-8.1:</b> The District will comply with water pollution protection provisions and conditions established by DFG and all regulatory authorities with jurisdiction over the project. These measures will include, but may not be limited to, the following:  1. The District shall provide a 'boring plan' to DFG that includes: a. A sketch of the construction site, equipment staging areas, approximate location of drill entry and exit points and the approximate location of access roads in relation to the surrounding area. b. Proposed depth of bore and a statement of streambed condition that supports the depth of the bore. c. Approximate length of bores. d. Type and size of boring equipment to be used. e. Estimated time to complete bore. f. List of lubricants and horizontal directional drilling (HDD) additives to be used.	District, DFG, NMFS, RWQCB, USACE, USFWS	During development of plans and specifications for the project; prior to and during construction.	Submittal and subsequent review and approval of project plans; site inspection. Contract with a qualified biologist(s) to perform monitoring. DFG, NMFS, RWQCB, USACE, and USFWS shall be contacted immediately if frac-out occurs.

<sup>1</sup> This plan (EDAW 2008c) has been prepared and will be submitted for approval from DFG, USFWS, and NMFS.

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Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
<p>Wetlands (continued)</p>	<ol style="list-style-type: none"> <li>g. Name of operator's agents and cell phone numbers.</li> <li>2. The District shall design, pre-plan and direct the HDD operation in such a way as to minimize the risk of spills of all types. The District shall provide a contingency plan, in the event of the release of drilling lubricants through fractures in the streambed or bank ("frac-outs"). In substrates where frac-outs are likely to occur, the Applicant shall operate in a manner that will reduce risk, such as using lower pressure and greater boring depths.</li> <li>3. The District shall prepare and implement a frac-out contingency plan to minimize potential for frac-out during directional drilling and describe BMPs for dealing with a frac-out, should one occur. Prevention and clean-up plans should include:               <ol style="list-style-type: none"> <li>a. Name(s) and phone numbers of biological monitor(s), third-party monitors, and crew supervisor(s).</li> <li>b. Site-specific resources of concern (if applicable, include factors such as possible presence of sensitive species).</li> <li>c. Monitoring protocols (including biological monitoring and frac-out monitoring).</li> <li>d. Containment and clean up-plan (include staging location of vacuum trucks and equipment, equipment list, necessary hose lengths, special measures needed for steep topography, etc. at each location).</li> </ol> </li> <li>4. In case of a frac-out into a sensitive aquatic resource, the District shall cease operations immediately and request a consultation with DFG, which may recommend additional consultation with a</li> </ol>			

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
	<p>DFG-approved state-certified HDD inspector not currently under contract with the District. If frac-out or spill is in an upland area without sensitive resources and the frac-out can be contained, the District may continue work. The District's biological monitor shall provide on-site training for the work crews to ensure protection of all stream zones. The contractor will provide continuous monitoring of the HDD boring operation to ensure adequate protection controls have been installed. All field personnel will be briefed in their responsibility for timely reporting of frac-out releases to the monitor on site. Biological monitors will inspect the route within four hours prior to the commencement of bore at the permitted sites for the presence of sensitive species. If sensitive species are found, work shall cease immediately and the DFG monitor shall be consulted.</p>			
	<p><b>Mitigation Measure Bio-8.2:</b> All disturbed areas that will not be covered by paving will be stabilized to prevent erosion. Control measures may require seeding and mulching disturbed areas or other appropriate measures.</p>	District	During development of plans and specifications for the project; during construction and after disturbance.	Submittal and subsequent review and approval of project plans; site inspection.
	<p><b>Mitigation Measure Bio-8.3:</b> The District anticipates that the hardscape drainage to Tannery Gulch will be relatively dry during the summer months when Phase 2 of the project will be constructed. Nevertheless, if water is present in the channel, the District shall dewater the channel and redirect flows around the construction activities. Upon completion, the bed of the channel shall be restored to pre-construction conditions and the flows shall be restored to original flow direction.</p>	District	Incorporate into project plans and specifications for the project during construction and post-construction.	Submittal and subsequent review and approval of project plans; site inspection.
	<p><b>Mitigation Measure Bio-8.4:</b> The District will prepare an Erosion Control Plan and Stormwater Pollution Prevention Plan (SWPPP) as part of the Section 401</p>	District, RWQCB	Erosion control plan and SWPPP to be prepared and submitted during Section 401 certification process.	Submittal and subsequent review and approval of project plans; site inspection.

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
<p><b>Wetlands</b> (continued)</p>	<p>Certification process, which will meet water quality standards for the County of Santa Cruz, City of Capitola, California State Parks, and the RWQCB. Erosion control measures will comply with Santa Cruz County erosion control standards (Santa Cruz County Code § 16.22) and City of Capitola erosion control standards (Capitola Municipal Code § 17.95.050(G)). At a minimum, the District will install silt fencing, or a silt fence and straw wattling combination, to prevent erosion from entering the creek. After grading or excavation, the project area will be hydroseeded and replanted with a native riparian seed mix above the ordinary high water mark (OHWM). Specific measures in the SWPPP will include, but are not limited to, the following:</p> <ol style="list-style-type: none"> <li>1. Construction activities within the area of the (OHWM) will be limited to the period from May 30<sup>th</sup> to October 1st of each construction year.</li> <li>2. Construction activities that occur between October 1 and May 31 within the floodplain, but above the OHWM, will be limited to those actions that can adequately withstand high flows without resulting in the inundation of and entrainment of materials in floodflows.</li> <li>3. The channel bed that empties into Tannery Gulch shall be restored to pre-construction conditions and flows shall be restored to original flow direction, if dewatering is necessary.</li> <li>4. Stockpiling of construction materials, including portable equipment, vehicles and supplies, including chemicals, will be restricted to the designated construction staging areas.</li> <li>5. Equipment and vehicles operated within the floodplain will be checked and maintained daily to prevent leaks of fuels, lubricant or other fluids to the creek.</li> <li>6. Refueling of construction equipment and</li> </ol>		<p>401 certification process; during development of plans and specifications for the project; during construction and post-construction clean-up.</p>	<p>project plans; site inspection.</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
<p><b>Wetlands (continued)</b></p>	<p>vehicles within the floodplain will only occur within designated, paved, bermed areas where possible spills will be readily contained.</p> <ol style="list-style-type: none"> <li>7. Clean up spills immediately when they happen using dry cleanup methods whenever possible and, if water must be used, use just enough to keep the dust down.</li> <li>8. Store materials under cover.</li> <li>9. Cover and maintain dumpsters.</li> <li>10. Clean up paints and solvents, adhesives, and cleaning solutions properly.</li> <li>11. Keep fresh concrete and cement mortars out of gutters, storm drains, and streams.</li> <li>12. Service and maintain portable toilets.</li> <li>13. Dispose of cleared vegetation and soils properly.</li> <li>14. Litter and construction debris will be removed from below the OHWM line daily, and disposed of at an appropriate site. All litter, debris and unused materials, equipment or supplies will be removed from construction staging areas above OHWM at the end of each summer construction season.</li> <li>15. Erosion control measures that prevent soil or sediment from entering the creek will be installed, monitored for effectiveness, and maintained throughout the construction operations.</li> </ol>			
<p><b>III. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?</b></p>				

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
1. Birds Construction could temporarily disrupt foraging and nesting activities of bird species and migratory birds that intermittently, seasonally and/or temporarily use the area.	Refer to Mitigation Measures Bio-3.1 to 3.5 and 4.1 to 4.4.	District	Refer to Timing of Compliance for Mitigation Measures Bio-3.1 to 3.5 and 4.1 to 4.4.	Refer to Method of Compliance for Mitigation Measures Bio-3.1 to 3.5 and 4.1 to 4.4.
<b>IV. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?</b>				
1. Eucalyptus, Monterey Cypress, Monterey Pine, and Coast Live Oak Construction activities will directly impact 6 trees. An additional 53 trees may be impacted and may require removal within sections of the proposed Tannery Gulch dump Station and New Brighton on ampground. The remaining 51 trees on-site will not be impacted and will be preserved.	<p><b>Mitigation Measure Bio-9.1:</b> Based on the arborist report (Appendix C) and a field reconnaissance conducted by EDAA ISA certified arborist Kristin Asmus on July 9, 2008, a tree protection zone shall be established, as defined by the dripline or trunk diameter methods (whichever measurement occurs farthest from the tree trunk), in the following areas:</p> <ol style="list-style-type: none"> <li>1. Seaciff State Beach Access Road, Stations 403 through 424.</li> <li>2. McGregor Drive through State Park Drive, Stations 201 through 305.</li> <li>3. New Brighton Road, Stations 15 through 16.5 and 17+50, through 32+43.</li> <li>4. New Brighton State Beach, Stations 600 through 618.</li> <li>5. Park Avenue, Stations 100-132</li> </ol> <p><b>Mitigation Measure Bio-9.2:</b> Site and grading plans shall be modified in coordination with a certified arborist to identify the tree protection zone. Alternatively, a certified arborist shall prepare separate plans that identify the tree protection zone.</p>	District	Incorporate into project plans and specifications. Implement prior to and during construction.	Submittal and subsequent review and approval of project plans; site inspection.
	<p><b>Mitigation Measure Bio-9.3:</b> Tree preservation notes shall be included on all project plans, or the tree protection zone plans.</p>	District	Incorporate into project plans and specifications. Implement prior to construction.	Submittal and subsequent review and approval of project plans.

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
Eucalyptus, Monterey Cypress, Monterey Pine, and Coast Live Oak (continued)	<b>Mitigation Measure Bio-9.4:</b> The project plans shall indicate all trees approved for removal. All other trees will be placed into two tiers. Tier 1 trees are to be protected with fencing and shall not be removed. The District, in coordination with a certified arborist, shall identify Tier 1 trees within the project area on the project plans. Tier 2 trees shall be protected to the extent practicable, such that removal and disturbance to root zones shall be avoided and minimized. Tier 2 trees shall not be removed, unless a certified arborist determines it is necessary as detailed below. It is presumed that all trees encountered in the project area that are not designated for removal or as Tier 1 are Tier 2 trees.	District	Incorporate into project plans and specifications. Implement prior to and during construction.	Submittal and subsequent review and approval of project plans; site inspection. Contract with certified arborist(s) for surveys.
	<b>Mitigation Measure Bio-9.5:</b> The Santa Cruz County Code requires a Tree Removal permit for the removal of any "significant" tree (Santa Cruz County Code § 16.34.030). The District shall obtain a permit if it is determined that trees to be removed are significant as defined by Santa Cruz County Code. The planning director may require mitigation to potential visual impacts, such as replacement of trees as conditions of approval of the permit. The District shall comply with conditions of the tree removal permit. Alternatively, tree replacement will be required under the Sensitive Habitat Ordinance (Santa Cruz County Code § 16.32).	District, Santa Cruz County	Prior to construction. The District shall apply for a tree removal permit prior to Tree Removal.	Obtain Tree Removal permit.
	<b>Mitigation Measure Bio-9.6:</b> Any removal of Monterey pine trees and Monterey cypress trees in New Brighton State Beach shall be replaced with native vegetation (e.g., coast live oak, ceanothus, etc.) to comply with policies in the New Brighton State Beach General Plan (Department of Parks and Recreation 1990, pp. 16 and 67).	District	Mitigation during post-construction activities. Incorporate into project plans and specifications. Implement prior to construction.	Comply with New Brighton State Beach General Plan. Submittal and subsequent review and approval of project plans; site inspection.

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
Eucalyptus, Monterey Cypress, Monterey Pine, and Coast Live Oak (continued)	<b>Mitigation Measure Bio-9.7:</b> Prior to start of construction, the District, contractor, and a certified arborist shall meet to: <ol style="list-style-type: none"> <li>1. Review the tree protection zone.</li> <li>2. Determine the need and location for fencing around protected trees.</li> <li>3. Review planned work procedures around trees.</li> <li>4. Identify locations where specialized treatments are required.</li> <li>5. Review the requirements for clearance pruning based on the contractor's equipment.</li> </ol>	District	Pre-construction meeting.	Contract with certified arborist(s) to review plans.
	<b>Mitigation Measure Bio-9.8:</b> Trees designated for Tier 1 protection shall be fenced at the dripline or extent of the trunk diameter method, whichever is greater. Fences shall be orange construction fencing or equivalent as approved by the certified arborist. Fences are to remain until all grading, trenching, and construction is completed.	District	Incorporate into project plans and specifications. Implement prior to and during construction.	Submittal and subsequent review and approval of project plans; site inspection.
	<b>Mitigation Measure Bio-9.9:</b> Tree removal work should be completed prior to the initiation of construction. A certified arborist shall be present during tree removal to ensure no impacts or damage to surrounding trees. The nonnative eucalyptus trees to be removed for the Tannery Gulch Pump Station are isolated, but care should be taken during pruning or felling to avoid impacts to nearby trees.	District	Prior to the start of construction.	Contract with certified arborist(s) to perform monitoring.
	<b>Mitigation Measure Bio-9.10:</b> Pruning should be kept to the minimum necessary for safety, improving long-term tree structure, and providing the necessary clearance for construction equipment. All pruning shall be performed by a tree care contractor possessing a State of California Contractors License for Tree Service (C61-D49) and providing proof of workman's compensation and general liability insurance. A certified arborist shall supervise all pruning activities.	District	Incorporate into development of plans and specifications for the project; prior to and during construction.	Contract with a qualified tree care contractor to perform pruning activities.

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
	<b>Mitigation Measure Bio-9.11:</b> A certified arborist shall conduct a pre-construction meeting to explain the tree protection zone and the tree preservation measures to be implemented within the tree protection zone. All construction supervisors shall attend. Personnel must understand that access to or work within the tree protection zone requires additional care, avoidance and minimization measures and must be supervised by a certified arborist.	District	Pre-construction meeting.	Contract with a qualified arborist(s) to perform pre-construction personnel training.
	<b>Mitigation Measure Bio-9.12:</b> Any work that needs to occur within the Tree Protection Zone shall be directly supervised by a certified arborist.	District	Incorporate into project plans and specifications. Implement during construction-related activities.	Contract with certified arborist(s) to perform monitoring. Submittal and subsequent review and approval of project plans; site inspection.
	<b>Mitigation Measure Bio-9.13:</b> No excess soil, chemicals, debris, equipment, or other materials shall be dumped or stored within the Tree Protection Zone.	District	Incorporate into project plans and specifications. Implement during construction.	Submittal and subsequent review and approval of project plans; site inspection.
	<b>Mitigation Measure Bio-9.14:</b> Where practicable, the District shall avoid or minimize the removal of trees and disturbance to root zones. All trenching within the Tree Protection Zone that is within 15 feet of buttress root systems shall be performed by "ditch-witching" type trenching equipment. This method of trenching ensures cleaner cuts and less tearing or ripping of roots.	District	Refer to Timing of Compliance for Mitigation Measure Bio-9.13.	Refer to Method of Compliance for Mitigation Measure Bio-9.13.
	<b>Mitigation Measure Bio-9.15:</b> Roots greater than 1.5 inch in diameter encountered in the Tree Protection Zone during ditch-witch trenching should be severed cleanly with a saw, rather than torn by grading equipment. A certified arborist shall supervise all root pruning. Roots shall be pruned to a point 1 inch behind the edge of damage from trenching equipment. As roots are encountered during excavation, they are to be pruned at the edge of the excavation.	District	Refer to Timing of Compliance for Mitigation Measure Bio-9.13.	Refer to Method of Compliance for Mitigation Measure Bio-9.13.



Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
	<b>Mitigation Measure Bio-9.16:</b> A certified arborist does not need to supervise all work outside the Tree Protection Zone. However, a certified arborist shall be notified when roots greater than 3 inches in diameter are encountered outside the Tree Preservation Zone. The certified arborist shall determine the appropriate procedures (either root-pruning or tree removal) depending on pre-existing tree condition, damage to the tree, and tree species.	District	Refer to Timing of Compliance for Mitigation Measure Bio-9.12.	Notify certified arborist. Refer to Method of Compliance for Mitigation Measure Bio-9.12.
	<b>Mitigation Measure Bio-9.17:</b> If injury should occur to any tree during construction, including broken branches, a certified arborist should be notified as soon as possible. The arborist shall evaluate appropriate treatments that may be applied.	District	Refer to Timing of Compliance for Mitigation Measure Bio-9.12.	Notify certified arborist. Refer to Method of Compliance for Mitigation Measure Bio-9.12.
	<b>Mitigation Measure Bio-9.18:</b> Any additional tree pruning or removal needed during construction must be performed under the supervision of a certified arborist, not by construction personnel, as detailed in Pre-Construction Treatments #3-4 above.	District	Refer to Timing of Compliance for Mitigation Measure Bio-9.12.	Refer to Method of Compliance for Mitigation Measure Bio-9.12.
	<b>Mitigation Measure Bio-9.19:</b> Any herbicides placed under paving materials must be safe for use around trees and labeled for that use.	District	Refer to Timing of Compliance for Mitigation Measure Bio-9.13.	Refer to Method of Compliance for Mitigation Measure Bio-9.13.
	<b>Mitigation Measure Bio-9.20:</b> Any modifications to locations of fence protections or other work within the Tree Protection Zone not discussed in the pre-construction meetings must be approved and monitored by the certified arborist.	District	Refer to Timing of Compliance for Mitigation Measure Bio-9.12.	Refer to Method of Compliance for Mitigation Measure Bio-9.12.
	<b>Mitigation Measure Bio-9.21:</b> Trees preserved at the site will experience a physical environment different from pre-project conditions. As a result, the District shall prepare a management plan for preserved trees that includes pruning, fertilization, mulch, pest management, replanting, and irrigation. Preserved trees that are impacted shall be monitored for a period of 5 years.	District	Post-construction mitigation. Incorporate into a vegetation management plan.	Submittal and subsequent review and approval of vegetation management plan. Conduct 5-year post-construction monitoring plan.

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
	<p><b>Mitigation Measure Bio-9.22:</b> Regular visual inspection of impacted trees should be performed to assess tree health. Visual assessments of decline for specific trees should be recorded and referenced against the pre-construction health assessment conducted by J.P. Allen &amp; Associates 2008 (Appendix C). The management plan should include an annual inspection for hazard potential.</p>	District	Refer to Timing of Compliance for Mitigation Measure Bio-9.21.	Monitoring by a certified biologist(s). Refer to Method of Compliance for Mitigation Measure Bio-9.21.
	<p><b>Mitigation Measure Bio-9.23:</b> For each native tree that is removed, trees shall be replaced with native trees on site at a minimum 2:1 (replacement: loss) ratio. For each nonnative tree that is removed, trees shall be replaced with native trees on site at a minimum 1:1 (replacement: loss) ratio.</p>	District	Post-construction mitigation and monitoring. Incorporate into a vegetation monitoring plan.	Submittal and subsequent review and approval of vegetation monitoring plan.
	<p><b>Mitigation Measure Bio-9.24:</b> The District shall prepare a tree replanting and monitoring plan prior to the onset of any construction related activities that details the locations of tree removal, locations of tree plantings, species of tree plantings, and performance standards for survival. Tree plantings shall be monitored for a period of 5 years to assess survival and compliance with performance standards. During the monitoring period, dead trees shall be replaced in kind, unless the District demonstrates the site is not conducive to survival of the tree species, in which case alternative species may be used. At the end of the monitoring period, the District must demonstrate at least 75 percent survival of replanted trees.</p>	District	Prior to construction, prepare and incorporate into a vegetation monitoring plan. Post-construction mitigation and monitoring.	Submittal vegetation monitoring plan. Conduct 5-year post-construction monitoring.

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
<p><b>Cultural Resources</b></p> <p>1. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.</p> <p>On the basis of existing information, the project archaeological study concludes that at least two of the recorded archaeological sites, SCR-213 and SCR-264 may be impacted by project pipeline trenching operations. At least one other site, SCR-232, is located close to the pipeline alignment. However, it is located at an elevation below the tracks which make it highly unlikely that it would continue to slope at a depth which would be affected by the new pipeline construction.</p>	<p><b>Mitigation Measure Cul-1.1:</b> Prior to commencement of construction activities, the project archaeologist shall complete the Section 106 process pursuant to the NHPA and in compliance with the CEQA-Plus process pursuant to the <i>Environmental Review Process Guidelines for State Revolving Fund Loan Applicants</i> (SWRCB 2004). According to the <i>Environmental Review Process Guidelines for State Revolving Fund Loan Applicants</i> (SWRCB 2004), "federal consultation may also be initiated before or after CEQA review, but must be completed before a funding agreement from the State Revolving Fund can be approved by the SWRCB." The Section 106 and CEQA-Plus process shall include an inventory of cultural resources by conducting a program of mechanical subsurface presence/absence testing. Any cultural resources thus identified will be evaluated for significance and if found to be eligible for inclusion on the California Register of Historic Resources and/or the NRHP. The District shall complete the CEQA-Plus process by conducting these studies according to Section 106 standards. It is anticipated that the SWRCB will be the lead agency for purposes of a Section 106 consultation with the SHPO because the project anticipates receiving funding from the State Revolving Fund.</p>	District, SHPO, SWRCB	Prior to the start of construction activities.	A qualified archaeologist completes Section 106 of the National Historic Properties Act. SWRCB consults with SHPO.

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
	<p><b>Mitigation Measure Cul-1.2:</b> During the CEQA-Plus and Section 106 Process, it is determined that the above mentioned sites are eligible for inclusion on the California Register of Historic Resources or NRHP and these sites are located within the Area of Potential Effect or impact zone, mitigation shall be implemented prior to and during construction of the pipeline. Mitigation prior to construction shall include data retrieval of the archaeological materials. During construction, a registered archaeologist shall be present to monitor all construction activities within the recorded sites to guarantee that significant archaeological materials and information are recorded and/or removed for further analysis. A formal Archaeological Monitoring Agreement should be executed between the County, State Parks, construction contractors, and archaeological monitors detailing the procedures, definitions, and techniques of archaeological monitoring. Following completion of archaeological monitoring, a monitoring report should be produced. The report should analyze any impacts, results, and discoveries observed during the monitoring period. In addition, all archaeological resources should be formally recorded to California Historical Resources Information System standards.</p>	Archaeological Monitors, Contractors, County, District, State Parks	Incorporate mitigation into project plans and specifications for the project; Implement during construction. Establish mitigation prior to and during construction. Prepare Archaeological Monitoring Agreement prior to construction. Conduct monitoring during construction. Prepare monitoring reports post-construction.	Submittal and subsequent review and approval of project plans; site inspection. Contract with certified archaeologist to conduct monitoring. Enter into agreement with Archaeological Monitors, Contractors, County, District, State Parks.
	<p><b>Mitigation Measure Cul-1.3:</b> During construction for areas located outside of the recorded sites, in the event that buried archaeological deposits or artifacts are inadvertently exposed during the course of any construction activity, work shall cease in the immediate area and a qualified archaeologist shall be notified to document the find, assess its significance, and recommend further treatment.</p>	District, Qualified Archaeologist	Incorporate into project plans and specifications. Implement during construction.	Submittal and subsequent review and approval of project plans; site inspection. Notify qualified archaeologist.
<p>2. <b>Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.</b> Santa Cruz County paleontological maps show no known sites within the boundaries of the project. The County Geologist has identified</p>	<p>Refer to Mitigation Measures Cul-1.3. Mitigation Measure Cul-1.3 is modified to include paleontological resources; thus, the measure would avoid or reduce the potential for an impact.</p>	Refer to Mitigation Measures Cul-1.3.	Refer to Mitigation Measures Cul-1.3.	Refer to Mitigation Measures Cul-1.3.

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
<p>the coastal bluff area as a potential location of paleontological resources such as whale bones. Disturbance of these resources would be minimal due to the horizontal directional drilling techniques in the coastal bluff areas of the project site.</p>				
<p><b>3. Disturb human remains, including those interred outside of formal cemeteries.</b></p> <p>There are no known cemeteries or human remains within the project area.</p>	<p><b>Mitigation Measure Cul-2:</b> In the event that any human remains or any associated funerary objects are encountered during construction, all work shall cease within the vicinity of the discovery. In accordance with CEQA (Section 1064.5) and the California Health and Safety Code (Section 7050.5), the Santa Cruz County Coroner should be contacted immediately. If the human remains are determined to be Native American, the coroner shall notify the American Heritage Commission, who shall notify and appoint a Most Likely Descendant (MLD). The MLD shall work with a qualified archaeologist to decide the proper treatment of the human remains and any associated funerary objects.</p>	<p>District, Santa Cruz County Coroner</p>	<p>Incorporate into project plans and specifications for the project; during construction.</p>	<p>Submittal and subsequent review and approval of project plans; site inspection. Notify Santa Cruz County Coroner.</p>

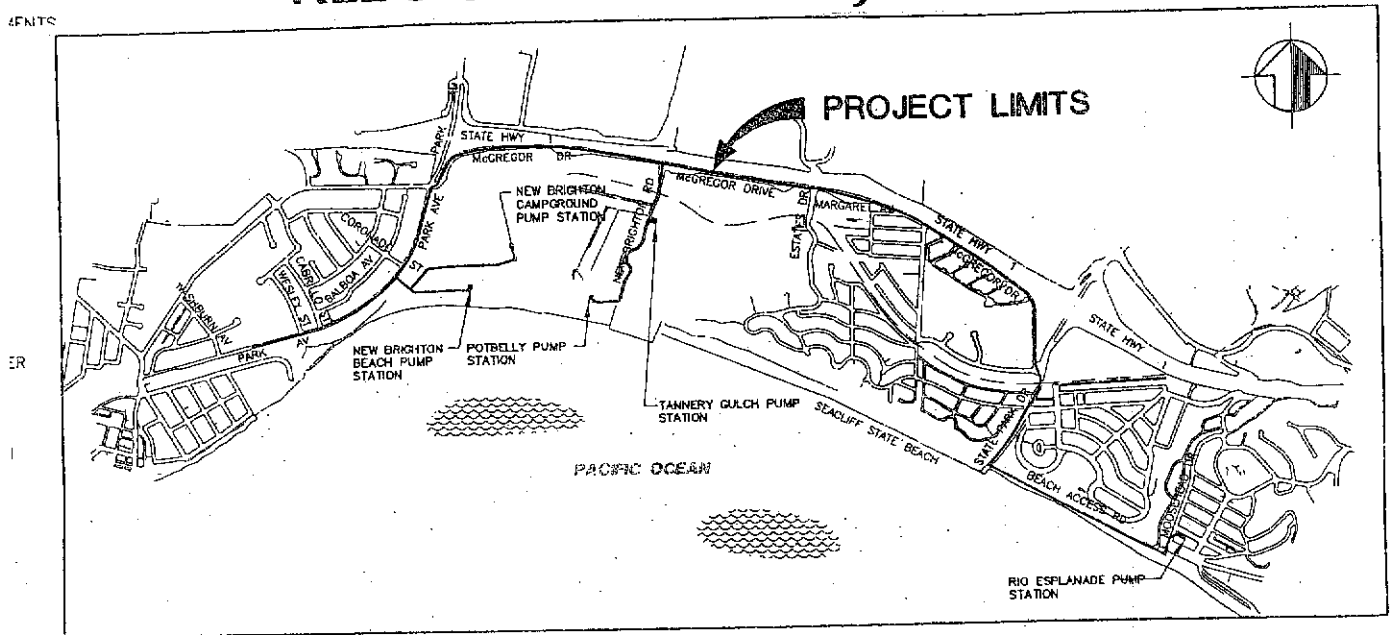
Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
<b>Geology</b>				
<p>1. Result in substantial soil erosion or the loss of topsoil.</p> <p>The project involves the excavation of and transportation of sediment. These activities could lead to overall erosion and loss of topsoil.</p>	<p><b>Mitigation Measure Geo-1:</b> Specific measures including, but not limited to the following, shall be implemented to reduce erosion or the loss of topsoil:</p> <ul style="list-style-type: none"> <li>Construction operations within federal and state jurisdictional waters shall not be conducted during the rainy season.</li> <li>Limits of the area to be cleared and/or graded shall be clearly defined and marked to prevent damage by construction equipment.</li> <li>Installing the erosion control blanket and revegetation of the project area as detailed in the Erosion Control Plan and Planting Palette in Table 5 above shall be implemented as soon as possible.</li> <li>Topsoil overburden shall be stockpiled and redistributed within the graded area after rough grading to provide a suitable base for seeding and planting.</li> </ul>	District	Incorporate into project plans and specifications. Implement during construction.	Submittal and subsequent review and approval of project plans; site inspection.
<b>Hazardous and Hazardous Materials</b>				
<p>1. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.</p> <p>Trenching in and adjacent to roadways would require closure of one lane and detours could reduce roadway capacities, impede emergency access, and cause congestion.</p>	<p><b>Mitigation Measure Haz-1:</b> The District shall prepare a Traffic Control Plan (TCP) to the satisfaction of the County Transportation Engineer, the City of Capitola, and California State Parks. The TCP shall identify locations and timing of all lane closures and detours, and comply with all California State Parks requirements for any lane closures proposed within the State Parks. The TCP also shall provide for access to private driveways and park facilities during construction. The TCP shall include alternative routes or safety measures for pedestrians and bicyclists. For any roadway disruptions in the City of Capitola or unincorporated Aptos, those jurisdictions shall be consulted and their requirements incorporated into those portions of the TCP.</p>	District, City of Capitola, Santa Cruz County Transportation Engineer, California State Parks	Prior to the start of construction activities. Incorporate Traffic Control Plan and implement during construction.	Submittal and subsequent review and approval of project plans; site inspection.
<b>Hydrology and Water Quality</b>				
<p>1. Violate water quality standards or waste</p>	<p><b>Mitigation Measure Hydro-1:</b> To ensure that water quality standards and waste discharge requirements</p>	District, RWQCB	Erosion control plan and SWPPP to be prepared and	Submittal and subsequent review

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
<b>discharge requirements.</b> Surface water runoff from the project site during construction could impact water quality off site if not properly controlled. Surface runoff could contain sediment as a result of erosion if proper construction techniques are not implemented.	are not violated, the District will incorporate the following measures: ▶ Prevent spills and leaks from construction vehicles and equipment. ▶ Clean up spills immediately when they happen using dry cleanup methods whenever possible and, if water must be used, use just enough to keep the dust down. ▶ Store materials under cover. ▶ Cover and maintain dumpsters. ▶ Clean up paints and solvents, adhesives, and cleaning solutions properly. ▶ Keep fresh concrete and cement mortars out of gutters, storm drains, and streams. ▶ Service and maintain portable toilets. ▶ Dispose of cleared vegetation and soils properly. ▶ Make sure all demolition waste is properly disposed.		submitted during Section 401 certification process. Incorporate into project plans and specifications. Implement during construction.	and approval of erosion control plan, SWPPP, and project plans; site inspection.
<b>2. Inundation by seiche, tsunami, or mudflow.</b> A portion of the project area is within seiche or tsunami range.	<b>Mitigation Hydro-2:</b> Weatherproof and secure equipment in below-grade 15-foot-deep wet well in the Potbelly Beach Pumping Station.	District	Incorporate into project plans and specifications. Implement during construction.	Submittal and subsequent review and approval of project specifications; site inspection.
<b>Public Services and Utilities</b>				
<b>Fire and police protection</b> Project construction would require lane closures and/or detours that could affect emergency access for fire and police protection.	Refer to Mitigation Measure Haz-1.	District	Refer to Timing of Compliance for Mitigation Measure Haz-1.	Refer to Compliance Verification for Mitigation Measure Haz-1.
<b>Transportation and Traffic</b>				
<b>Traffic, emergency access, and highway hazards.</b> Project construction would require lane closures and/or detours that	Refer to Mitigation Measure Haz-1.	District	Refer to Timing of Compliance for Mitigation Measure Haz-1.	Refer to Compliance Verification for Mitigation Measure Haz-1.

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Timing of Compliance	Method of Compliance
will affect transportation.				

















# PROJECT PLANS FOR CONSTRUCTION OF APTOS TRANSMISSION MAIN RELOCATION PROJECT



**VICINITY MAP**

SCALE 1"=1200'



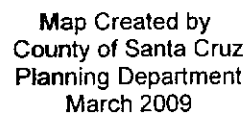
- |   |   |
|---|---|
|  Assessors Parcels       |  COMMERCIAL-PROF OFFICE    |
|  State Highways          |  COMMERCIAL-VISITOR ACCOM. |
|  County Boundary         |  PARK                      |
|  CAPITOLA                |  PUBLIC FACILITY           |
|  AGRICULTURE RESIDENTIAL |  RESIDENTIAL-MULTI FAMILY  |
|  COMMERCIAL-COMMUNITY    |  RESIDENTIAL-SINGLE FAMILY |
|  COMMERCIAL-NEIGHBORHOOD |  SPECIAL USE               |

Map Created by  
County of Santa Cruz  
Planning Department  
March 2009



Legend:

- Assessors Parcels
- State Highways
- County Boundary
- CAPITOLA
- Commercial-Community
- Commercial-Neighborhood
- Commercial-Office
- Commercial-Service
- Commercial-Visitor Accom.
- Parks and Recreation
- Public Facilities
- Residential-Mountain
- Residential-Rural
- Residential-Suburban
- Residential - Urban Very Low Density
- Residential - Urban Low Density
- Residential - Urban Medium Density
- Residential - Urban High Density
- Urban Open Space





Linda S. Adams  
Secretary for  
Environmental Protection

# State Water Resources Control Board

## Division of Financial Assistance

1001 I Street, Sacramento, California 95814 • (916) 341-5700  
Mailing Address: P.O. Box 944212 • Sacramento, California 94244-2120  
FAX (916) 341-5707 • <http://www.waterboards.ca.gov>



Arnold Schwarzenegger  
Governor

MAR 2 2009

Mr. Matthew Johnston  
Santa Cruz County  
701 Ocean Street  
Santa Cruz, CA 95060

Dear Mr. Johnston:

INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION (IS/MND) FOR SANTA CRUZ COUNTY (COUNTY); APTOS TRANSMISSION MAIN RELOCATION PROJECT (PROJECT); SANTA CRUZ COUNTY; STATE CLEARINGHOUSE NO. 2009012086

We understand the County is pursuing Clean Water State Revolving Fund (CWSRF) financing for this Project (CWSRF No. C-06-4831-110). As a funding agency and a State agency with jurisdiction by law to preserve, enhance, and restore the quality of California's water resources, the State Water Resources Control Board (State Water Board) is providing the following information for the environmental document prepared for the Project.

Following the public review period please provide us with the following documents applicable to the proposed Project: (1) two copies of the final IS/MND, (2) the resolution adopting the IS/MND making California Environmental Quality Act (CEQA) findings, (3) all comments received during the review period and the County's response to those comments, (4) the adopted Mitigation Monitoring and Reporting Program, and (5) the Notice of Determination filed with the Governor's Office of Planning and Research (OPR). In addition, we would appreciate notices of any hearings or meetings held regarding environmental review of any projects to be funded by the State Water Board.

The CWSRF Program is partially funded by the U.S. Environmental Protection Agency (USEPA) and requires additional "CEQA-Plus" environmental documentation and review. The State Water Board is required to consult directly with agencies responsible for implementing federal environmental laws and regulations. Any environmental issues raised by federal agencies or their representatives will need to be resolved prior to State Water Board approval of a CWSRF funding commitment for the proposed Project. Please refer to the four enclosures that further explain the CWSRF Program environmental compliance process. For further information on the CWSRF Program environmental compliance process, please contact Ms. Michelle L. Jones at (916) 341-6983.

It is important to note that prior to a CWSRF funding commitment, projects are subject to provisions of the federal Endangered Species Act (ESA), and must obtain Section 7 clearance from the U.S. Fish and Wildlife Service (USFWS), and/or National Marine Fisheries Service (NMFS) for any potential effects to special status species. Please be advised that the State Water Board will consult with USFWS, and/or NMFS regarding all federal special status species the Project has the potential to impact if the Project is to be funded under the CWSRF Program.

MAR 2 2009

Mr. Matthew Johnston

- 2 -

The City will need to identify whether the Project will involve any direct effects from construction activities or indirect effects, such as growth inducement, that may affect federally-listed threatened, endangered, or candidate species that are known, or have a potential to occur on-site, in the surrounding areas, or in the service area, and to identify applicable conservation measures to reduce such effects.

In addition, CWSRF projects must comply with federal laws pertaining to cultural resources, specifically Section 106 of the National Historic Preservation Act. The State Water Board has responsibility for ensuring compliance with Section 106 and the State Water Board's Cultural Resources Officer (CRO) must consult directly with the California State Historic Preservation Officer (SHPO). SHPO consultation is initiated when sufficient information is provided by the CWSRF applicant. Please contact the CRO, Ms. Cookie Hirn, at (916) 341-5690, to find out more about the requirements, and to initiate the Section 106 process.

Other federal requirements pertinent to the Project under the CWSRF Program include the following:

- A. Compliance with the Coastal Zone Management Act: Identify the status of any coordination with the California Coastal Commission.
- B. Protection of Wetlands: Identify the status of coordination with the U.S. Army Corps of Engineers (USACE).
- C. Compliance with the Flood Plain Management Act: Provide a copy of the flood zone maps for the Project area.

Following are specific comments on the County's IS/MND:

- 1) Regarding the State Water Board's CEQA-Plus process, page 6 of the IS/MND states "However, instead of the National Environmental Policy Act, USEPA has chosen to use CEQA as the compliance base, in addition to compliance with the Federal Endangered Species Act (FESA), NHPA, and the Federal General Conformity Rule for the Federal Clean Air Act." The statement seems to suggest that CEQA serves as a compliance base for certain federal regulations. As a result, the statement would be incorrect. Although CEQA serves to meet USEPA's obligations under the National Environmental Policy Act for the CWSRF Program, CEQA does not always serve to meet compliance with other federal regulations, since there might be additional coordination needs and approval requirements. Nevertheless, most federal cross-cutting regulations (federal cross-cutters) are already imposed on state and local agencies and must be included as part of California's environmental process. Therefore, these federal cross-cutters and project impacts subject to these regulations must be addressed and analyzed in the CEQA document. In addition to the three federal cross-cutters identified, there are other ones pertinent to the Project, as stated earlier in this letter.
- 2) Mitigation Measure Bio-1.1 on page 52 states that "Surveys shall be conducted either for adult Ohlone tiger beetles during their active period (January – April), or for larval burrows during the remainder of the year (May – December)." Mitigation Measure Bio-1.2 on page 52 states that "If Ohlone tiger beetles are found to be present, any work within 100 feet of their habitat shall be conducted between May and December, outside of the period when adults are active above ground and could stray into the work area."

- However, there is no mitigation measure addressing if larval burrows are found during the May – December surveys. State if mitigation is necessary if larval burrows are found during the surveys and include any applicable mitigation in the IS/MND.
- 3) On page 55, Mitigation Measure Bio-5.1 incorrectly identifies USFWS as "USWFS." Please make correction.
  - 4) For Mitigation Measure Bio-5.1 on page 55, provide suggested timing for construction activities near Aptos Creek in addition to the mitigation measure's existing requirement for consultation with NMFS and USFWS. Please note that compliance with laws, statutes, and regulations is not mitigation. Please change Mitigation Measure Bio-5.1 to include specific feasible actions that will minimize or avoid potential impacts to water quality and reduce these impacts to less than significant. Also substantiate the effectiveness of this mitigation, and show how it is enforceable. For more information on mitigation refer to CEQA Guidelines Article 20, Section 15370.
  - 5) On page 55, for Mitigation Measure Bio-5.2, describe the elements of the frac-out contingency plan.
  - 6) The last sentence of Mitigation Measure Bio-5.7 on page 55 states "Vehicles will be moved away from the creek prior to refueling and lubrication." Approximate the distance vehicles will be moved away from the creek prior to refueling and lubrication.
  - 7) Please note that for Mitigation Measure Hydro-1 on page 84, compliance with laws, statutes, and regulations is not mitigation. Please change Mitigation Measure Hydro-1 to include specific feasible actions that will minimize or avoid potential impacts to water quality and reduce these impacts to less than significant. Also substantiate the effectiveness of this mitigation, and show how it is enforceable. For more information on mitigation refer to CEQA Guidelines Article 20, Section 15370.
  - 8) Include a flood map showing where the Project will be located in relation to the flood zones.
  - 9) CEQA presumes a species to be endangered, rare, or threatened, if it is listed in the California ESA or the federal ESA [CEQA Guidelines, Section 15380(c)]. If a federally listed species and/or its habitat may be adversely affected as a result of the Project, CEQA requires the lead agency to consult with the federal agency which has jurisdiction over the species involved [CEQA Guidelines, Section 15086(a)(3)]. Further, if a state listed species may be adversely affected by the Project, CEQA requires the lead agency to consult with the California Department of Fish and Game (DFG), as well as receive and address DFG comments [California Fish and Game Code Section 2053].

The County is required by law to consult with applicable federal and state agencies (e.g., DFG, NMFS, USFWS) regarding the Project's potential to adversely affect the state and federally listed species identified in the IS/MND and any other species identified by these state and federal agencies.



MAR 2 2009

Furthermore, the State Water Board is obligated to follow DFG Code 2053 which states that "state agencies should not approve projects as proposed which would jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy." Please describe the County's consultation process with DFG for state listed species.

For species that are both state and federally listed, conservation measures required by one agency may not be the same as those required by another agency and coordination may be necessary. Please note that if NMFS or USFWS is required to prepare a biological opinion for the Project, the County may have to wait one to two years to begin construction. Additionally, these agencies may require changes to the Project to avoid adverse effects to federally listed species.

- 10) Page 6 of the IS/MND states "...the proposed project may affect federally listed species and their designated critical habitat. Therefore, Section 7 consultation will be required with USFWS and NMFS. SWRCB will be the lead agency for FESA and NHPA compliance." Please inform the State Water Board Project Manager, Ms. Hoa Ly, and clarify whether the County is requesting that the State Water Board initiate federal consultation, or whether the USACE will be the lead federal agency regarding federal cross-cutters.
- 11) Mitigation Measure Cul-1.1, states that "it is anticipated that the SWRCB will be the lead for purposes of a Section 106 consultation with the SHPO." As in the previous comment, please confirm if the County is requesting that the State Water Board act as the lead federal agency.

Thank you again for the opportunity to review the County's IS/MND. If you have any questions or concerns, please feel free to contact me at (916) 341-6983, or by email at [MLJones@waterboards.ca.gov](mailto:MLJones@waterboards.ca.gov).

Sincerely,



Michelle L. Jones  
Environmental Scientist

cc: State Clearinghouse  
(Re: SCH# 2009012086)  
P.O. Box 3044  
Sacramento, CA 95812-3044



## DEPARTMENT OF TRANSPORTATION

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February 27, 2009

SCr : 1-10.54 / 1-12.09  
SCH# : 2009012086

Mr. Matthew Johnston  
Planning Department  
County of Santa Cruz  
701 Ocean Street, 4<sup>th</sup> Floor  
Santa Cruz, CA 95060

Dear Mr. Johnston:

COMMENTS ON THE MITIGATED NEGATIVE DECLARATION FOR THE APTOS  
TRANSMISSION MAIN RELOCATION PROJECT

The California Department of Transportation (Department), District 5, Development Review, has reviewed the above referenced project and has the following comments.

1. Please insure that the new sewer line is constructed at least two feet away from any of the Department's culverts that it crosses. *CMD*
2. Any temporary signage placed within the State's right-of-way must be prepared by a registered Civil Engineer using the Guidelines from the California Manual on Uniform Traffic Control Devices (2006), which can be found on the Department's Website at:  
[http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/ca\\_mutcd.htm](http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/ca_mutcd.htm). *CMD*
3. Any work completed in the State's right-of-way will require an encroachment permit, and must be done to the Department's engineering and environmental standards, and at no cost to the State. The conditions of approval and the requirements for obtaining the encroachment permit are issued at the sole discretion of the Permits Office, and nothing in this letter shall be implied as limiting those future conditions and requirements. For more information regarding the encroachment permit process, please contact Mr. Steve Senet at (805) 549-3206 or visit the Department's Website at <http://www.dot.ca.gov/hq/traffops/developserv/permits/>. *CMD*

Thank you for the opportunity to review and comment on the Initial Study / Proposed Mitigated Negative Declaration. If you have any questions, please do not hesitate to call me at (805) 549-3099 or e-mail [jennifer.calate@dot.ca.gov](mailto:jennifer.calate@dot.ca.gov).

Sincerely,

JENNIFER CALATÉ  
Associate Transportation Planner  
District 5 Development Review Coordinator



**Response to Comments for the Aptos Transmission Main Relocation Project  
Initial Study/Mitigated Negative Declaration**

**March 25, 2009**

**State Water Resources Control Board Comments**

#	State Water Resources Control Board Comment	EDAW Response
1	Federal cross-cutting regulations must be addressed and analyzed in the CEQA document.	The regulatory requirements, permits and approvals are addressed on page 5 of the IS/MND. The project impacts that are subject to federal cross-cutting regulations are addressed throughout the Environmental Checklist section beginning on page 16.
2	State if mitigation is necessary if larval burrows are found during the surveys and include any applicable mitigation in the IS/MND.	According to Mitigation Measure Bio-1.1, if work occurs within 100 feet of the field south of McGregor Drive and East of New Brighton Road, then pre-construction surveys for either adult Ohlone tiger beetle or larval burrows shall be conducted by a <i>qualified biologist</i> . Therefore, Mitigation Measure Bio-1.2 applies to larval burrows as well as the adult Ohlone tiger beetle. The mitigation measure now states, "If adult Ohlone tiger beetles or their larval burrows are found to be present, any work within 100 feet of their habitat shall require full-time monitoring by a qualified biologist and shall be conducted between January and April when adults are active and can be readily observed above ground."
3	On page 55, Mitigation Measure Bio-5.1 incorrectly identifies USFWS as "USWFS."	"USWFS" is removed from the mitigation measure entirely.
4	For Mitigation Measure Bio-5.1 on page 55, provide suggested timing for construction activities near Aptos Creek in addition to the mitigation measure's existing requirement for consultation with NMFS and USFWS.	Mitigation Measure Bio-5.1 now states, "Timing of horizontal directional drilling under Aptos Creek shall be limited from Labor Day to the first day of significant rainfall after October 15 <sup>th</sup> ."
5	On page 55 for Mitigation Measure Bio-5.2, describe the elements of the frac-out contingency plan.	The Frac-out Contingency Plan for Horizontal Directional Drilling (HDD) for the Aptos Transmission Line Project will be included as Appendix G in the IS/MND.
6	For Mitigation Measure Bio-5.7 on page 55, approximate the distance vehicles will be moved away from the creek prior to refueling and lubrication.	The final sentence of Mitigation Measure Bio-5.7 now states, "Vehicles will be moved at least 50 feet away from the creek prior to refueling and lubrication."
7	Mitigation Measure Hydro-1 on page 84 is not mitigation. Change Mitigation Measure Hydro-1 to include specific feasible actions that will minimize or avoid potential impacts to water quality and reduce these impacts to less than significant.	The Erosion Control Plan and Storm Water Pollution Prevention Plan (SWPPP) are requirements for a Section 401 Water Quality Certification. Because compliance with laws, statutes, and regulations is not mitigation, the reference to Section 401 Water Quality Certification has been removed from the mitigation measure. Nevertheless, the measures stated in the Erosion Control Plan and SWPPP are mitigation and include specific feasible actions, such as the cleanup, storage and disposal of materials. When implemented by the Santa Cruz County Sanitation District (District), these mitigation measures will ensure that water quality and waste discharge is less than significant.
8	Include a flood map where the Project will be located in relation to the flood zones.	A flood map, including the location of the project, will be incorporated as Figure 12 in the IS/MND.
9	Describe the County's consultation process with the DFG for state listed	In April 2008, the DFG, the District, and EDAW attended a field visit to discuss possible methods for fish protection during HDD

	species.	operations under Aptos Creek. Suzanne Deleon of DFG recommended that the District develop a Frac-out Contingency Plan for fish protection and provided a list of other possible mitigation measures. On October 14, 2008, a Notification of Streambed Alteration was submitted to the DFG. The Notification addressed the California tiger salamander ( <i>Ambystoma californiense</i> ), state candidate for listing as endangered; the California brown pelican ( <i>Pelecanus occidentalis californicus</i> ), state listed endangered; the bank swallow ( <i>Riparia riparia</i> ), state listed threatened; and numerous species that are California species of special concern.
10	Clarify whether the County is requesting that the State Water Board initiate consultation, or whether the USACE will be the lead federal agency regarding federal cross-cutters.	The USACE is the lead federal agency for the Federal Endangered Species Act. Currently, the USACE is completing Section 7 consultation the NMFS and has completed consultation with the USFWS. On February 17, 2009, the USFWS issued a letter of concurrence (# 81440-2009-I-0119) that the proposed project will not likely adversely affect the western snowy plover or the tidewater goby and its critical habitat (enclosed).
11	Confirm if the County is requesting the State Water Board act as the lead federal agency for purposes of a Section 106 consultation with the SHPO.	The District has requested that the State Water Board serve as the lead agency for Section 106 consultation.

#### California Department of Transportation Comments

#	Caltrans Comment	EDAW Response
1	Insure that the new sewer line is constructed at least two feet away from any of the Department's culverts that it crosses.	The District will adhere to the requirement.
2	Any temporary signage placed within the State's right-of-way must be prepared by a registered Civil Engineer.	The District will adhere to the requirement.
3	Any work completed in the State's right of way will require an encroachment permit.	The District will adhere to the requirement.

**Draft Response to the California Department of Transportation Comments for the Aptos Transmission Main Relocation Project IS/MND**

**March 18, 2009**

#	State Water Resources Control Board Comments	EDAW Response
1	Insure that the new sewer line is constructed at least two feet away from any of the Department's culverts that it crosses.	The Applicant will adhere to the requirement.
2	Any temporary signage placed within the State's right-of-way must be prepared by a registered Civil Engineer.	The Applicant will adhere to the requirement.
3	Any work completed in the State's right of way will require an encroachment permit.	The Applicant will adhere to the requirement.

POSSIBLE CLOSURE PERIODS FOR BIOTIC RESOURCES -- APTOS TRANSMISSION LINE CONSTRUCTION

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

OHLONE TIGER BEETLES  
ADULT ACTIVE PERIOD

MONARCH BUTTERFLY

MONARCH BUTTERFLY  
ROOSTING/OVERWINTERING PERIOD

NESTING SEASON  
PASSERINE/NON-PASSERINE LAND BIRDS

NESTING SEASON

WESTERN SNOWY PLOVER  
NESTING SEASON  
WESTERN SNOWY PLOVER

TIDE WATER GOBY LOCATED UPSTREAM  
TIDE WATER GOBY ACTIVE  
TIDE WATER GOBY NOT ACTIVE  
TWG ACTIVE

PRESENCE OF --  
STEEL HEAD

STEEL HEAD

8 POSSIBLE BAT SPECIES  
MATERNITY ROOSTS  
8 POSSIBLE BAT SPECIES

STATE PARKS WORK BAN MEMORIAL DAY TO LABOR DAY

WET WEATHER RESTRICTION ON WORK  
BELOW HIGH WATER MARK OR MEAN HIGH TIDE

WET WEATHER RESTRICTION ON WORK  
BELOW HIGH WATER MARK OR MEAN HIGH TIDE

\*Tidewater Goby are generally present all year, but their active season is early and late summer. They are likely to be located further upstream in Aptos Creek after the beach berm is breached because they are poor swimmers and will want to avoid any wave action at the mouth of Aptos Creek. These dates are from the FWS letter of concurrence and EDAW fisheries biologist's knowledge.

Aptos Creek Restrictions  
Beach Restrictions  
Aptos Creek and Beach Restrictions

Frac-Out Contingency Plan for Horizontal Directional Drilling for  
the Aptos Transmission Line Project

Aptos, Santa Cruz County, California



Prepared for:  
Harris and Associates

EDAW | AECOM

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September 2, 2008

Frac-Out Contingency Plan for Horizontal  
Directional Drilling for the Aptos  
Transmission Line Project, Santa Cruz  
County, CA

*The information provided in this document is intended solely for the use and benefit of Harris & Associates, Inc.*

*No other person or entity shall be entitled to rely on the services, opinions, recommendations, plans or specifications provided herein, without the express written consent of EDAW, 2099 Mt. Diablo Blvd., Suite 204, Walnut Creek, CA 94596.*

## TABLE OF CONTENTS

1.0	INTRODUCTION AND PROJECT DESCRIPTION.....	1
1.1	OVERVIEW AND PURPOSE .....	1
1.2	PROJECT DESCRIPTION .....	1
1.3	SITE DESCRIPTION AND EXISTING CONDITIONS .....	5
2.0	HDD TECHNIQUE.....	5
2.1	PILOT HOLE INSTALLATION PROCESS .....	6
2.2	REAMING AND SWABBING PROCESSES .....	6
2.3	PULLBACK PROCESS .....	6
3.0	POTENTIAL MODES OF HDD FAILURE.....	7
3.1	FRAC-OUT DURING HDD OPERATIONS .....	7
3.2	OTHER MODES OF FAILURE DURING PILOT HOLE INSTALLATION PROCESS .....	7
3.3	OTHER MODES OF FAILURE DURING REAMING AND SWABBING PROCESSES.....	7
3.4	OTHER MODES OF FAILURE DURING PULLBACK PROCESS .....	7
4.0	HDD FAILURE PREVENTION AND MITIGATION .....	7
4.1	MITIGATION DURING PILOT HOLE INSTALLATION PROCESS.....	9
4.2	MITIGATION DURING REAMING AND SWABBING PROCESSES .....	9
4.3	MITIGATION DURING PULLBACK PROCESS .....	10
5.0	FRAC-OUT FAILURE AND MITIGATION.....	10
5.1	FRAC-OUT PREVENTION.....	10
5.1.1	<i>Design</i> .....	10
5.1.2	<i>Construction</i> .....	10
5.2	MONITORING FOR FRAC-OUTS .....	10
5.2.1	<i>Pump Pressure</i> .....	10
5.2.2	<i>Circulation Rate</i> .....	11
5.2.3	<i>Ground Surface Inspection</i> .....	11
5.2.4	<i>Surface Water Inspection</i> .....	11
5.2.5	<i>Special Safety Considerations</i> .....	11
5.3	RESPONSE TO A FRAC-OUT .....	11
5.4	UNCONTROLLABLE FRAC-OUTS.....	13
6.0	HDD FAILURE AND ABANDONMENT CRITERIA .....	13
7.0	REFERENCES .....	14



## LIST OF FIGURES

Figure 1. Project Location .....	3
Figure 2. Segments to be Installed Using HDD .....	4
Figure 3. Frac-out Prevention and Mitigation .....	8

## LIST OF TABLES

Table 1. Prevention and Mitigation for HDD Failure.....	9
Table 2. Frac-out Response Equipment.....	11
Table 3. Frac-out Notations .....	13

## 1.0 INTRODUCTION AND PROJECT DESCRIPTION

### 1.1 Overview and Purpose

The Santa Cruz County Sanitation District (District) Aptos Transmission Line delivers sewer flows from several gravity subsystems to the East Cliff Pump Station. Since its construction in 1979, the Aptos Transmission Line has experienced structural failures in multiple segments. To alleviate problems caused by the structural failures, approximately 3.5 miles of sewer lines are scheduled by the District to be replaced along with improvements to existing pump stations, replacement of two existing pump stations, and construction of two new pump stations. Existing sewer lines that are circumvented will either be removed or abandoned, and an existing pump station and associated restroom facility, will be demolished. The project will be completed in two phases. While much of the project will use the open trench method of pipe laying, one segment will be installed using the jack and bore method, and two segments of the line will be installed using Horizontal Directional Drilling (HDD).

HDD operations have a potential to release drilling fluids into the surface environment through fractured bedrock, into surrounding soils and eventually to the surface, referred to as frac-outs. Drilling fluids consist mainly of a bentonite clay-water mixture, and are not classified as toxic or hazardous substances, however it can potentially have an adverse impact on species and habitat if released into sensitive environments such as creeks, wetlands, or other waterways. This Frac-Out Contingency Plan (FCP), has been prepared in compliance with the permitting requirements laid out by the California Department of Fish and Game (DFG) and National Marine Fisheries Service (NMFS), and establishes operational procedures and responsibilities for prevention, containment, and clean-up of frac-outs associated with the proposed HDD segments of the Aptos Transmission Line Project, Santa Cruz County, California. All personnel responsible for the work must adhere to this plan during the directional drilling process. The objectives of this plan are to minimize the potential for frac-outs, provide timely detection, response and notification in the case of frac-out occurrence, and avoid impacts to environmentally sensitive resources.

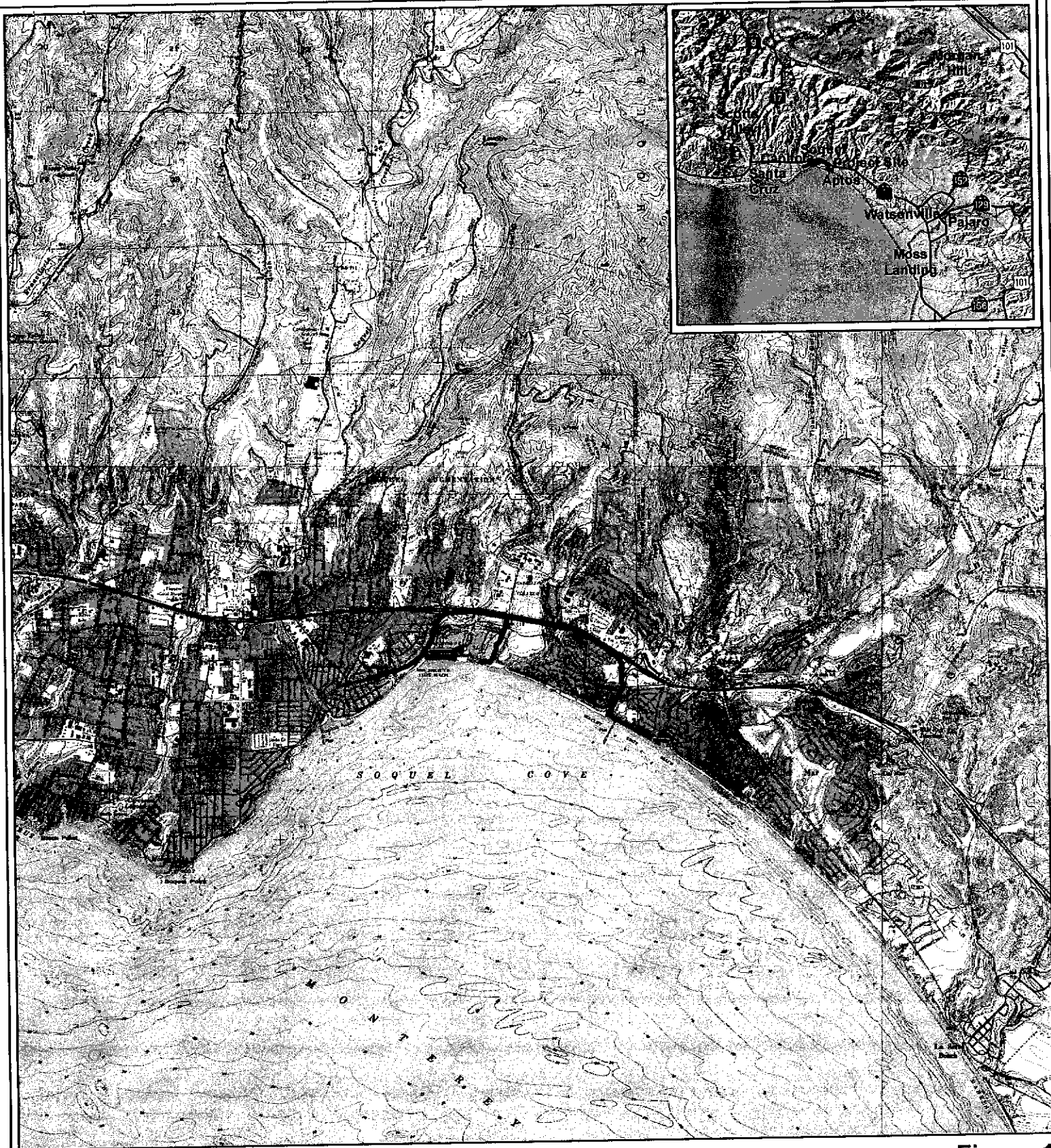
### 1.2 Project Description

The Aptos Transmission Line extends from the Rio Del Mar Pump Station in the southeastern portion of the District, to the East Cliff Pump Station in the northwest, with a series of pumping stations placed along the alignment, and follows roadways and skirts beach areas (Figure 1). The project area includes an existing 24-inch force main, running from Rio Esplanade (Aptos Esplanade) Pump Station westward to the town of Capitola.

Phase one of the project will consist of the construction of a new 20-inch force main, a new 18-inch force main, new pump stations at Tannery Gulch and Potbelly Beach, and new facilities at New Brighton Beach State Park, including two pump stations and two force mains. The 20-inch force main will start on Park Avenue and connect into the pre-existing system that continues into Capitola. This main will be approximately 12,350 linear

feet and will be installed in an open trench. The 18-inch force main will be installed simultaneously in a shared trench with the 20-inch force main, and will be approximately 10,340 linear feet in length. At New Brighton Beach State Park, a stretch of 4-inch force main will be installed from the campground to the day-use parking area using HDD.

Phase two of the project will consist of the construction of a new 18-inch and 20-inch force main, an 18-inch slip-lined force main, conversion of an existing pump station to a manhole, installation of a new pump station, and improvements to an existing pump station. The 18-inch and 20-inch mains, and a 3-inch electrical conduit, will be installed beneath Aptos Creek using HDD. The two mains may be installed at the same HDD crossing location if feasible.

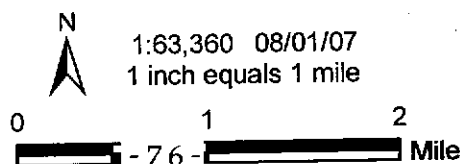


**Figure 1**

*Location of the Project Site*  
**Aptos Transmission Main Relocation Project**  
**City of Aptos**

Aptos, Santa Cruz County, California

- Project Site
- HDD Segments



This document provided for the sole use of Harris & Associates. USGS quadrangles from MapTech Terrain Navigator (2001). This document not intended for detailed design work.

S:\Projects\Harris\Aptos Transmission Line\Graphics\GIS\Site Location 080107.mxd

**EXHIBIT.COM**  
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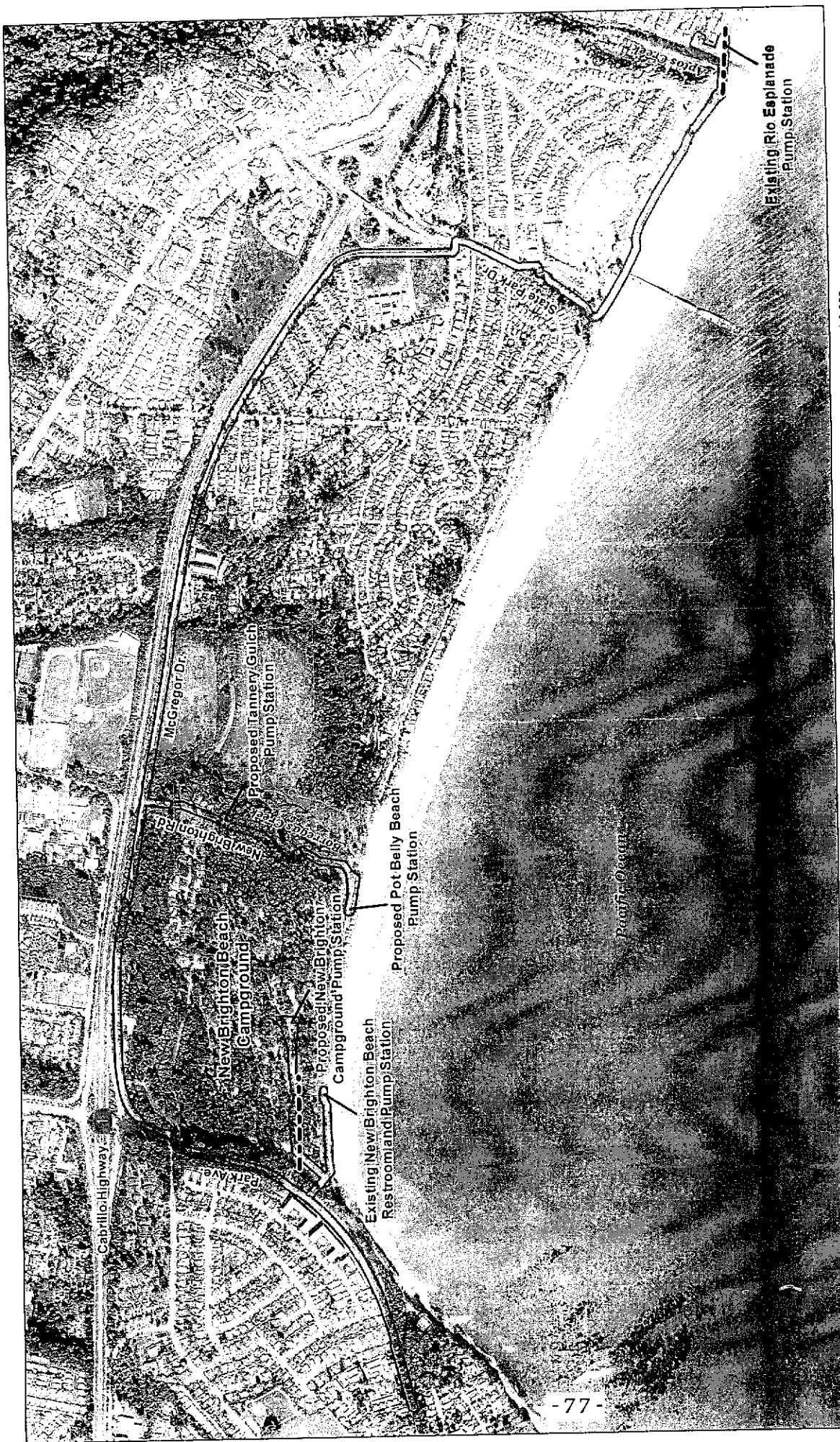
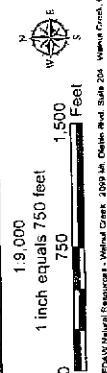


Figure 2. Segments to be Installed Using HDD  
Aptos Transmission Main Relocation Project  
Aptos, Santa Cruz County, California

Projection: CA State Plane III NAD 83 Orthographic AirPhoto USA (2027)

HDD Segments  
at New Brighton Beach State Park and Aptos Creek

Study Boundary





### 1.3 Site Description and Existing Conditions

The Aptos Transmission Line Project site is located within the Tannery Gulch, Borregas Creek, and Aptos Creek watersheds, and has topography varying from gentle to steep slopes ranging in elevation between sea level and 160 feet above sea level. The landscape is comprised of coastal strand, coastal bluff, steep drainages, and graded residential subdivisions. Two separate segments of the project site will be constructed using HDD; the New Brighton Beach State Park during Phase I, and Aptos Creek during Phase II. Soils located within the areas constructed using HDD consist primarily of Tierra-Watsonville complex 15 to 30 percent slopes (USDA 2007) at the New Brighton Beach State Park, and Elder sandy loam 0 to 9 percent slopes, with some Beaches and Elkhorn sandy loam 2 to 9 percent slopes at Aptos Creek.

Within the two portions of the project area that will involve the HDD, several vegetation types are present, including Central Coast riparian scrub community, northern coastal bluff scrub, and eucalyptus woodlands. Aptos Creek is a concrete-lined channel, with a sandy bottom within the HDD project area, and lacks riparian or aquatic vegetation, backwater, pool, cobble, or riffle habitat immediately upstream. Special-status plants are not expected to occur within the study area (EDAW 2008). Special-status wildlife species that have a potential to occur within the project boundaries include the monarch butterfly (*Danaus plexippus*), California brackishwater snail (*Tryonia imitator*), Tidewater goby (*Eucyclogobius newberryi*), Central California Coast ESU steelhead (*Oncorhynchus mykiss irideus*), western pond turtle (*Actinemys* (= *Clemmys*) *marmorata*), nesting birds, and roosting bats. Several avoidance measures are being employed to protect these species during construction including pre-construction surveys for special-status species, and the mitigation and monitoring measures outlined in this FCP as part of the permitting requirements laid out by CDFG and NMFS.

### 2.0 HDD TECHNIQUE

HDD is a method of pipeline installation which limits surface disturbance to the pipeline right of way (ROW) to the entrance and exit points of the HDD. Because the extent of direct disturbance is limited, this method is preferable to the traditional open trench method in areas where the disturbance to the ROW would be particularly problematic, including areas that contain sensitive biological resources such as creeks, wetlands, or habitat for special-status plants and animals, or areas where open trenches would be prohibitively disturbing or destructive to existing infrastructure.

The process of installing a pipeline using HDD involves several pieces of specialized equipment: a drill rig fitted with connectable drill-stems usually measuring in 20-foot lengths and a mud shaker or mixing tank. The mud shaker prepares and recycles the drilling mud, or drilling fluid, which is made up primarily of a combination of water and bentonite, a non-toxic clay derived from the alteration of volcanic ash. The drilling fluid acts to lubricate the drill, coat the borehole, and carry cuttings back to the surface.

Installation of a pipeline using HDD consists of three distinct processes, or steps; installation of the pilot hole; incremental reaming of the pilot hole followed by swabbing the borehole; and pipe pullback. Each of these steps is discussed in detail below.

## **2.1 Pilot Hole Installation Process**

The first step to installation of a pipeline using HDD is the drilling of a pilot hole. The pilot hole is drilled along a predetermined alignment, with entry and exit points that have been determined using traditional survey methods. The drill head is usually tracked using an electronic system that includes a package contained within the pilot drill string near the cutting head, which can be monitored using an above ground hand held detector. One system that is often used is the Tensor Tru-Tracker®. As the head of the drill is tracked, adjustments can be made to the drill pathway.

The drill rig and shaker will be set up and an entry pit measuring approximately 10 feet square will be dug for the entry point. This pit will allow for circulation of drilling mud and cuttings to flow from the borehole to the shaker for recycling into the drill stem. The pilot hole, usually a 9-7/8-inch diameter bore, is installed below the proposed crossing, using a rotary cutting head, lubricated with drilling fluid which is pumped into the pilot hole via the annulus of the drill stem. This fluid also acts to suspend and carry the drilled cuttings to the surface and forms a crust on the walls of the borehole, providing additional stability and integrity. The installation of the pilot hole is closely monitored for information regarding the penetration rate and confirmation of geotechnical strata, so that the reaming and swabbing process can be fine-tuned.

## **2.2 Reaming and Swabbing Processes**

Reaming of the pilot hole begins at the exit point where a reamer head is attached to the end of the drill stem. The drill stem is then pulled back through the pilot hole from the exit point towards the entry point. The reaming tip enlarges the hole as it passes through. This is often done several times with incrementally larger reamers being passed back and forth through the borehole.

Following the reaming process the borehole is swabbed to clean out the remaining soil cuttings and prepare the borehole for the pipe. When reaming and swabbing is complete, the swab is removed from the drill stem at the exit hole, so that the pipe may be attached to it.

## **2.3 Pullback Process**

Once the borehole is at the desired diameter to accommodate the pipe, a reinforced pullhead is attached to the end of the pipe, and the pipe is pulled into the borehole using the drilling rig. The pipe is usually filled with enough water to compensate for the potential of the pipe floating in the drilling fluid.

### **3.0 POTENTIAL MODES OF HDD FAILURE**

#### **3.1 Frac-out During HDD Operations**

A frac-out, hydraulic fracturing of the geologic substrate resulting in a release of drilling fluid, can occur when there is pressurization of the drill hole beyond the containment capabilities of the soil material. Loss of drilling fluid can also occur via fissures in the ground that allow drilling fluid to easily seep, or escape, outside of the confines of the borehole. Frac-outs are most likely to occur as the drill head passes. This can be indicated by a drop in the pressure of the drilling fluids or a decrease in fluid and cutting returns at the entry point. This drop in pressure can be observed prior to the actual release of drilling fluid at the surface, and if action is immediately taken, the frac-out can be prevented.

#### **3.2 Other Modes of Failure During Pilot Hole Installation Process**

Several factors can influence failure of the pilot hole installation process. Improperly maintained equipment can lead to mechanical failure. Loss of borehole integrity can cause the walls of the borehole to collapse onto the drill stem, resulting in increased friction and potentially leading to mechanical failure. The drill head may diverge from its intended path due to interference with the tracking equipment caused by magnetic interference or an inability to properly place the surface tracking equipment.

#### **3.3 Other Modes of Failure During Reaming and Swabbing Processes**

During reaming and swabbing failure can be caused by a loss of integrity of the borehole, resulting in collapse. During the reaming process, injection of large volumes of drilling fluid can result in unintended caverns being carved out, leading to instability of the borehole walls. Should collapse occur, friction on the drill stem could increase to the point of mechanical failure.

#### **3.4 Other Modes of Failure during Pullback Process**

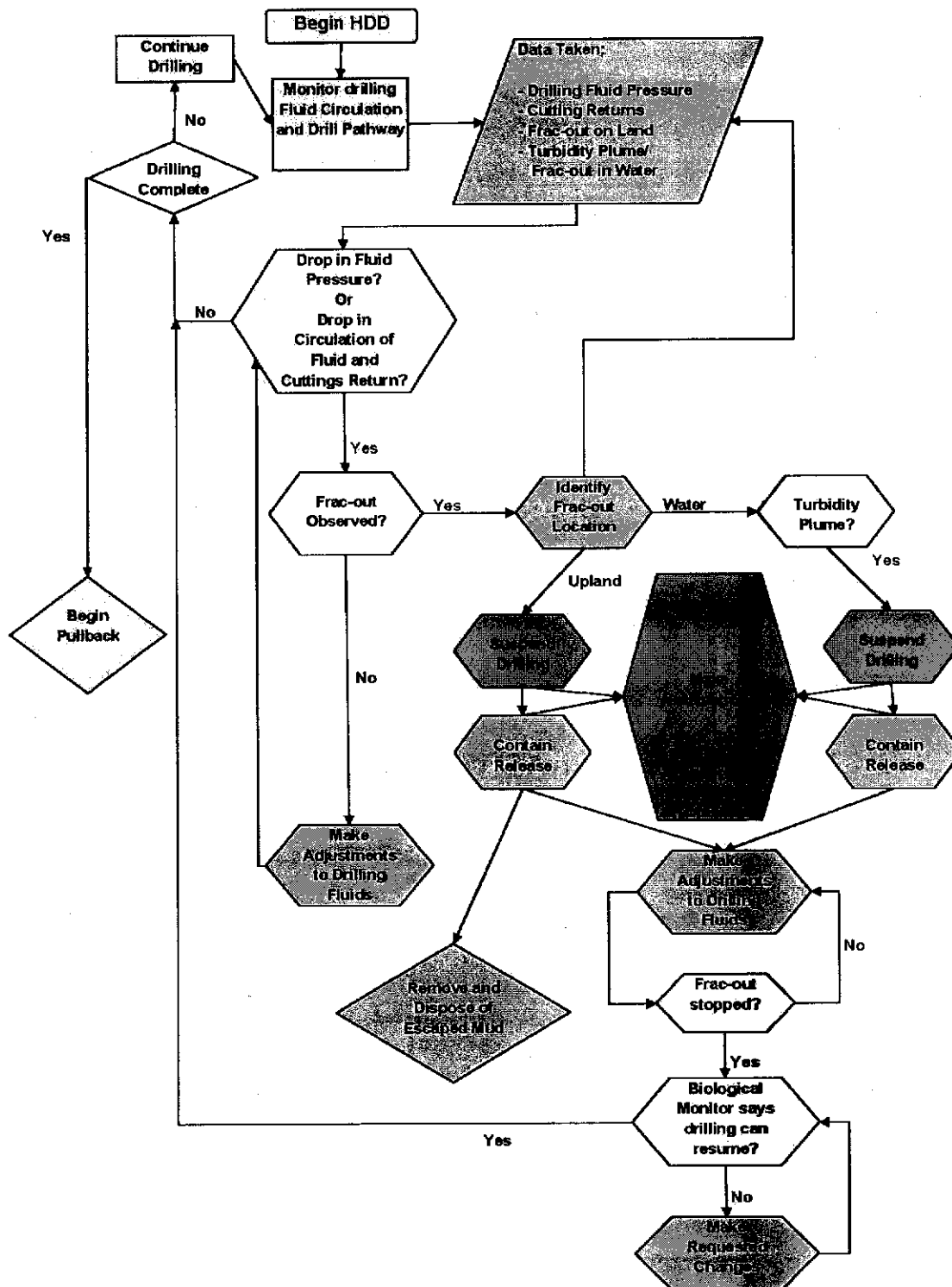
During the pullback process failure could occur if the pipe does not successfully pull through the hole due to insufficient space in the bore hole, high friction, or wall failure.

### **4.0 HDD FAILURE PREVENTION AND MITIGATION**

Methods for preventing or mitigating for failure, prior to complete HDD failure are discussed below, and outlined in the following flow chart (Figure 3).



Figure 3. Frac-out Prevention and Mitigation



**Table 1. Prevention and Mitigation for HDD Failure**

Pilot Hole Installation	Reaming and Swabbing	Pipe Pullback
<ul style="list-style-type: none"> <li>• Geological testing: soil samples will be taken and a frac-out potential determined.</li> <li>• Drilling fluid and cutting circulations will be monitored.</li> <li>• Deviations will be immediately corrected via pullback and re-direction of drill bit.</li> </ul>	<ul style="list-style-type: none"> <li>• Monitor pump pressure to maintain circulation of drilling fluid and cuttings.</li> <li>• In case of wall collapse, remove reamer and re-attach drill bit to re-drill hole.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure drilling rig has adequate power to pull weight of pipe and drill stem.</li> <li>• Maintain neutral buoyancy of pipe during pullback.</li> </ul>

#### **4.1 Mitigation During Pilot Hole Installation Process**

Prior to implementation of the HDD pilot hole installation, several steps can be taken to prevent failure. Soil samples will be taken along the crossing path to identify any geological weaknesses that may exist subsurface. The information gleaned from these samples will be used in planning the specifics of the HDD. Commercially available HDD design software can be used to model the potential for frac-out given the geology, anticipated borehole diameter and drilling fluid consistency.

Characteristics of the drilling fluid and cuttings will be monitored for signs of circulation failure, or inadequate caking on the borehole walls. If a loss of circulation is identified, the HDD operator can make adjustments to the fluid consistency or drilling rate to facilitate caking and maintain adequate lubrication on the drill stem. Additionally, the HDD operator can partially pull back in the borehole, to ream out the pilot hole and flush collected cuttings before they create a barrier in the borehole.

Should the pilot hole deviate from the intended pathway, the HDD operator can pull back and correct the deviation. If the deviation is significant, the abandoned section of the pilot hole can be grouted with bentonite, and the path can be redrilled.

#### **4.2 Mitigation During Reaming and Swabbing Processes**

As the HDD operator reams the bore hole, the pump pressure can be adjusted to maximize the opportunity for cuttings to circulate while maintaining the integrity of the borehole walls. Should

the borehole suffer a wall collapse, the HDD operator can remove the reamer and re-attach the drill bit head to re-drill the hole.

#### **4.3 Mitigation During Pullback Process**

Ensure that the drilling rig used for pull back has sufficient power to **pull** the weight of the drill stem and the pipeline through the borehole. It is also critical that the HDD operator knows the density of the drilling fluids, weight of the pipe, and the volume of water needed to maintain neutral buoyancy.

### **5.0 FRAC-OUT FAILURE AND MITIGATION**

Procedures for preventing, monitoring and responding to frac-outs are outlined in the following sections.

#### **5.1 Frac-out Prevention**

##### **5.1.1 Design**

As part of a preventative approach to frac-outs when conducting HDD operations, several steps are recommended. First, geotechnical investigations will be undertaken to be used in planning the final bore route and specific equipment to be used. Secondly, the bore will be planned for a depth that is likely to discourage potential frac-outs from occurring based upon the soils present along the path of the bore.

##### **5.1.2 Construction**

During the drilling activities, the contractor will have a full-time on-site mud engineer that can monitor the drilling fluid circulation and returns, and make adjustments to the drilling fluid properties as needed. Based upon the recommendations of the drilling mud engineer, a pace for drill advancement will be set to ensure sufficient time for cutting and fluid circulation without unnecessary threat of plugging. Should plugging occur, the rate of advance will be appropriately increased, decreased, stopped or reversed until the plug has been cleared. Drilling pressure will be kept at the minimum level necessary to maintain circulation, and if circulation decreases, adjustments to fluid properties, drill head advancement rate and reaming diameter will be attempted before drilling pressure is increased.

#### **5.2 Monitoring for Frac-outs**

HDD operations will be monitored for the occurrence of frac-outs using the following methods.

##### **5.2.1 Pump Pressure**

Pump pressure will be monitored by the on-site mud engineer and recorded into a field data log prior to each joint connection. Any changes or fluctuations in the pressure will be investigated immediately as they may be indicative of a frac-out.

### 5.2.2 Circulation Rate

The on-site mud engineer will continuously monitor the flow rate of the drilling fluid circulation and volume of returns and record the data prior to each joint connection or following a change in return rate. If the pumping rate differs from the return rate, a frac-out may have occurred.

### 5.2.3 Ground Surface Inspection

An approved monitor will visually inspect the path of the HDD during drilling operations for indications of a frac-out. When the path of the HDD crossed beneath upland habitat, the monitor will follow the drill head as closely as possible, watching for escape of any drilling mud to the surface.

### 5.2.4 Surface Water Inspection

An approved monitor will visually inspect the path of the HDD during drilling operations for indications of a frac-out. When the path of the HDD crosses beneath Aptos Creek, the monitor will watch for a turbidity plume.

### 5.2.5 Special Safety Considerations

HDD activities that could result in frac-out will only be conducted during day-time hours so as to maximize the potential that any frac-out that may occur is identified and appropriately responded to in a timely manner. A detailed Health and Safety Plan outlining specific hazards and needed personal protective equipment will be prepared and made available to all on-site personnel.

## 5.3 Response to a Frac-out

Prior to the onset of construction, it is important that all necessary response equipment be located on site, in an accessible location for quick deployment. The response equipment will include all of the items listed in the frac-out response chart (Table 2).

**Table 2. Frac-out Response Equipment**

Straw or hay bales, sandbags, straw wattles	Shovels
Stakes for securing bales	Silt fence
Vacuum-truck	Light towers (for clean-up after dark if needed)
Water sampling equipment	Soils sampling equipment
Boat and appropriate PPE (for frac-out into Aptos Creek)	Pre-arranged approved drilling fluid disposal site

When a drop on drilling pressure, or other frac-out indicator, is identified, the following steps will be taken in a timely manner:

- 1) Forward progress of the drill will be immediately suspended, however the HDD equipment will continue to run to prevent the borehole integrity from being compromised and resulting in collapse.
- 2) The area will be immediately surveyed for any sign of a frac-out.
- 3) If a frac-out is identified, it will be immediately contained.
- 4) If the frac-out occurred in flowing water, the biological monitor will monitor the extent of the drilling fluid plume and watch for signs of distressed or dying fish.
- 5) Turbidity monitoring will occur both upstream and downstream from any plume associated with the inadvertent release of drilling fluid, following federal, state and local guidelines. Samples will be taken immediately after the frac-out, and at 1 and 2 hours post release.
- 6) If the frac-out occurs in the upland, the frac-out will be contained by creating a berm or barrier around the release to prevent it from spreading.
- 7) Notifications, as outline below, will occur and the impacts, if any, to sensitive resources or special-status species will be identified.
- 8) The frac-out will be thoroughly documented.
- 9) Once the frac-out has been contained and the on-site biological monitor has given the approval to resume forward drilling, adjustments to the drilling fluid, or rate will be made, and drilling will resume in a conservative manner, with special attention paid to any additional escape of drilling fluid or new frac-out locations.
- 10) Should the frac-out resume, additional adjustments will be made until the frac-out is no longer occurring.
- 11) The spilled drilling fluid will be immediately cleaned up via shovels or a vacuum truck and disposed of at a pre-determined location.
- 12) No drilling fluid will be left on the ground.
- 13) Following the completion of HDD activities, a summary report detailing any frac-outs that occurred, events leading up to the occurrences, measures taken, impacts from the release, mitigation for the release, and agency contacts.

**Table 3. Frac-out Notations**

In the event of a frac-out the following contact persons will be notified immediately.

Agency	Contact Person	Phone Number	Permit Number
Biological Consultant			
County of Santa Cruz			
CDFG			
RWQCB			
NMFS-NOAA			
USFWS			

#### **5.4 Uncontrollable Frac-outs**

In the event that a frac-out occurs and is not controllable, or containable due to volume or rate, HDD activities will immediately cease, and depending upon the stage of the drilling at the time of the frac-out, the HDD operator can either plug the hole near the fracture with a heavyweight non-toxic material, or back out of the borehole, cap it and start over on a new hole. To plug the fissure, pump non-toxic sealers into the drill hole, let set for an appropriate amount of time depending upon the sealer selected, and then resume HDD activities in a conservative manner. If the fissure or fracture cannot be plugged, back the drill out, and fill the original hole with bentonite and cuttings under low pressure so as to not create additional releases, then resume HDD activities in a conservative manner. If the original drill path cannot be reused, plug the original borehole with bentonite and cuttings under low pressure so as to not create additional releases, sealing the top 5 feet with grout. Plan a new alternative location, and once approved by all involved parties, move forward with HDD operations in new location. If HDD attempts fail, then crossing will need to be constructed using an alternative method.

#### **6.0 HDD FAILURE AND ABANDONMENT CRITERIA**

HDD installation will be considered a failure if there are two unsuccessful attempts during pilot hole drilling, one unsuccessful attempt during reaming, or one unsuccessful attempt during pullback.

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