

**CALIFORNIA COASTAL COMMISSION**

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Staff:	Tiffany S. Tauber
Staff Report:	November 30, 2001
Hearing Date:	December 14, 2001
Commission Action:	

**STAFF REPORT: REGULAR CALENDAR**

APPLICATION NO.:	<b>1-01-040</b>
APPLICANT:	<b>HUMBOLDT BAY MUNICIPAL WATER DISTRICT</b>
AGENTS:	Winzler & Kelly Consulting Engineers
PROJECT LOCATION:	Across Mad River Slough and adjoining lands at the north end of Humboldt Bay, west of Highway 255, Humboldt County (APNs 506-171-01, 506-181-01)
PROJECT DESCRIPTION:	Seismic upgrade of an existing water pipeline trestle crossing over Mad River Slough including the removal of 62 existing timber piles and the installation of 64 new steel piles.
GENERAL PLAN DESIGNATION:	Natural Resources; Agricultural Exclusive
ZONING DESIGNATION:	Natural Resources with Archaeological, Coastal Wetlands, Beach and Dune combining zones; Agricultural Exclusive with Flood Area & Transitional Agricultural Lands combining zones

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LOCAL APPROVALS RECEIVED:	None Required
OTHER APPROVALS RECEIVED:	Humboldt Bay Harbor, Recreation and Conservation District
OTHER APPROVALS REQUIRED:	(1) Army Corps of Engineers; (2) Water Quality Certification; (3) Department of Fish and Game 1603 Stream Alteration Agreement
SUBSTANTIVE FILE DOCUMENTS:	(1) Humboldt County Local Coastal Program; (2) Mitigated Negative Declaration prepared by Winzler & Kelly Consulting Engineers (May 1999); (3) <i>The Distribution of Spartina densiflora and two rare salt marsh plants in Humboldt Bay 1998-1999</i> (U.S. Fish and Wildlife Service, 2001)

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## SUMMARY OF STAFF RECOMMENDATION:

Staff recommends approval with special conditions of the proposed seismic upgrade of the Humboldt Bay Municipal Water District water pipeline crossing over Mad River Slough. The proposed project involves the installation and partial removal of numerous piles in wetlands. The staff recommends that this approval be subject to conditions that ensure the protection of coastal wetlands, water quality, and public access.

The Humboldt Bay Municipal Water District (District) proposes to upgrade an existing pipeline crossing over Mad River Slough to decrease the potential for failure of the pipeline during a seismic event. The project involves removing 62 existing timber piles and installing 64 new steel piles, 62 of which would be located in wetlands. The pipeline would be repaired by the District to ensure the structural integrity of the existing public water distribution facility. Therefore, the proposed fill would be undertaken by a public agency in pursuit of its public service mission. In addition, the project would not result in an increase in capacity of the amount of water used, result in an expansion of the District's service area, or the formation of a new special district. The pipeline itself would not be replaced. Rather, the project would only improve the structural integrity of the supporting bents of the existing pipeline crossing structure. Therefore, the improvements to the pipeline crossing is incidental to the existing public water distribution facility. Thus, the project constitutes an incidental public service purpose for which filling and dredging in wetlands is allowed under Section 30233(a)(5).

The pipeline crosses several environmentally sensitive habitat areas including salt marsh, mud flats, brackish marsh, and grazed seasonal wetland (pasture). Depending on the manner in which the proposed project is conducted, the project could have potential adverse impacts to (i) mudflat habitat, (ii) eelgrass, (iii) salt marsh, (iv) grazed seasonal wetlands, (v) brackish marsh and freshwater wetland, (vi) water quality, (vii) tidewater goby, and (viii) sensitive salmonid species.

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To ensure that the proposed project does not result in adverse impacts to wetland habitat values or water quality consistent with the resource protection provisions of Section 30233 and 30231, staff recommends nine special conditions.

Special Condition No. 1 requires the applicant to submit for the review and approval of the Executive Director a salt marsh vegetation monitoring plan to ensure the salt marsh area disturbed by project construction revegetates as expected following completion of the project. Special Condition No. 2 requires the project to be performed and completed during the non-rainy season between June 1 and October 15 to minimize adverse impacts to sensitive wetland habitats and tidewater gobies. Special Condition No. 3 requires that access routes within wetlands, including salt marsh, mud flats, and seasonal grazed wetlands (a) use heavy synthetic mats or other acceptable non-toxic material that can be readily laid down along equipment access routes and (b) be the minimum width necessary to allow movement of equipment to and from the project site. Special Condition No. 4 requires the applicant to submit for the review and approval of the Executive Director, an equipment staging and debris stockpiling plan to ensure that all staging areas and stockpiles are located in upland areas and outside of environmentally sensitive habitat areas.

Special Condition No. 5 sets forth construction responsibilities including that: (a) no construction debris or waste be placed or stored where it may be subject to entering coastal waters; (b) any and all debris resulting from construction activities be removed from the project site within 10 days of project completion and in accordance with the construction debris disposal plan required by Special Condition No. 9; (c) no machinery or construction materials not necessary for project construction be allowed at any time in Mad River Slough; and (d) all floating debris into coastal waters outside of the containment booms required pursuant to Special Condition No. 7(b) and all non-buoyant debris discharged into coastal waters be recovered by divers as soon as possible after loss. Special Condition No. 6 requires the applicant to submit a hazardous materials management plan for the review and approval of the Executive Director. Special Condition No. 7 sets forth standards for the removal of the timber piles including that (a) the timber piles proposed for removal be removed to a level at least one foot below the level of the mudline in wetland areas; (b) containment booms be installed around all piles to be removed within the slough and floating debris within the containment boom be removed by the end of each work day; (c) silt curtains be deployed around each pile to be removed within the slough prior to removal to minimize water turbidity and dispersal of disturbed bottom sediments; and (d) all piles be removed from the slough only during outgoing tides to minimize the transport of sediments to upstream oyster beds. Special Condition No. 8 requires the applicant to submit for the review and approval of the Executive Director written evidence that the proposed steel pile treatment is acceptable to the California Department of Fish & Game for use in marine waters and that no creosote treated piles be placed in Mad River Slough. Special Condition No. 9 requires the applicant to submit a debris disposal plan for the review and approval of the Executive Director.

To ensure protection of public access along the slough channel during construction of the project, the staff recommends Special Condition No. 10. This condition requires that at all times

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during project construction, and at all stages of the tide at and above the mean lower low water (MLLW), a passage of at least 20 feet wide in the channel of Mad River Slough be kept clear of all obstructions including floating and submerged structures, equipment, and suspended overhead hazards to allow for continued access through the project area by small boats and recreational water craft and that the passage be clearly marked with floating buoys.

To ensure the protection of archaeological resources, staff recommends Special Condition No. 11 that requires the applicant to comply with all recommendations and mitigation measures contained in the cultural resources investigation report prepared for the project and further requires that if an area of cultural deposits is discovered during the course of the project all construction must cease and a qualified cultural resource specialist must analyze the significance of the find prior to commencing work and a supplementary archaeological plan must be submitted for the review and approval of the Executive Director.

The project also requires review and approval by the Department of Fish and Game, U.S. Fish and Wildlife Service, and the U.S. Army Corps of Engineers. To ensure that the project ultimately approved by the Corps, the U.S. Fish and Wildlife Service, and the Department of Fish and Game is the same as the project approved by the Commission, staff recommends Special Condition Nos. 12, 13, and 14 which require the applicant to submit to the Executive Director evidence of these agencies' approval of the project prior to the commencement of work. The conditions require that any project changes resulting from these other agency approvals not be incorporated into the project until the applicant obtains any necessary amendments to the coastal development permit.

As conditioned, staff has determined that the proposed development would be consistent with the Chapter 3 policies of the Coastal Act.

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## STAFF NOTES:

### 1. Standard of Review

The portion of the proposed development that is the subject of the application to the Commission is located over and adjacent to the Mad River Slough within submerged areas, areas subject to tidal action, and areas shown on State Lands Commission maps over which the state retains a public trust interest. Thus, the proposed development is within the Commission's retained coastal development permit jurisdiction and the standard of review for the permit application is the Chapter 3 policies of the Coastal Act.

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## I. MOTION, STAFF RECOMMENDATION AND RESOLUTION:

The staff recommends that the Commission adopt the following resolution:

### Motion:

I move that the Commission approve Coastal Development Permit No. 1-01-040 pursuant to the staff recommendation.

### Staff Recommendation of Approval:

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

### Resolution to Approve the Permit:

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

## II. STANDARD CONDITIONS: See Attachment A.

## III. SPECIAL CONDITIONS:

### 1. Salt Marsh Vegetation Monitoring Plan

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for review and written approval of the Executive Director, a salt marsh vegetation monitoring plan prepared by a qualified botanist with experience in designing statistical vegetation sampling methods. The plan shall comply with and/or contain the following provisions:

(1) A pre-construction vegetation survey of the 8,160 square feet (0.2 acres) of salt marsh area to be disturbed shall be completed during the season immediately following project construction and shall include:

(a) cover and abundance during the observed peak bloom of Humboldt Bay owl's clover (approximately May);

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- (b) cover and abundance during the observed peak bloom of Point Reyes bird's beak (approximately June); and
  - (c) cover and abundance of all other native and non-native species during either May or June.
- (2) A post-construction vegetation survey of the 8,160 square feet (0.2 acres) of salt marsh area to be disturbed shall be completed the year immediately following project construction and shall include:
  - (a) cover and abundance during the observed peak bloom of Humboldt Bay owl's clover (approximately May);
  - (b) cover and abundance during the observed peak bloom of Point Reyes bird's beak (approximately June); and
  - (b) cover and abundance of all other native and non-native species during either May or June.
- (3) Adverse impacts to salt marsh vegetation shall be measured as the difference between the pre-construction and post-construction estimates of native vegetation cover. If post-construction survey results indicate that native vegetation cover is less than pre-construction native vegetation cover, then the area shall be monitored at least twice annually for two years following project completion for the recolonization of native salt marsh species and for the presence of invasive exotic plant species;
- (4) Within two years of the completion of the project, the area of salt marsh disturbed by project construction shall have an extent of native vegetation cover equal to or greater than the pre-construction extent of native vegetation cover at the impacted site;
- (5) Invasive, exotic plant species, including *Spartina densiflora* shall be abated from this area during the two year monitoring period. The preferred method of exotic plant abatement is hand removal.
- (6) On October 1 of each year of the monitoring period, the permittee shall submit, for the review and approval of the Executive Director, a monitoring report detailing the plant species and their abundance and cover found within the affected area and the measures taken that year to remove invasive exotic plant species. Photographs of the affected area taken before and after that year's semi-annual work to remove invasive plants shall be submitted with the report. The final report must be prepared by a qualified professional and evaluate whether the objective of pre-construction coverage of the disturbed area with native species within two years has been achieved. If the report indicates that natural recolonization of native plants has been unsuccessful, in part, or in whole, the applicant shall submit for the review and approval of the Executive Director a native plant revegetation program to achieve the objective. The revised revegetation program shall require an amendment to this

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coastal development permit unless the Executive Director determines that no amendment is legally required.

## 2. Timing of Construction

To minimize adverse impacts to sensitive wetland habitats and tidewater gobies, all work must be performed and completed during the non-rainy season between June 1 and October 15.

## 3. Equipment Access in Environmentally Sensitive Habitat Areas

To protect sensitive wetland habitats from disturbance and long term degradation (i.e. either through compaction and vegetation removal), access routes within wetlands, including salt marsh, mud flats, and seasonal grazed wetlands shall be subject to the following requirements: (a) heavy synthetic mats or other acceptable non-toxic material that can be readily laid down along equipment access routes shall be used within these habitat areas and immediately removed following construction; and (b) access roads shall be the minimum width necessary to allow movement of equipment to and from the project site.

## 4. Equipment Staging and Debris Stockpiling Plan

A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the permittee shall submit a plan for the review and approval of the Executive Director that demonstrates that all construction debris stockpiling areas and equipment staging area will be located outside of environmentally sensitive habitat areas.

1. The plan shall demonstrate that:

- (a) construction debris shall not be stockpiled within environmentally sensitive habitat areas as generally depicted on Exhibit No. 5;
- (b) construction equipment shall not be staged within environmentally sensitive habitat areas as generally depicted on Exhibit No. 5.

2. The plan shall include a site map that depicts, at a minimum, the following components:

- (a) location and limits of the staging area(s)
- (b) location and limits of the debris stockpiling area(s)

3. The plan shall include evidence demonstrating that all necessary regulatory approvals and property interests have been obtained for use of each of the proposed stockpiling and staging areas.

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- B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

## 5. Construction Responsibilities

The permittee shall comply with the following construction-related requirements:

- (a) No construction debris or waste shall be placed or stored where it may be subject to entering coastal waters;
- (b) Any and all debris resulting from construction activities shall be removed from the project site within 10 days of project completion and in accordance with the construction debris disposal plan required by Special Condition No. 9;
- (c) No machinery or construction materials not necessary for project construction shall be allowed at any time in Mad River Slough;
- (d) All floating debris into coastal waters outside of the containment booms required pursuant to Special Condition No. 7(b) and all non-buoyant debris discharged into coastal waters shall be recovered by divers as soon as possible after loss.

## 6. Hazardous Materials Management Plan

- A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the review and written approval of the Executive Director, a plan for the use and management of hazardous materials on the site to reduce impacts to water quality. The plan shall be prepared by a licensed engineer with experience in hazardous material management.

1. The plan, at a minimum, shall provide for the following:

- (a) Equipment fueling shall occur only during daylight hours in designated fueling areas located in upland areas and otherwise outside of environmentally sensitive habitat areas;
- (b) Oil absorbent booms and/or pads shall be on site at all times during project construction. All equipment used during construction shall be free of oil and fuel leaks at all times;



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- (c) Provisions for preparing and pouring cement in a manner that will prevent discharges of wet cement into coastal waters including, but not limited to, placement of catch basins, mats or tarps beneath the construction area;
  - (d) Provisions for the handling, cleanup and disposal of any hazardous or non-hazardous materials used during the construction project including, but not limited to, cement, epoxy coating, equipment fuel and oil;
  - (e) Provisions for the containment of rinsate from the cleaning of equipment, including cement mixing equipment, and methods and locations for disposal off-site. Containment and handling shall be in upland areas and otherwise outside of any environmentally sensitive habitat area;
  - (f) Provisions for submittal of the Hazardous Materials Management Plan to the Department of Fish and Game;
  - (g) A site map detailing the location(s) for hazardous material storage and equipment fueling and maintenance.
- B. The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.
7. Pile Removal
- A. Removal of the timber piles shall be conducted according to the following requirements:
- (1) The timber piles proposed for removal shall be removed to a level at least one foot below the level of the mudline in wetland areas;
  - (2) Containment booms shall be installed around all piles to be removed within the slough and floating debris within the containment boom shall be removed by the end of each work day;
  - (3) Silt curtains shall be deployed around each pile to be removed within the slough prior to removal to minimize water turbidity and dispersal of disturbed bottom sediments; and
  - (4) All piles shall be removed from the slough only during outgoing tides to minimize the transport of sediments to upstream oyster beds.
- B. No less than twice yearly, once during the spring and once during the winter, the applicant shall conduct a monitoring visit to the site to determine if any piles have become exposed.

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Monitoring reports shall be submitted to the Executive Director twice yearly for five years, following each visit, by May 15 in the spring and by January 15 in the early winter. If the monitoring reports indicate that any of the piles have become exposed, the applicant shall submit for the review and approval of the Executive Director, a plan to lower the pile below the mudline or remove the pile within 60 days of when the pile is exposed. The proposed plan to remedy the exposed piles shall require an amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

## 8. Steel Pile Coating Limitations

PRIOR TO ISSUANCE of the coastal development permit, the applicant shall submit, for the review and approval of the Executive Director, written evidence that the proposed aluminum-based epoxy coating or alternatively proposed pile treatment is acceptable to the California Department of Fish & Game. The applicant shall use only the approved coating. No creosote treated piles shall be placed in the waters of Mad River Slough, including temporary piles used during construction.

## 9. Debris Disposal Plan

- A. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit for the review and approval of the Executive Director a plan for the disposal of construction-related debris including the disposal of creosote-treated timbers. The plan shall describe the manner by which the material will be removed from the construction site and identify all debris disposal sites that will be utilized. The plan shall demonstrate that all disposal sites are in upland areas where construction-related debris from the project may be lawfully disposed.
- B. The permittee shall undertake development in accordance with the approved plan. Any proposed changes to the approved plan shall be reported to the Executive Director. No changes to the approved plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

## 10. Channel Access During Construction

At all times during project construction, and at all stages of the tide at and above the mean lower low water (MLLW), a passage of at least 20 feet wide in the channel of Mad River Slough shall be kept clear of all obstructions including floating and submerged structures, equipment, and suspended overhead hazards to allow for continued access through the project area by small boats and recreational water craft. The passage shall be clearly marked with floating buoys.

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## 11. Archaeological Resources

- A. The applicant shall comply with all recommendations and mitigation measures contained in the cultural resources investigation report prepared for the project by Roscoe & Associates Archaeological Consulting, dated April, 1999. The applicant shall also comply with the following monitoring conditions during construction.
- B. If an area of cultural deposits is discovered during the course of the project, all construction shall cease and shall not recommence except as provided in subsection (c) hereof. A qualified cultural resource specialist shall analyze the significance of the find.
- C. An applicant seeking to recommence construction following discovery of the cultural deposits shall submit a supplementary archaeological plan for the review and approval of the Executive Director.
  - (i) If the Executive Director approves the Supplementary Archaeological Plan and determines that the Supplementary Archaeological Plan's recommended changes to the proposed development or mitigation measures are de minimis in nature and scope, construction may recommence after this determination is made by the Executive Director.
  - (ii) If the Executive Director approves the Supplementary Archaeological Plan but determines that the changes therein are not de minimis, construction may not recommence until after an amendment to this permit is approved by the Commission.
- C. The applicant shall undertake development in accordance with the approved supplemental Archaeological Plan. No changes to the approved supplementary archaeological plan shall occur without a Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

## 12. U.S. Fish and Wildlife Service Approval

PRIOR TO COMMENCEMENT OF CONSTRUCTION, the permittee shall provide to the Executive Director a copy of any incidental take permit or other approval issued by the U.S. Fish & Wildlife Service or evidence that no permit or permission is required. The applicant shall inform the Executive Director of any changes to the project required by the U.S. Fish & Wildlife Service. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

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## 13. Department of Fish and Game Approval

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, the applicant shall submit a copy of any necessary Section 1603 Streambed Alteration Agreement or other approval required by the Department of Fish and Game for the project or evidence that no approval is required. The applicant shall inform the Executive Director of any changes to the project required by the Department of Fish and Game. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

## 14. Army Corps of Engineers Approval

PRIOR TO COMMENCEMENT OF CONSTRUCTION, the permittee shall provide to the Executive Director a copy of a permit issued by U.S. Army Corps of Engineers, a letter of permission, or evidence that no permit or permission is required. The applicant shall inform the Executive Director of any changes to the project required by the U.S. Army Corps of Engineers. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

## 15. Assumption of Risk, Waiver of Liability and Indemnity Agreement

- A. By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from seismic activity; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.
- B. **PRIOR TO ANY CONVEYANCE OF THE PROPERTY THAT IS THE SUBJECT OF THIS COASTAL DEVELOPMENT PERMIT**, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director incorporating all of the above terms of subsection (a) of this condition. The restriction shall include a legal description of the applicant's entire parcel. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

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- C. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit a written agreement, in a form and content acceptable to the Executive Director, incorporating all of the above terms of this condition.

## IV. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

### 1. Site & Project Description

The proposed project involves structural improvements to the northernmost of two existing Humboldt Bay Municipal Water District (HBMWD) water pipeline trestle crossings over Mad River Slough located north of Highway 255, approximately four miles west of the city of Arcata in Humboldt County (Exhibit Nos. 1 & 2). Mad River Slough flows southward from the Arcata Bottoms into Arcata Bay (the north end of Humboldt Bay). The two pile-supported pipeline crossings are located approximately one half mile upstream of the slough's outlet to Arcata Bay.

The southernmost pipeline was constructed in 1960 and carries a single 42-inch-diameter industrial water pipeline. The northern pipeline, proposed to be repaired under this permit, was constructed in 1966 and carries a 42-inch-diameter industrial water pipeline and a 27-inch-diameter domestic water pipeline. The pipelines convey both the industrial water supply to the pulp mills on the Samoa Peninsula and the domestic water supply to the Samoa Peninsula and southern parts of Eureka. The pipelines represent the only supply of potable and fire-suppression water to these areas.

#### **Site Description**

The waters of Mad River Slough in the location of the pipeline crossing are tidally influenced and the surrounding terrain is relatively flat. On the east side of the slough are pasturelands of the Arcata Bottoms, which are typically grazed seasonal wetlands bisected by tightly meandering channels that drain into the slough. The eastern end of the pipeline crossing is located on the Jackson Ranch, an active dairy farm. HBMWD holds an easement to cross the Jackson Ranch via a gravel road to the east end of the pipeline. Pasture vegetation is dominated by non-native grasses including perennial rye (*Lolium perenne*), reed fescue (*Festuca arundinacea*), annual bluegrass (*Poa annua*), and creeping bent (*Agrostis stolonifera*). Other species common throughout the pasture habitat include soft rush (*Juncus effusus*), bird's foot trefoil (*Lotus corniculatus*), white clover (*Trifolium repens*), and curly dock (*Rumex crispus*).

The pipeline crosses a tightly meandering former tributary to the slough just east of the main slough channel, via a causeway with two culverts. The outlet of this tributary is blocked by an existing dike along the east side of the slough. The portion of the channel between the causeway and the dike has formed an oxbow channel known as "Dog Leg Lake." Vegetation in and around Dog Leg Lake includes saltgrass (*Distichlis spicata*), northwestern manna grass (*Glyceria occidentalis*), tufted hairgrass (*Deschampsia cespitosa*), silverweed (*Potentilla anserina*), cow

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clover (*Trifolium wormskioldii*), pickleweed (*Salicornia virginiana*), and meadow foxtail (*Alopecurus genticulatus*). A narrow band of salt marsh vegetation also occurs on the east bank directly below the man-made dike. The margins of the lake form a restricted brackish marsh adjacent to bents #1 and #2 as a result of the remnant slough channel cut off by the construction of the dike. Vegetation is limited to a narrow (10 feet or less) band of alkali bulrush, salt grass, and brass buttons immediately adjacent to the open water.

Between the dike and the channel of Mad River Slough is an approximately 250-foot-wide strip of tidal mud flats. The mud flats are submerged beneath 2 to 3 feet of water at high tide (MHW), and are exposed at low tide (MLW). A topographic break at mean sea level (NGVD) forms the edge of the slough channel. The slough channel drops steeply to a bottom elevation of 20 feet below mean sea level (NGVD). The water in the channel varies from 17 feet deep at mean low tide (MLW) to 22 feet deep at mean high tide (MHW). The bottom of the slough is organic-rich mud, similar to the mudflats, underlain by soft clays and fine sand. The channel is 340 feet wide at MLW. Commercial oyster rafts operate in the channel approximately 100 feet north of the pipeline. Mad River Slough also provides potential habitat for state and federally listed salmonid species and the federally listed tidewater goby (*Eucyclogobius newberryi*).

The tidal area west of the slough channel is approximately four feet above mean sea level (NGVD) and is only inundated during higher than average tides. This 425-foot-wide area is vegetated with salt marsh species. An existing 22-foot-wide access road bisects this salt marsh area and has been historically used by the HBMWD to access the pipeline for maintenance purposes. Vegetation associated with the salt marsh includes cord grass (*Spartina densiflora*), pickleweed, saltgrass, marsh rosemary (*Limonium Californicum*), gum plant (*Grindelia stricta*), sand spurry (*Spergularia bocconii*), Humboldt Bay owl's clover (*Castilleja ambigua* ssp.), and Point Reyes bird's beak (*Cordylanthus maritimus* ssp. *palustris*). Point Reyes bird's beak and Humboldt Bay owl's clover are listed as rare and endangered by the California Native Plant Society.

Immediately adjacent to the west of the salt marsh habitat is a narrow band of freshwater marsh. Dominant vegetation includes slough sedge (*Carex obnupta*), salt rush (*Juncus leseucii*), baltic rush (*Juncus balticus*), silverweed, curly dock, bird's foot trefoil, creeping bent, wax myrtle (*Myrica Californica*), Hooker's willow (*Salix hookeriana*) and brass buttons (*Cotula coronopifolia*).

## Project Description

Recent inspections on the structural condition of the pipeline crossing have identified rot and decay on the timber pile caps and pilings and determined that the trestle support structure is very vulnerable to failure in the event of a strong earthquake. The proposed project involves replacing the piles and pile caps that support the pipeline crossing to reduce its seismic vulnerability and minimize the likelihood of catastrophic pipeline failure in the event of a large magnitude earthquake. The pipeline itself is in good condition and would remain in place without interrupting service during the proposed repair of the supporting structure.

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The existing structure consists of 29 pile bents located 40 feet apart. Each bent consists of approximately 14-inch-diameter timber piles supporting a 14-foot-long timber pile cap and the pipelines rest in steel saddles on top of each pile cap. The existing bents would be removed and replaced with new steel piles and concrete caps, leaving the original pipes in place. The new bents would be spaced 40 feet apart, the same spacing as the existing bents, with each new bent offset approximately six feet from the existing bents. (see Exhibit Nos. 3 & 4)

Two of the 29 existing bents are supported by four piles each and the remaining 27 are each supported by two piles. The new structure would have the same number of bents (29), but 26 of the new bents would be supported by two piles each and three of the bents would be supported by four piles each (in an "A-frame" configuration). Thus, a total of 64 new steel piles would replace the existing 62 timber piles. The new steel piles would be 12.75 inches in diameter and would be driven 50 to 70 feet into the substrate to approximately 70 feet below mean sea level. After each new bent is complete, saddles constructed of 3/8" steel plates would be slipped into the space between the bent and existing pipe. The saddles will be jacked into position against the pipe with leveling nuts, then connected to the pile cap by bolts which screw down into the cap. After the new bents are installed, the existing timber piles would be cut off one to two feet below the mudline and removed. The piles cannot be pulled out in their entirety because the overhead pipelines are an obstacle to their removal.

The proposed project is expected to take between 90 and 180 days to complete and construction is expected to commence by June, 2002. The applicants propose that all work to be done in the slough channel below the mean high water elevation would be performed between June 1 and October 15. If work in this area is not complete within this time period, construction in the slough channel will cease over the winter months and resume the following June.

## **Construction Access**

The pipeline crosses several environmentally sensitive habitat areas including salt marsh, mud flats, brackish marsh, and grazed seasonal wetland (pasture). Construction materials and equipment are proposed to access the site through the pasture partially on a graveled access road on the east, along the old railroad grade and pipeline access road on the west, and up the slough channel by barge. Parking and storage areas would be restricted to upland areas devoid of sensitive vegetation. (see Exhibit No. 5)

## **East Side Access**

An existing cobble and gravel access road across the pasture would be used to access the east side of the pipeline. The road is separated from the grazing area by an electric fence and culverted crossings of the slough tributaries are already in place. The existing gravel road ends after crossing the westernmost slough tributary leaving approximately 500 feet of seasonal grazed pasture to be crossed. The applicant proposes to place temporary mats of timber, steel or plastic along the access corridor through the pasture to support the movement of the crane and pile driver and minimize impacts to wetlands from the heavy equipment. The equipment would operate from mats at one location just east of the dike and north of the pipeline to work on the three to six pile caps it can reach from this area.

### **Channel and Mud Flat Access**

A barge would be brought up the slough to access portions of the pipeline crossing in the slough channel and surrounding mudflats. The barge may have to be segmented to fit between the existing piles of both crossings and the bridges to the south. Transporting equipment on the barge is limited by the overhead clearance under the Highway 255 and railroad bridges, and the southern pipeline crossing (approximately 12 feet at low tide) and by the 30-foot-wide pile spacing on the railroad bridge. Therefore, the crane and pile driving equipment would be loaded onto the barge from the end of the access road on the west side of the slough. The proposed project includes a temporary barge loading dock to be constructed at the end of the HBMWD access road on the west side of the slough channel, just north of the pipeline. The temporary dock would be constructed of two to six piles driven into the mudflats at the edge of the slough channel. Timber mats would be placed between the piles and the barge, forming a temporary dock for the crane to drive on and off the barge. Additional temporary piles may also need to be installed to secure the barge against the tides. Any temporary piles would be removed completely upon completion of the project.

### **West Side Access**

An existing road on the west side of the slough would provide access for the construction equipment and materials to this project area. The road was constructed through the dunes and salt marsh during the original pipeline construction, which was completed in 1966. The road is currently used by HBMWD for maintenance access. Improvements may be needed to make the existing access road capable of supporting the crane and repeated trips by materials supply trucks. To provide the additional support, the applicant proposes to place temporary timber or steel matting on the road surface to support the equipment. The existing width of the road (22 feet) would be maintained.

## **2. Filling and Dredging in Coastal Wetlands**

The proposed project involves removing 62 approximately 14-inch-diameter timber piles and installing 64 approximately 13-inch-diameter steel piles, 62 of which would be located in wetlands, to construct a new, structurally sound support trestle for an existing water pipeline. The placement of new piles within wetlands is a form of wetland fill under Section 30108.2 of the Coastal Act. Coastal Act Section 30233 allows filling and dredging in wetlands only where there is no feasible less environmentally damaging alternative, where feasible mitigation measures have been provided to minimize adverse environmental effects, and where the project is limited to one of eight specified uses. Additionally, Coastal Act Section 30231 requires the biological productivity and quality of coastal waters, wetlands, and estuaries to be maintained and, where feasible, restored.

Section 30231 of the Coastal Act states:

*The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the*



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*protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

Section 30233(a) of the Coastal Act states, in applicable part:

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

...

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

...

*(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary...*

The above policies set forth a number of different limitations on what development projects may be allowed in coastal wetlands. For analysis purposes, the limitations can be grouped into four general categories or tests. These tests are:

- a. that the purpose of the filling, diking, or dredging is for one of the eight uses allowed under Section 30233;
- b. that the project has no feasible less environmentally damaging alternative;
- c. that feasible mitigation measures have been provided to minimize adverse environmental effects; and
- d. that the biological productivity and functional capacity of the habitat shall be maintained and enhanced where feasible.

a. **Allowable Use for Dredging and Filling of Wetlands**

The first test set forth above is that any proposed filling, diking or dredging in wetlands must be for an allowable purpose as specified under Section 30233 of the Coastal Act. Section

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30233(a)(5) allows filling and dredging for incidental public service purposes. The project involves constructing a new support trestle crossing involving the installation of 64 new steel piles, 62 of which are located within wetlands. The pipeline would be repaired by the District to ensure the structural integrity of the existing public water distribution facility. Therefore, the proposed fill would be undertaken by a public agency in pursuit of its public service mission. In addition, the project would not result in an increase in capacity of the amount of water used, result in an expansion of the District's service area, or the formation of a new special district. The pipeline itself would not be replaced. Rather, the project would only improve the structural integrity of the supporting bents of the existing pipeline crossing structure. Therefore, the improvements to the pipeline crossing is incidental to the existing public water distribution facility. Thus, the project constitutes an incidental public service purpose for which filling and dredging in wetlands is allowed under Section 30233(a)(5).

Therefore, as conditioned herein, the project is consistent with the use limitations of Section 30233 on filling and dredging in wetlands, as the project is for an incidental public service purpose.

## **b. Project Alternatives**

The second test set forth by the Commission's fill policies is that the proposed fill project must have no feasible less environmentally damaging alternative. Commission staff and the applicant have considered the various identified alternatives and determined that there is no feasible less environmentally damaging alternative to the project as conditioned. Alternatives that have been identified include (1) placing the pipelines underground, (2) locating the single pipeline on the double pipeline crossing, and (3) no project. As explained below, each of these alternatives are infeasible and/or do not result in a project that is less environmentally damaging than the proposed project.

### **Underground Pipeline Crossing**

The applicant considered placing the existing double pipelines underground using directional boring or trenching rather than repairing the over-slough, pile-supported trestle crossing. An underground alignment would extend about 1,500 feet from the grazed seasonal wetlands on the east to the sand dunes on the west. Directional drilling would involve drilling a hole for the length of the pipelines, filling it with bentonite mud, and pulling the pre-assembled pipelines through the hole. This alternative would eliminate the need for new permanent fill in wetlands to support the pipeline, as the pipelines would be located below these areas. The proposed new fill in wetland habitat associated with the project as proposed by the applicant consists of the new piles that would be driven to better support the pipeline. As the amount of wetland habitat affected by the proposed new piles themselves would be relatively small, somewhat less than 64 square feet of area in total, and as this loss of habitat would be offset by the gain of a slightly larger amount of wetland habitat from the removal of the existing piles, the principal impacts of the project as proposed on wetland habitat occur from construction activities and gaining access to the work areas for construction equipment, rather than from the introduction of new permanent fill. These construction impacts are discussed in detail in Section (c) below on

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mitigation of impacts. The alternative of placing the existing pipeline underground by either directional boring or trenching would not eliminate such construction impacts. Given the age of the existing overhead crossing, condition of its piles, its susceptibility to earthquakes, and possible reuse of the pipe, the alternative of placing the existing pipeline underground would also entail removal of the existing overhead crossing. Construction impacts for the removal of the crossing would be similar to those associated with the proposed repair and would be in addition to the impacts associated with placing the pipelines underground. Trenching would involve extensive dredging in wetlands for the entire length of the underground pipeline alignment and large quantities of excavated material would require disposal. In addition, all excavations would require shoring and dewatering. Although directional drilling would not involve the kinds of disturbance that trenching would require, directional drilling has its own potential impacts on wetland habitat. The extensive use of bentonite mud in the directional drilling process would create a risk of sedimentation and increased turbidity, which could result in adverse impacts to water quality and sensitive fish species. Therefore, placing the pipelines underground using directional boring or trenching methods would not be a less environmentally damaging feasible alternative.

### **Placing the Single Pipeline on the Double Pipeline Crossing**

The applicants considered replacing the pile bents under the double-crossing proposed to be repaired with heavier and wider bents so that the existing nearby single, 42-inch-diameter pipeline could be added to the double-pipeline crossing. The primary purpose of this alternative would be to reroute the 42-inch-diameter pipeline from the single crossing and add it to the retrofitted double crossing, thus eliminating the need for future retrofit of the single crossing and allow the abandoned single-crossing structure to be removed. This alternative would thus result in less permanent structural fill in Mad River Slough than the proposed project by eliminating one entire trestle crossing.

The construction impacts associated with the retrofit of the double crossing to accept a third pipeline would be similar to that of the proposed project. However, this alternative would involve impacts to environmentally sensitive habitat areas associated with removal of the single crossing, in addition to the construction-related impacts associated with the proposed project. Furthermore, the applicants indicate that the single crossing does not need to be repaired or replaced at this time and thus, the alternative involving its removal is cost prohibitive for the District. Therefore, moving the single pipeline to the retrofitted double crossing and removing the single crossing pile-supported structure is not a less environmentally damaging feasible alternative.

### **No Project**

The no project alternative would involve not repairing the pipeline at all. As the status quo would be maintained, the permanent and construction impacts associated with repairing the pipeline would be avoided. The pipelines of the double-crossing convey both the industrial water supply to the pulp mills on the Samoa Peninsula and the domestic water supply to the Samoa Peninsula and southern parts of Eureka. The pipelines represent the only supply of potable and fire-suppression water to these areas. The existing piles supporting the pipelines are

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at the end of their useful life due to decay and the existing structure is not capable of withstanding a strong earthquake. In the event of a strong earthquake, the water supply needed for fire suppression, as well as drinking water, could be cut off from the Samoa Peninsula and southern Eureka. The water supply line is therefore, considered a critical facility in the event of an earthquake. Failure to maintain the pipeline support structure would be in conflict with the District's mandate to serve the public interest by providing a reliable water supply. The no project alternative would not meet the goals of minimizing the seismic vulnerability of the pipeline trestle to ensure continued water supply distribution to the District's service areas.

Furthermore, allowing the pipeline to deteriorate and collapse in an earthquake could cause greater environmental damage. In such an event, timbers from the crossing structure could pollute the slough area, water pouring from a broken pipeline could scour and erode wetland habitat areas, and public access for boaters along the slough could be cut off. Therefore, the no project alternative is not a less environmentally damaging feasible alternative.

Therefore, the Commission finds that the proposed project as conditioned, involves the least environmentally damaging feasible alternative as required by Section 30233(a).

## **(c) Mitigation of Impacts to Coastal Wetlands, Biological Productivity, and Water Quality**

The third test set forth by Section 30233 is whether feasible mitigation measures have been provided to minimize adverse environmental impacts. The project involves removing 62 pile bents and replacing 64 pile bents in wetland areas. To access the pipeline to perform the removal and installation of the pile bents, heavy equipment is required to access and operate from several sensitive wetland habitat areas. Depending on the manner in which the proposed project is conducted, the project could have potential adverse impacts to (i) mudflat habitat, (ii) eelgrass, (iii) salt marsh, (iv) grazed seasonal wetlands, (v) brackish marsh and freshwater wetland, (vi) water quality, (vii) tidewater goby, and (viii) sensitive salmonid species. The potential impacts and their mitigation are discussed in the following sections:

### **(i) Mudflat Habitat**

The mudflat area below the pipeline crossing is approximately 250 feet across with an approximately 340-foot-wide open slough channel at low tide. The bottom of the slough is organic-rich mud, underlain by soft clays and fine sand. The mudflats adjacent to the low flow channel are submerged beneath two to three feet of water at high tide (MHW), and are exposed at low tide (MLW). The water in the channel varies from 17 feet deep at mean low tide (MLW) to 22 feet deep at mean high tide (MHW). The mudflats in this area provide habitat to benthic invertebrates, which are important prey for many fish and birds in the Humboldt Bay area. Common invertebrates in the shallow mudflat areas in the project vicinity include various species of polychaetes, bivalves, and gastropods.

The proposed project involves the removal of 38 old timber piles from the mudflats and the installation of 38 new steel piles in the mudflats. The applicant is proposing to remove exposed

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portions of the old timber piles by cutting off the piles at least one foot below the mudline. The overhead pipeline is an obstacle that prevents the use of equipment that would be necessary to remove the piles in their entirety. Access to this portion of the project area would be via barge. Construction equipment including a crane and pile driver would be loaded onto the barge from the west side of the slough channel. The barge is expected to set down on the mudflats at low tides while working in this area. The barge would rest on the mudflat only for a period necessary to complete work in a given location and then the barge would be moved to the next station to complete another segment of work. The construction equipment is expected to have an extended reach of approximately 20-30 feet allowing for the installation and removal of three or more pile bents from one operating location, thereby minimizing the locations the barge would need to rest on mudflats. Approximately six to ten temporary piles may be installed to secure the barge in position while working within the channel. All temporary piles would be removed in their entirety following construction.

Staff has consulted with the Department of Fish and Game (DFG) regarding potential impacts to mudflat habitat from the proposed project and the staff of the Department of Fish and Game does not recommend any additional mitigation measures for the impacts to mudflats of the project from those proposed by the applicant. The applicant is proposing to remove the timber piles at least one foot below the mudline, as noted above, as the overhead pipeline is an obstacle to removing them in their entirety. Removing the piles to at least one foot below the mudline would allow the area of the removed pile to silt in and provide habitat to benthic organisms above the broken piles. Furthermore, the tops of the broken piles would silt in to create a seal, thus minimizing the leaching of creosote from the old piles. Additionally, the average diameter of the timber piles to be removed is approximately 14 inches and the diameter of the steel piles to be installed is approximately 12.75 inches. Thus, removing the old, larger timber piles from the mudflats by removing them to a depth at least one foot below the mudline would result in a net reduction of structural fill in the mudflat area of approximately 34-square-feet. To ensure that the piles are removed as proposed, Special Condition No. 7 requires that the timber piles proposed for removal be removed to a level at least one foot below the mudline. The Commission also finds that mudflat habitat would be protected by removing the piles below the mudline so long as the District effectively monitors the site and responds quickly to remove or lower any piles that might become exposed. Although Mad River Slough is not exposed to direct ocean wave attack and does not receive a significant influx of winter runoff that might scour the channel bottom, the slough is still subject to tidal action which has the potential to change the channel bottom over time. To ensure that the piles to be removed remain at least one foot below the mudline in the slough channel, Special Condition No. 7 also requires that the applicant conduct a monitoring visit to the site twice a year for five years following completion of the project to determine if any piles have become exposed. Monitoring reports are required to be submitted to the Executive Director following each visit. If the monitoring reports indicate that any of the piles have become exposed, the applicant is required to submit, for the review and approval of the Executive Director, a plan to remove or lower the pile at least one foot below the mudline within 60 days from it becoming exposed. The proposed plan to remedy the exposed piles shall require an amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

(ii) Eelgrass

Long, narrow eelgrass beds exist adjacent to the low flow channel along Mad River Slough and extend below the pipeline crossing. Based on observations by the Department of Fish and Game, eelgrass is growing around the base of four existing timber piles located on the edge of the channel that would be removed as part of the proposed project. The new steel piles would be installed at an offset of approximately six feet from the existing piles. Therefore, it is possible that four of the new steel piles would be located in areas where eelgrass is currently growing and displace an amount of eelgrass equivalent to the area occupied by the base of the four new piles. The steel piles are approximately 12.75-inches in diameter. Therefore, the installation of the new piles would displace slightly less than four-square-feet of eelgrass.

The displacement of eelgrass habitat by the new piles would be offset by the removal of the exposed portions of the existing piles located within the eelgrass beds. As noted previously, the applicants propose to remove the piles to a depth of at least one foot below the mudline in the slough channel. Any substrate required to be disturbed to remove the pile to the required depth, would be placed back in the area where the pile would be removed rather than being side-cast in the channel. Over time, additional sediment within the water column can be expected to settle into the depression in the mudflat where the old piles were located. As the mudflat reestablishes itself, eelgrass from the surrounding eelgrass bed is expected to colonize the small area where the old piles protrude from the mudflat. As noted above, the average diameter of the timber piles is approximately 14 inches and the diameter of the steel piles to be installed is approximately 12.75 inches. Therefore, the proposed project would not result in a net decrease of eelgrass habitat or permanent adverse impacts to eelgrass habitat and thus, no further mitigation is required.

(iii) Salt Marsh

A significant area of salt marsh exists on the west side of the Mad River Slough channel in the vicinity of the pipeline crossing. A total of 16 old timber piles would be removed and 16 new steel piles would be installed within the salt marsh area. An existing 22-foot-wide, unimproved access road runs through salt marsh habitat adjacent to the pipeline crossing and would be used to access this portion of the project. The road is vegetated with scattered salt grass, pickleweed, and cord grass. The salt marsh habitat beyond the pipeline crossing and existing access road is relatively undisturbed and provides habitat for a diverse number of salt marsh species, including the dominant pickleweed and scattered salt grass, cord grass, gum plant, sea lavender, jaumea, and saltbush. This area also provides habitat for two rare native salt marsh species including Point Reyes bird's beak (*Cordylanthus maritimus* ssp. *palustris*) and Humboldt Bay owl's clover (*Castilleja ambigua* var. *humboldtiensis*). Both species are listed as rare and endangered by the California Native Plant Society, but are not state or federally listed.

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Salt marsh habitat around Humboldt Bay has been drastically reduced as a result of human impacts, namely the construction of the railroad around the Bay in the early 1900's which resulted in diking and conversion of salt marsh to seasonally flooded agricultural lands (Pickart, 2001). According to the U.S. Fish and Wildlife Service, salt marsh habitat has decreased from approximately 9,000 to 900 acres and the remaining salt marsh has been further degraded by the invasion of introduced dense-flowered cordgrass (*Spartina densiflora*) native to Chile. High-elevation salt marsh around Humboldt Bay, like that at the western edge of the project site, has the highest native species diversity as well as the presence of the two rare plant species.

Both the installation and removal of piles and use of the construction access road would have adverse impacts on salt marsh habitat. As noted previously, the timber piles to be removed are approximately 14-inches in diameter, whereas the new steel piles to be installed are approximately 12.75-inches in diameter. Thus, there would be a slight overall net decrease in the amount of structural fill within the salt marsh. The removal of the existing piles in salt marsh habitat would not alter the soil and natural revegetation is expected to occur rapidly. Thus, the revegetation of the area from where the old piles would be removed would offset the displacement of salt marsh habitat by the new steel piles.

Approximately 8,160 square feet (0.2 acres) of salt marsh would be temporarily affected by construction access. The applicant proposes to place construction mats along the access route through the salt marsh to minimize soil compaction and adverse impacts to sensitive plant species from the operation of construction equipment. The applicant indicates that the impacts would be temporary and would not be expected to affect the current vegetation composition of the salt marsh and the applicant proposes to allow the area to revegetate naturally following construction.

According to the U.S. Fish and Wildlife Service (USFWS), it has been shown that the two rare salt marsh species do occur in disturbed salt marsh and may even benefit from soil compaction. However, USFWS also notes that this benefit, if it occurred, would likely be counteracted by the fact that cord grass (*Spartina densiflora*) is currently invading even high elevation salt marshes around the bay. It has been demonstrated that cord grass is likely to invade more readily in a disturbed area that has not been revegetated with native plants. Therefore, if native vegetation in the project area were adversely impacted, the invasive species may have a greater opportunity to invade the site and displace native salt marsh habitat as well as habitat for the two rare species.

To minimize impacts to salt marsh habitat, the Commission attaches Special Condition No. 3 which requires that (1) heavy synthetic mats or other acceptable non-toxic material that can be readily laid down along equipment access routes be used and immediately removed following construction and that (2) access roads be the minimum width necessary to allow movement of equipment to and from the project site.

In the event that the native plants do not recolonize to the degree expected in the area where the salt marsh habitat would be impacted by project construction, Special Condition No. 1 provides a mechanism for monitoring and restoration of the site with native plants. Special Condition No. 1

requires the applicant to submit, for the review and written approval of the Executive Director, a salt marsh vegetation monitoring plan prepared by a qualified botanist with experience in designing statistical vegetation sampling methods. The plan requires that pre-construction and post-construction vegetation surveys be conducted of the salt marsh area disturbed by the project to estimate cover of all species present including cover estimates of Point Reyes bird's beak, Humboldt Bay owl's clover, and native and non-native species. Adverse impacts to salt marsh vegetation are measured as the difference between the pre-construction and post-construction estimates of native vegetation cover. If post-construction survey results indicate that native vegetation cover is less than pre-construction native vegetation cover, then the area is required to be monitored at least twice annually for two years following project completion for the recolonization of native salt marsh species and for the presence of invasive exotic plant species. Special Condition No. 1 requires that within two years of the completion of the project, the area of salt marsh disturbed by project construction shall have an extent of native vegetation cover equal to or greater than the pre-construction extent of native vegetation cover at the impacted site. To promote the reestablishment of native species, invasive, exotic plant species, including *Spartina densiflora* are required to be abated from this area during the two year monitoring period. Special Condition No. 1 further requires the submittal of monitoring reports for review and approval of the Executive Director detailing the plant species and their abundance and cover found within the affected area and the measures taken that year to remove invasive exotic plant species. If after two years, the final monitoring report indicates that natural recolonization of native plants has been unsuccessful, in part, or in whole, the applicant is required to submit for the review and approval of the Executive Director a native plant revegetation program to establish pre-construction levels of native vegetation cover. The revised revegetation program shall require an amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

As conditioned, the project would not result in any permanent impact to salt marsh habitat and thus, no further mitigation is necessary.

**(iv) Grazed Seasonal Wetlands**

The dominant habitat found on the east side of the project area from the end of the graveled farm road to the eastern anchorage is grazed seasonal wetland. This portion of the project site was originally subject to tidal action, but like much of the land around Humboldt Bay, it was diked off about one hundred years ago and reclaimed for agricultural use. Due to its low elevation, the grazed pastureland is subject to seasonal ponding from rain and runoff and also has a high groundwater table. This habitat is dominated by introduced grasses including red top, velvet grass, Kentucky blue grass, and sweet vernal grass. The wetland vegetation at the site is not particularly abundant or diverse in comparison with other wetland habitats around Humboldt Bay because of its current and historic use as pasture for cattle grazing. Nonetheless, the area does provide some wetland habitat.

Approximately 16,320 square feet (0.4 acres) of seasonally wet pasture on the east side of the pipeline crossing would be affected by construction equipment access. Additionally, two timber



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piles would be removed and two new steel piles would be installed at the eastern end of the pipeline crossing. As noted previously, the timber piles to be removed are approximately 14 inches in diameter, whereas the new steel piles to be installed are approximately 12.75 inches in diameter. Thus, there would be a slight net decrease in structural fill within the grazed seasonal wetlands. The applicants propose to place construction mats, such as timber or steel mats, in the path of heavy equipment to minimize soil compaction and vegetation disturbance in soft or wet areas by distributing the weight of the heavy equipment as it traverses this area. In addition to the use of construction mats for equipment access, impacts to the grazed seasonal wetlands would be further minimized by performing the construction during the dry season when the soils are not saturated. To the extent that the vegetation is disturbed by the proposed development, natural revegetation is expected to occur rapidly.

To ensure that adverse impacts to the wetland are minimized, the Commission attaches Special Condition Nos. 2 & 3. Special Condition No. 3 requires the placement of heavy synthetic mats or other acceptable non-toxic material along equipment access routes through the seasonal wetlands. The construction mats are required to be removed immediately following project construction. Special Condition No. 3 also requires the equipment access corridor to be the minimum width necessary to allow movement of equipment to and from the project site. Special Condition No. 2 requires project construction to be completed between June 1 and October 15, when the wetlands are least sensitive to disturbance and adverse impacts from sedimentation, compaction, and vegetation disturbance would be minimized.

As conditioned, the project would not result in any permanent impact to grazed seasonal wetland and thus, no further mitigation is required.

## (v) Brackish Marsh and Freshwater Wetland

Immediately adjacent to the west of the salt marsh habitat is a narrow band of freshwater marsh. Dominant vegetation includes slough sedge (*Carex obnupta*), salt rush (*Juncus leseucii*), baltic rush (*Juncus balticus*), silverweed, curly dock, bird's foot trefoil, creeping bent, wax myrtle (*Myrica Californica*), Hooker's willow (*Salix hookeriana*) and brass buttons (*Cotula coronopifolia*). A restricted brackish marsh exists on the opposite side of Mad River Slough adjacent to existing pile bents #1 and #2 as a result of a remnant slough channel cut off by the construction of the dike. Vegetation in the brackish marsh is limited to a narrow (10 feet or less) band of alkali bulrush, salt grass, and brass buttons immediately adjacent to the open water.

The two existing piles in the brackish marsh would be removed and two new steel piles would be installed. Four existing piles in the freshwater wetland would be removed and four new steel piles would be installed. No construction equipment would be operated from within either of these habitats. The brackish marsh would be accessed from the grazed seasonal wetland as discussed in section (iv) above and the piles in this area would be removed and installed using a crane from this access location. The freshwater marsh would be accessed from the existing access road on the west side of the pipeline crossing as discussed in section (iii) above and the piles would be removed and installed by using a crane situated on the access road. Therefore,

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there would be no construction-related impacts associated with the brackish marsh and freshwater wetland habitats. As noted previously, the piles to be installed are of smaller diameter than the piles to be removed. The removal of the existing piles at a depth of at least one foot below the mudline in these areas would allow the area of the removed piles to fill with sediment and marsh vegetation to become established above the level of the piles to be removed. Therefore, the project would not result in a net decrease of surface area of brackish marsh and freshwater wetland and thus, no further mitigation is required.

## (vi) Water Quality

The proposed project involves repairing an existing pipeline crossing over Mad River Slough. Potential adverse impacts to the water quality of Mad River Slough could occur in the form of hazardous materials and debris from the construction process entering the slough and increased turbidity.

The use of certain kinds of wood preservatives commonly used to treat piles such as creosote, can lead to adverse impacts to water quality and biological productivity. Contaminants in the wood preservative can potentially leach out of the piles and into the water column where they can be absorbed by fish and other aquatic organisms with potentially adverse consequences. The applicant proposes to replace 62 creosote-treated timber piles with 64 steel piles treated with a corrosion-resistant coating. The applicant anticipates using an aluminum-based epoxy coating that has previously been approved by the Department of Fish and Game for use in marine waters. However, the applicants have indicated that the particular pile treatment may be subject to change based on the availability of the materials prior to construction. To ensure that the steel piles are treated with a coating that is acceptable to the DFG for use in marine waters, the Commission attaches Special Condition No. 8. This condition requires the applicant to submit written evidence that the proposed aluminum-based epoxy coating or alternatively proposed pile treatment is acceptable to the California Department of Fish & Game. Special Condition No. 8 further prohibits the use of creosote-treated piles in the waters of Mad River Slough, including any temporary piles installed during construction.

The water quality of Mad River Slough could also be adversely affected by demolition debris entering the water. The removal of numerous piles would generate a significant amount of debris and the applicants have not identified a debris disposal location for the old creosote-treated piles and other debris generated by the proposed project. To ensure that debris is adequately disposed of in an approved location, the Commission attaches Special Condition No. 9 requiring that prior to issuance of the coastal development permit, the applicant submit for the review and approval of the Executive Director, a plan for the disposal of construction-related debris including the disposal of creosote-treated timbers. The plan must describe the manner by which the material would be removed from the construction site, identify all debris disposal sites that would be utilized and demonstrate that all disposal sites are in upland areas where construction-related debris from the project may be lawfully disposed.

## HUMBOLDT BAY MUNICIPAL WATER DISTRICT

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To ensure that any project debris not subject to immediate disposal be stockpiled in areas outside of environmentally sensitive habitat areas in a manner that does not result in the potential for sediment or other pollutants such as creosote from being entrained in storm water runoff, Special Condition No. 4 requires submittal of a debris stockpiling plan for the review and approval by the Executive Director, showing the location and limits of all debris stockpile areas. Special Condition No. 4 also requires a plan showing the location and limits of equipment staging areas to demonstrate that equipment would not be staged within environmentally sensitive habitat areas where equipment-related fuel and oil could potentially enter coastal waters and wetlands.

Special Condition No. 5 imposes certain construction-related responsibilities including responsibilities for ensuring that : (a) no construction debris or waste shall be placed or stored where it may be subject to entering coastal waters; (b) any and all debris resulting from construction activities shall be removed from the project site within 10 days of project completion and in accordance with the construction debris disposal plan required by Special Condition No. 9; (c) no machinery or construction materials not necessary for project construction shall be allowed at any time in Mad River Slough; and (d) non-buoyant debris discharged into coastal waters shall be recovered by divers as soon as possible after loss. Special Condition No. 7(b) also requires that containment booms be installed around all piles to be removed within the slough and that floating debris within the containment boom be removed by the end of each work day to prevent pieces of broken piles and other construction related debris from permanently entering coastal waters.

The proposed project involves the use of potentially hazardous materials on site near slough waters including fuels and oils associated with construction equipment, epoxy coating for touching up the steel piles, and ready-mix concrete for construction of the pile caps. The applicant has indicated that the contractor would be responsible for preparing a hazardous materials management plan. To ensure that adverse water quality impacts associated with discharges of potentially hazardous materials on site during project construction are minimized, Special Condition No. 6 requires the applicant to submit for the review and approval by the Executive Director, a Hazardous Materials Management Plan. The plan is required to provide for the following: (1) equipment fueling is to occur only during daylight hours in designated fueling areas located in upland areas and otherwise outside of environmentally sensitive habitat areas; (2) oil absorbent booms and/or pads are required to be on site at all times during project construction; (3) all equipment used during construction shall be free of oil and fuel leaks at all times. Additionally, Special Condition No. 6 requires the plan to include provisions for (1) preparing and pouring cement over coastal waters including, but not limited to, placement of catch basins, mats or tarps beneath the construction area to prevent spills or overpours from entering coastal waters; (2) the handling, cleanup and disposal of any hazardous or non-hazardous materials used during the construction project including, but not limited to, cement, epoxy coating, equipment fuel and oil; (3) the containment of rinsate from the cleaning of equipment, including cement mixing equipment, and methods and locations for disposal off site; (4) submittal of the Hazardous Materials Management Plan to the Department of Fish and Game; and (5) a site map detailing the location(s) for hazardous material storage and equipment fueling and maintenance.

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Another potential adverse water quality impact associated with the proposed project is the potential for the suspension of sediments and increased water turbidity. Several commercial oyster rafts operate in the channel approximately 100 feet north of the pipeline crossing. Oyster operations are particularly susceptible to contamination by suspended sediments. The applicants propose to remove the existing timber piles to a level at least one foot below the mudline. For piles that do not readily break off at least one foot below the mudline, some excavation may be required around the piles, thereby creating potential for sediment disturbance and increased water turbidity. To minimize suspended sediments from contaminating the oyster beds, Special Condition No. 7(c) requires that removal of the piles from within the slough occur only during outgoing tides such that disturbed sediments are not transported upslough toward the oyster beds. Additionally, Special Condition No. 7(d) requires that silt curtains be installed around all piles to be removed from within the slough prior to removal to further minimize water turbidity.

As conditioned, the project would not result in any significant impact to water quality and thus, no further mitigation is necessary.

## **(vii) Tidewater Goby**

The tidewater goby is a small, cryptic fish and is a federally listed endangered species. The tidewater goby is a short-lived species thought to have an annual life cycle and is unique in that it is restricted to coastal brackish water habitats. The tidewater goby is often found in waters of relatively low salinities and shallow depths. Reproduction for the goby generally peaks during spring to mid-summer. According to information from the applicants, the goby has been found in north Humboldt Bay and in a small pond east of the Mad River Slough dike.

Due to their affinity for low salinity water, tidewater gobies are unlikely to occur in the Mad River Slough, particularly during summer months of low rainfall and high salinity levels. However, little information exists regarding the use of the Mad River Slough in the vicinity of the proposed project by tidewater gobies. The U.S. Fish and Wildlife Service (USFWS) has determined that with the minimal information available, it must be assumed that tidewater gobies are present and that take could occur as a result of the proposed project. A formal Section 7 consultation will occur between the USFWS and the Army Corps of Engineers in conjunction with processing the required Corps permit. The USFWS has indicated to Commission staff that it is likely that following formal consultation, the USFWS would determine that there would be a low potential for take and that jeopardy would not occur.

To minimize the potential for adverse impacts to tidewater gobies, the Commission attaches Special Condition No. 2 which requires all construction to be performed and completed between June 1 and October 15 during periods of low rainfall and high salinity when tidewater gobies are least likely to be present in the slough channel.

The applicants have not yet initiated the formal consultation process with the USFWS and the Army Corps of Engineers. Therefore, the Commission attaches Special Condition No. 11 that

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requires that prior to commencement of construction, the applicants provide to the Executive Director a copy of any incidental take permit or other approval issued by the U.S. Fish & Wildlife Service or evidence that no permit or permission is required. The applicants shall inform the Executive Director of any changes to the project required by the U.S. Fish & Wildlife Service and any such changes shall not be incorporated into the project until the applicants obtain a Commission amendment to the coastal development permit, unless the Executive Director determines that no amendment is legally required.

As conditioned, the project would not result in any significant adverse impact to the endangered tideway goby and thus, no further mitigation is necessary.

## (viii) Sensitive Fish Species

Anadromous fish species that may occur in and around Humboldt Bay include federally listed threatened and endangered species including Coho salmon, Chinook salmon, and steelhead trout. Essential Fish Habitat (EFH) has been designated under the Magnuson-Stevens Fishery Conservation and Management Act and includes those waters and substrates necessary for fish to spawn, breed, feed, or grow to maturity. The Mad River Slough is considered "Essential Fish Habitat" for federally listed salmonids.

Staff has consulted with the National Marine Fisheries Service (NMFS) and determined that sensitive salmonid species are not expected to be present in the Mad River Slough channel, as the site is geographically removed from natal streams. In addition, Mad River Slough in this location has a high salinity level and smolts emigrating from natal streams (i.e. Freshwater Slough and Jacoby Creek) would likely rear in the east side of Humboldt Bay near salt marsh and eelgrass habitats in lower salinity areas. Furthermore, there is no riparian vegetation along the slough at this location that provides cover for salmonids. NMFS further indicated that salmonid species present at the site would likely be transient post-smolt fish or adults that would be mobile enough to avoid construction-related impacts. Moreover, the applicant proposes to maintain a 20-foot-wide channel access free of construction equipment and other barriers at all times during the project and thus, the project would not result in a barrier to fish passage.

NMFS has indicated that they do not expect the project to result in significant adverse impacts to sensitive fish species. Nonetheless, NMFS has recommended that the applicant proceed with informal Section 7 consultation in conjunction with the processing of the federal Army Corps of Engineers permit for the project. The applicants have not yet initiated the formal consultation process with NMFS and the Army Corps of Engineers. Therefore, the Commission attaches Special Condition No. 12 that requires that prior to commencement of construction, the applicants provide to the Executive Director a copy of any Army Corps of Engineers approval that incorporates the conditions of the informal NMFS consultation or evidence that no permit or permission is required. The applicants shall inform the Executive Director of any changes to the project required by the Army Corps of Engineers and/or the National Marine Fisheries Service and any such changes shall not be incorporated into the project until the applicants obtain a

# HUMBOLDT BAY MUNICIPAL WATER DISTRICT

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Commission amendment to the coastal development permit, unless the Executive Director determines that no amendment is legally required.

As conditioned, the project would not result in any significant adverse impact to sensitive anadromous fish species and thus, no further mitigation is necessary.

The Commission finds that as conditioned, all potential significant adverse impacts on coastal resources have been minimized to the maximum extent feasible consistent with Section 30233 of the Coastal Act and no further mitigation is required.

## **(d) Maintenance and Enhancement of Marine Habitat Values**

The fourth general limitation set by Sections 30231 and 30233 is that any proposed dredging or filling in coastal wetlands must maintain and enhance the biological productivity and functional capacity of the habitat, where feasible.

As discussed above in the section of this finding on mitigation, the conditions of the permit would ensure that the project will not have significant adverse impacts on wetland habitats, sensitive fish species, or water quality and thus, would not adversely affect the biological productivity and functional capacity of the wetland habitats. The Commission finds that the project, as conditioned, would maintain the biological productivity and functional capacity of the habitat consistent with the requirements of Sections 30231 and 30233 of the Coastal Act.

## **(e) Conclusion**

The Commission thus finds that the project is an allowable use, that there is no feasible less environmentally damaging alternative, that feasible mitigation is required for potential impacts associated with the dredging and filling of coastal wetlands, and that marine habitat values will be maintained or enhanced. Therefore, the Commission finds that the proposed development, as conditioned, is consistent with Sections 30231 and 30233 of the Coastal Act.

## **3. Geologic Hazards**

The Coastal Act contains policies to assure that new development minimizes risks to life and property from geologic hazard and assure stability and structural integrity. Section 30253 of the Coastal Act states in applicable part:

*New development shall:*

*(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*

*(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding*

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*area or in any way require the construction of protective devices that would substantially alter natural land forms along bluffs and cliffs.*

Recent inspections on the structural condition of the pipeline crossing have identified rot and decay on the existing timber pile caps and timber piles and have revealed that the trestle support structure is very vulnerable to failure in the event of a strong earthquake. The proposed project involves replacing the pile bents that support the pipeline crossing to reduce its seismic vulnerability and minimize the likelihood of catastrophic pipeline failure in the event of a large magnitude earthquake. The pipelines themselves are in good condition and would remain in place without interrupting service during the proposed repair of the supporting structure.

Although the purpose of the proposed project is to retrofit the pipeline crossing to withstand a high magnitude earthquake, some risks of an unforeseen natural disaster, such as seismic activity could result in destruction or partial destruction of the development approved by the Commission. As a precaution, in case such an unexpected event occurs on the subject property, the Commission attaches Special Condition No. 15 which requires the District to accept sole responsibility for the risks to the applicant and the property from the development that is the subject of this permit by submitting, prior to issuance of the permit, a written Assumption of Risk and Waiver of liability and Indemnity agreement. The condition also requires that prior to any conveyance of the property that is the subject of this coastal development permit, the applicant execute and record a deed restriction, in a form and content acceptable to the Executive Director incorporating all of the above terms of the agreement.

Therefore, as conditioned, the Commission finds that the project as conditioned is consistent with Section 30253 of the Coastal Act.

#### 4. Visual Resources

Section 30251 of the Coastal Act states that the scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance, and requires in applicable part that permitted development be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, and to be visually compatible with the character of surrounding areas.

The existing pipeline crossing to be repaired is located on the west side of Highway 255 (Samoa Boulevard) approximately one half mile upstream from where the mouth of the Mad River Slough enters Humboldt Bay. The pipeline is only minimally visible from Highway 255 because of its distance from the road and is not visible from any public park. The pipeline structure is visible to boaters as they travel along the slough and underneath the pipeline trestle crossing. The proposed project involves removing 62 existing timber piles and replacing them with 64 slightly smaller diameter steel piles in nearly the same location. The height and design of the pipeline and the supporting trestle would not change as a result of the proposed project and therefore, the appearance of the structure as viewed from the slough, Highway 255, or surrounding areas would not change. Although there may be temporary visual impacts during

# HUMBOLDT BAY MUNICIPAL WATER DISTRICT

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construction from the use of heavy equipment, the project would not result in any permanent change to the site that would adversely impact coastal views to or from Mad River Slough or Humboldt Bay.

Therefore, the Commission finds that the proposed development is consistent with Section 30251 of the Coastal Act as the development would not block views to and along the coast, would not involve any alteration of land forms, and the proposed repair of the existing pipeline crossing would not result in any change to the visual character of the coastal area.

## 5. Public Access

Section 30210 of the Coastal Act requires that maximum public access shall be provided consistent with public safety needs and the need to protect natural resource areas from overuse. Section 30212 of the Coastal Act requires that access from the nearest public roadway to the shoreline be provided in new development projects except where it is inconsistent with public safety, military security, or protection of fragile coastal resources, or adequate access exists nearby. Section 30211 requires that development not interfere with the public's right to access gained by use or legislative authorization. Section 30214 of the Coastal Act provides that the public access policies of the Coastal Act shall be implemented in a manner that takes into account the capacity of the site and the fragility of natural resources in the area. In applying Sections 30210, 30211, 30212, and 30214, the Commission is also limited by the need to show that any denial of a permit application based on these sections, or any decision to grant a permit subject to special conditions requiring public access, is necessary to avoid or offset a project's adverse impact on existing or potential access.

The proposed project involves repairs to the existing pipeline crossing over Mad River Slough, which is a popular site for recreational boating. There are no public trails or other public roads that provide shoreline access within the vicinity of the project. Public access to the site by land for recreation other than boating is prohibited by locked gates on private property and on the HBMWD access road on the west side and by the private farmland on the east side. Navigation of the slough channel is currently restricted by the overhead clearance of the pipeline crossings, railroad bridge, and highway bridge. Navigational use is generally limited to small vessels that tend the oyster beds upstream and to small recreational watercraft such as canoes and kayaks.

The proposed project could interfere with boating during construction if the placement of the barge, booms, and other construction equipment is not adequately controlled. The applicant proposes to maintain a 20-foot-wide access channel, delineated with floating buoys, through the mean lower low water channel during all times for the duration of the project. To ensure that this access is provided as proposed, the Commission attaches Special Condition No. 10 which requires that at all times, during project construction, a passage at least 20 feet wide in the mean lower low water (MLLW) channel of the Mad River Slough be kept clear of all obstructions including floating and submerged structures and equipment and suspended overhead hazards to allow for continued access through the project area by small boats and recreational water craft. The condition also requires that the passage be clearly marked with floating buoys. To further



# HUMBOLDT BAY MUNICIPAL WATER DISTRICT

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minimize navigational hazards to small watercraft traveling along the slough, Special Condition No. 7(a) requires that all timber piles to be removed are cut at least one to two feet below the mudline as proposed by the applicant. As conditioned, the project would not interfere with boating during construction.

The repairs to the pipeline crossing would not result in any permanent interference with kayak, canoe, or small boat traffic on the river, as the height of the overhead crossing would not change as a result of the proposed project. Furthermore, the proposed pipeline project would not change the nature or intensity of use of the site, and thus would not create any new demand for public access or otherwise create any additional burdens on public access.

Therefore, the Commission finds that the proposed project as conditioned, does not have any significant adverse effect on public access, and that the project as proposed without new public access is consistent with the requirements of Coastal Act Sections 30210, 30211, 30212, and 30214.

## 6. Archaeological and Cultural Resources

Coastal Act Section 30244 provides protection of archaeological and paleontological resources and requires reasonable mitigation where development would adversely impact such resources. The Mad River Slough and surrounding area is located within the ethnographic territory of the Wiyot Indians.

The applicant submitted a cultural resources study of the project area prepared by a professional archaeologist and dated April, 1999. According to the report, the purpose of the investigation was to (1) locate and record project area cultural resources; (2) evaluate the significance of cultural resources, (3) assess potential impacts to cultural resources from the proposed project, and (4) recommend appropriate mitigation measures, if necessary. The methods employed by the investigation included (1) an examination of the archaeological site records, maps and project files of the Northwest Regional Information System, and (2) an archaeological field reconnaissance of the project area.

The cultural resources investigation report concludes, "No prehistoric or historic cultural resources were discovered within the project area as a result of this investigation. No further archaeological studies are recommended at this time." The report further concludes,

"Because of the archaeological sensitivity of the area, there is a slight possibility that buried archaeological materials may be uncovered by future construction operations within the project area. Should concentrations of archaeological materials be encountered during such operations, all ground disturbing work should be temporarily halted and/or shifted to another area. Work near the archaeological finds should not be resumed until a qualified archaeologist has evaluated the materials and offered recommendations for further action."

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Therefore, to ensure protection of any cultural resources that may be discovered at the site during construction of the proposed project, and to implement the recommendation of the archaeologist, the Commission attaches Special Condition No. 11. Special Condition No. 11 requires the applicant to comply with all recommendations and mitigation measures contained in the Cultural Resources Study prepared for the project by Roscoe & Associates Archaeological Consulting, dated April, 1999. The condition further requires that if an area of cultural deposits is discovered during the course of the project, all construction must cease and a qualified cultural resource specialist must analyze the significance of the find. To recommence construction following discovery of cultural deposits the applicant is required to submit a supplementary archaeological plan for the review and approval of the Executive Director to determine whether the changes are de minimis in nature and scope, or whether an amendment to this permit is required.

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Section Coastal Act Section 30244, as the development will not adversely impact archaeological resources.

## **7. Other Agency Approvals**

The project requires review and approval by the U.S. Army Corps of Engineers. Pursuant to the Federal Coastal Zone Management Act, any permit issued by a federal agency for activities that affect the coastal zone must be consistent with the coastal zone management program for that state. Under agreements between the Coastal Commission and the U.S. Army Corps of Engineers, the Corps will not issue a permit until the Coastal Commission approves a federal consistency certification for the project or approves a permit. Additionally, the project requires approval by the Department of Fish and Game. To ensure that the project ultimately approved by the Corps, the U.S. Fish and Wildlife Service, and the Department of Fish and Game is the same as the project authorized herein, the Commission attaches Special Condition Nos. 12, 13, and 14 which require the permittee to submit to the Executive Director evidence of these agencies' approval of the project prior to the commencement of work. The conditions require that any project changes resulting from these other agency approvals not be incorporated into the project until the applicant obtains any necessary amendments to this coastal development permit.

## **8. California Environmental Quality Act**

Section 13096 of the Commission's administrative regulations requires Commission approval of a coastal development permit application to be supported by findings showing that the application, as modified by any conditions of approval, is consistent with any applicable requirement of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse effect the proposed development may have on the environment.

As discussed above, the proposed project has been conditioned to be found consistent with the policies of the Coastal Act. The Commission incorporates its findings on Coastal Act

# HUMBOLDT BAY MUNICIPAL WATER DISTRICT

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consistency at this point as if set forth in full. These findings address and respond to all public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. Mitigation measures that will minimize or avoid all significant adverse environmental impact have been required. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity would have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found consistent with the requirements of the Coastal Act and to conform to CEQA.

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## EXHIBITS:

1. Regional Location Map
2. Site Location
3. Site Plan
4. Plan Detail
5. Habitat Map

ATTACHMENT A

Standard Conditions:

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

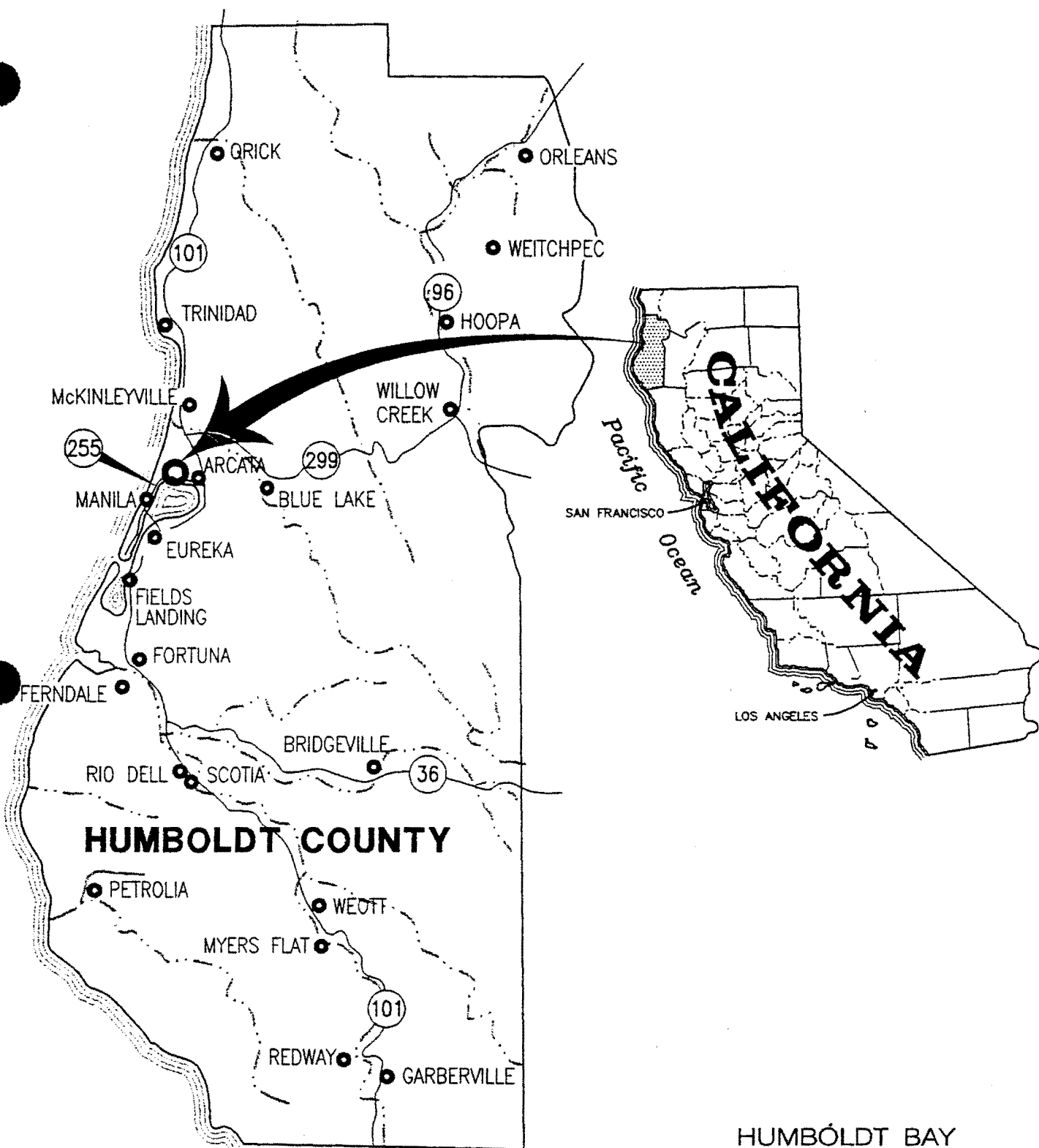


EXHIBIT NO. 1

APPLICATION NO.  
1-01-040

HUMBOLDT BAY MUNI.  
WATER DISTRICT

REGIONAL LOCATION

## LOCATION MAP

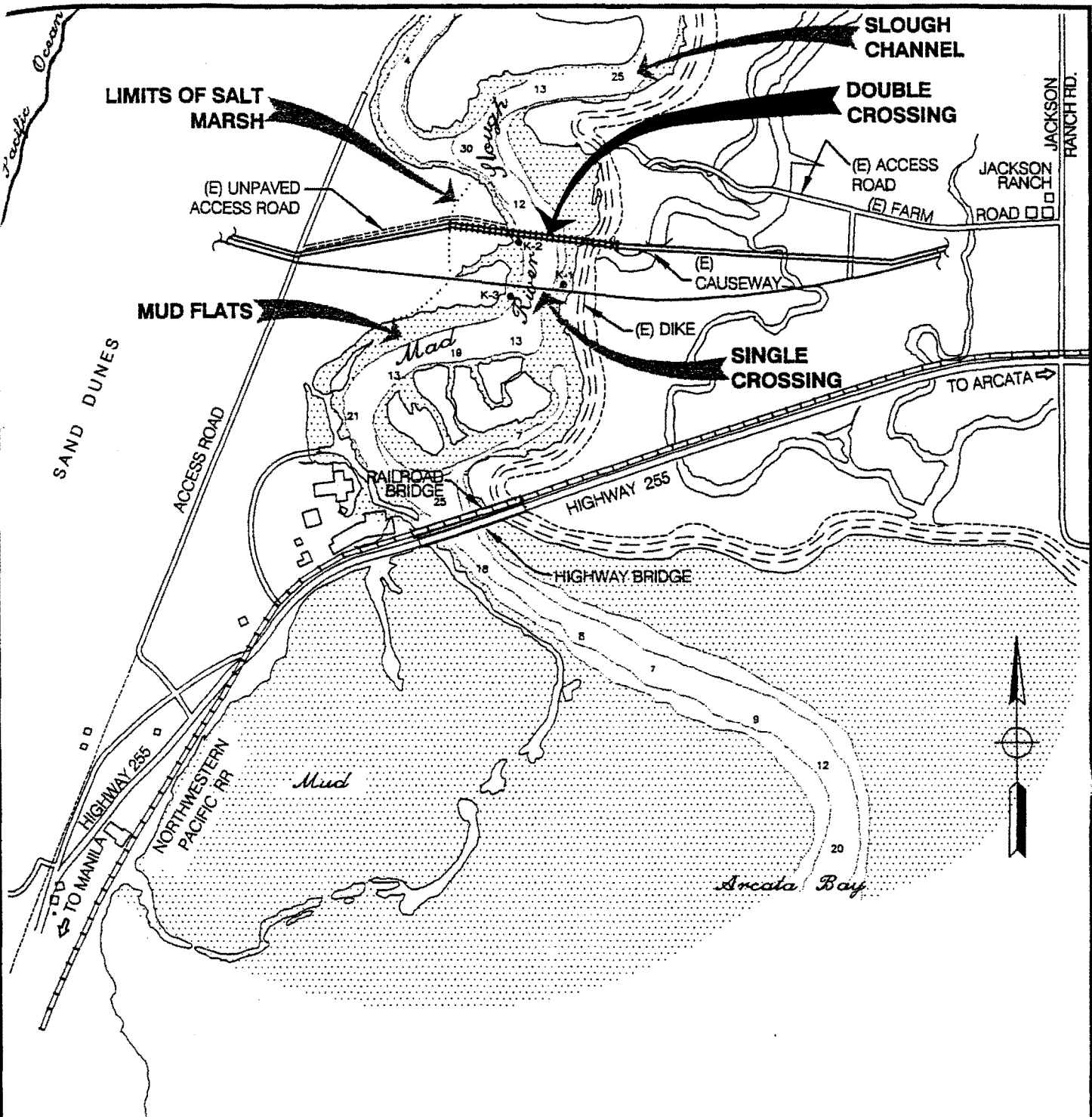
HUMBOLDT BAY  
MUNICIPAL  
WATER DISTRICT

Mad River Slough  
Double-Pipe Crossing  
Upgrade

FIGURE 1



WINZLER & KELLY



## VICINITY MAP

SCALE: 1"=1,000'

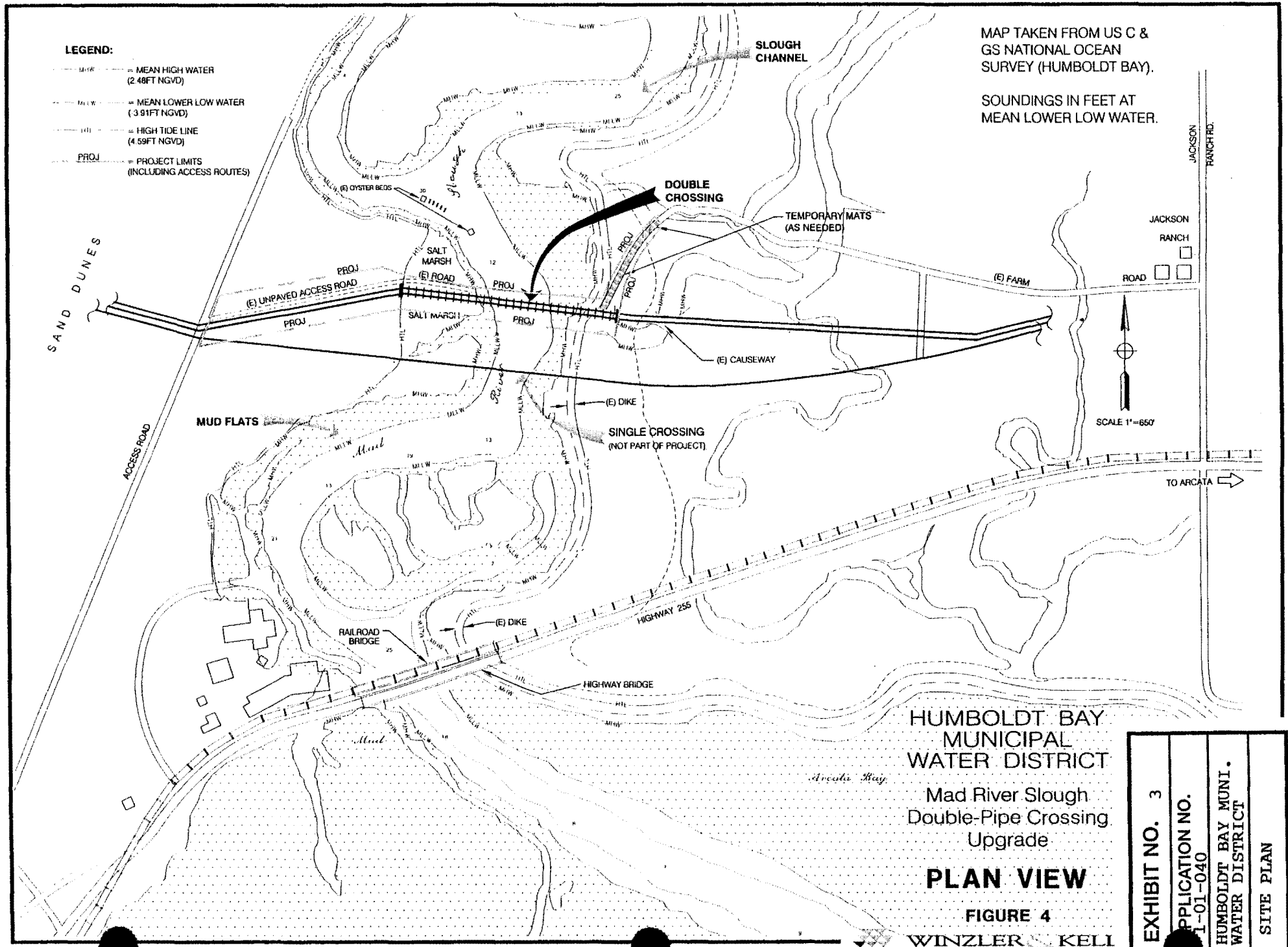
EXHIBIT NO.	2
APPLICATION NO.	1-01-040
HUMBOLDT BAY MUNI.	WATER DISTRICT
VICINITY MAP	

MAP TAKEN FROM US C & GS  
NATIONAL OCEAN SURVEY  
(HUMBOLDT BAY).

SOUNDINGS IN FEET AT MEAN  
LOWER LOW WATER.



WINZLER & KELLY



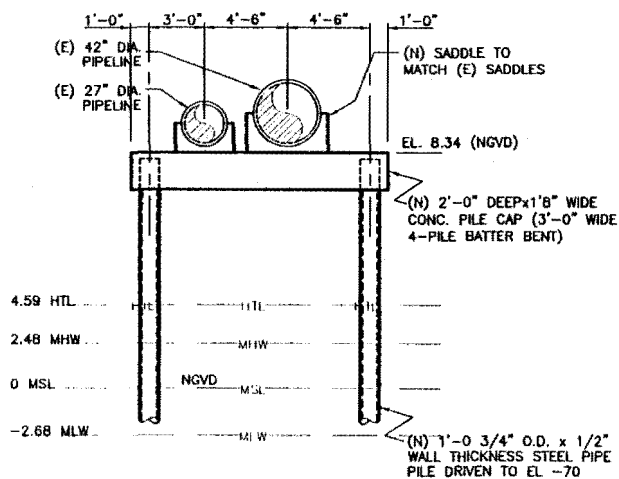
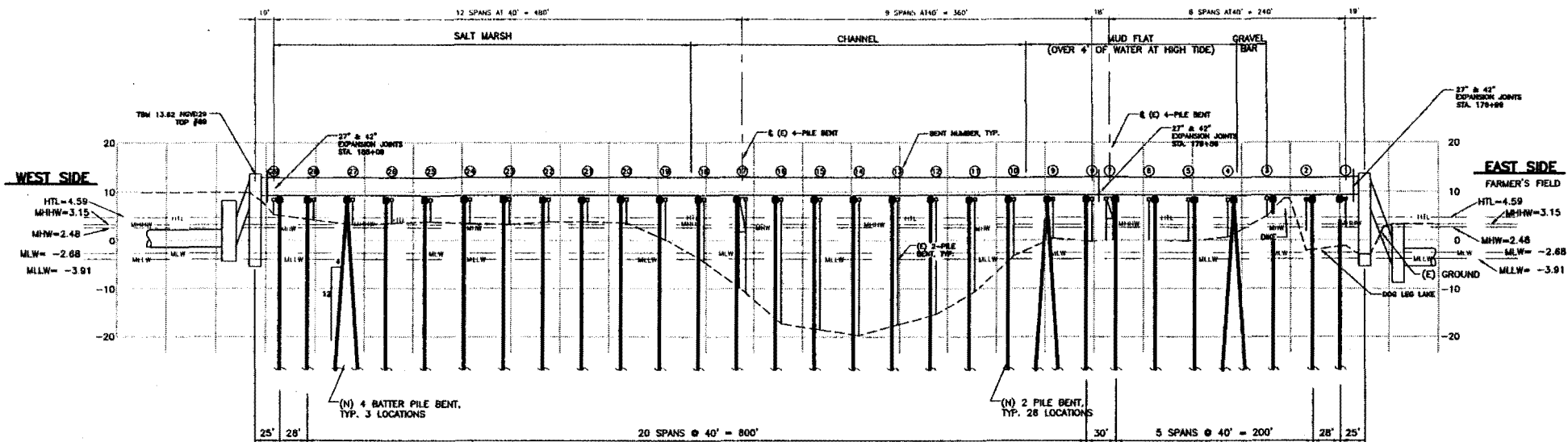


EXHIBIT NO. 4

APPLICATION NO.  
1-01-040HUMBOLDT BAY MUNI.  
WATER DISTRICT

PLAN DETAIL

DSGN	SPP	CHKD	JS
DRWN	SJD	SCALE	HORIZ: 1"=160' VERT: 1"=12.5'
approved		date	
approved		date	

BAR IS  
ONE INCH ON ORIGINAL DRAWING.

0

IF NOT ONE INCH ON  
THIS SHEET, ADJUST  
SCALES ACCORDINGLY

**WINZLER & KELLY**  
CONSULTING ENGINEERS  
833 THIRD STREET, EUREKA, CA 95501-9417 PH (707) 443-8326  
P.O. BOX 1345, EUREKA, CA 95501-1345 FAX (707) 444-8330

HUMBOLDT BAY MUNICIPAL WATER DISTRICT  
MAD RIVER SLOUGH  
DOUBLE-PIPE CROSSING UPGRADE

PRELIMINARY PROFILE  
AND DETAIL

JOB NUMBER  
00105507.031DRAWING  
FIGURE

3



**LEGEND:**

- MHW — MEAN HIGH WATER  
(2.48 FT NGVD)
- MLW — MEAN LOWER LOW WATER  
(-3.91 FT NGVD)
- HTL — HIGH TIDE LINE  
(4.59 FT NGVD)
- PROJ — PROJECT LIMITS  
(INCLUDING ACCESS ROUTES)
- [Pattern] SALT MARSH
- [Pattern] MUD FLATS
- [Pattern] DUNE MOUND FOREST
- [Pattern] DUNE GRASSLAND
- [Pattern] DUNE HOLLOW
- [Pattern] COASTAL PRAIRIE (UPLAND)
- [Pattern] WET (SEASONAL) PASTURE
- [Pattern] DISTURBED UPLAND
- [Pattern] FRESH WATER MARSH
- [Pattern] BRACKISH MARSH

SAND DUNES

ACCESS ROAD

SIERRA  
PACIFIC

POND

MUD FLATS

Mad

RAILROAD BRIDGE

SINGLE CROSSING  
(NOT PART OF PROJECT)

(E) DIKE

(E) CAUSEWAY

TEMPORARY  
MATS (AS  
NEEDED)DOUBLE  
CROSSINGTEMPORARY MATS (AS  
NEEDED)SLOUGH  
CHANNELMAP TAKEN FROM US C &  
GS NATIONAL OCEAN  
SURVEY (HUMBOLDT BAY).SOUNDINGS IN FEET AT  
MEAN LOWER LOW WATER.

TO ARCADE

HUMBOLDT BAY  
MUNICIPAL  
WATER DISTRICTMad River Slough  
Double-Pipe Crossing  
Upgrade**PLAN VIEW****FIGURE 4**

WINZLER KELLY

HABITAT TYPES	EXHIBIT NO.	5
	APPLICATION NO.	1-01-040
	HUMBOLDT BAY MUNI. WATER DISTRICT	

