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Staff Report:	September 1, 2005
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Commission Action:	

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.:	**1-05-039**
APPLICANT:	**Humboldt Bay Harbor, Recreation, and Conservation District**
AGENT:	Pacific Affiliates
PROJECT LOCATION:	At the Woodley Island Marina within Humboldt Bay and along the ocean side of the Samoa Peninsula, Humboldt County.
PROJECT DESCRIPTION:	1) Maintenance dredging of approximately 120,000 cubic yards of material and dispose of the dredged material via slurry pipeline at a beach disposal site in the tidal zone along the ocean shoreline of the Samoa Peninsula; and 2) Repair of shoreline protective rock slope armament by replacing armor rock that has become dislodged into the berthing and docking areas to be dredged.
LOCAL APPROVALS RECEIVED:	1) Humboldt County Coastal Development Permit No. CDP-04-38, approved January 23, 1997 and Conditional Use Permit No. CUP-04-14 approved January 20, 2005; and 2) Humboldt Bay Harbor, Recreation, and

	Conservation District Permit for District's dredging approved October 14, 2004 and CEQA Negative Declaration approved October 14, 2004.
OTHER APPROVALS OBTAINED OR REQUIRED:	1) State Lands Commission Approval; 2) Regional Water Quality Control Board FCWA Section 401 Water Quality Certification No. 1A04140WNHU, issued August 26, 2005; 3) U.S. Army Corps of Engineers FCWA Section 404 Individual Permit No. 22216N, issued December 10, 1997, expires March 15, 2008; and 4) U.S. Army Corps of Engineers Letter of Modification to FCWA Section 404 Individual Permit No. 22216N (pending).
SUBSTANTIVE FILE DOCUMENTS:	1) County of Humboldt Local Coastal Program; 2) Coastal Development Permit Application No. 1-87-172, issued March 2, 1988; and 3) Coastal Development Permit Application No. 1-96-060, issued November 25, 1997.

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends that the Commission approve with conditions the coastal development permit application submitted by the Humboldt Bay Harbor, Recreation, and Conservation District (HBHRCD) for maintenance dredging at vessel berthing sites within the Woodley Island Marina with disposal of dredged material at a surf zone disposal site on the ocean side of the Samoa Peninsula. The proposed project is similar to a previous maintenance dredging projects approved by the Commission in 1988 and 1998 involving suction dredging and surf zone spoils disposal. Based on: (1) physical compositional and biological assessments of the areas proposed for dredging; (2) the results of a monitoring study conducted of the surf zone disposal site used in 1988 and 1998; (3) data within the environmental review documentation prepared for the project; and (4) information generated by the applicants' consultants in response to letters commenting on the project by interested state and federal agencies, the staff has concluded that the proposed project will not have a significant impact on the environment and is consistent with the Coastal Act.

The proposed maintenance dredging would be undertaken along and within the 335 individual berthing areas and docking slips of the Woodley Island Marina. The accumulated sediment would be dredged by use of a suction-cutter dredge and conveyed through a flexible plastic pipeline, assisted by in-line pumps, to a nearshore spoils disposal area in the ocean waters off of the North Spit of the Samoa Peninsula, one of two sea strand landforms that impounds the waters of Humboldt Bay.

Neither the proposed dredging areas or the surf zone disposal site comprise sensitive habitat areas, although some benthic organisms located on the bay bottom of the marina would like become entrained in the dredge works and intertidal organisms would be temporarily affected by the disposal. The 1998 monitoring report indicated that species abundance and composition recovered to near pre-project levels within four months of deposition of material at the site. The proposed project is consistent with the use limitations of Sections 30233 and 30231 of the Coastal Act for dredging and fill projects. Use of the principal alternative disposal site for the dredged material, the offshore Humboldt Open Ocean Disposal Site (HOODS) disposal site, would not result in an environmentally less damaging alternative as use of the HOODS site would require the transfer of dredged sediment to vessels, which in turn would increase turbidity at the transfer site within Humboldt Bay near habitat areas more sensitive than at the proposed surf zone disposal site.

To ensure that the project is fully consistent with the Coastal Act and that Commission has sufficient information to evaluate future maintenance dredging projects within Humboldt Bay, staff recommends that the Commission attach six special conditions to the approval of the permit. Special Condition No. 1 requires the applicant, prior to issuance of the permit, to prepare, submit for the review and approval by the Executive Director, and implement a five-year monitoring program in the vicinity of the surf zone disposal site to assess impacts to survey the dispersal of the disposed sediments and assess the impacts of the dredged materials on epibenthic and littoral marine organisms. Special Condition No. 2 requires the applicant, prior to issuance of the permit, to similarly prepare, submit for the review and approval by the Executive Director, and implement a dredge spoils and hazardous materials spill contingency plan for responding to any accidental releases of dredge spoils and related pumping fuels and lubricants. Special Condition No. 4 requires the applicant, prior to commencement of the dredging activities, to provide a copy of any Letter of Modification to Federal Clean Water Act Section 404 Individual Permit No. 22216N as may be issued by the U.S. Army Corps of Engineers, for the Executive Director's review and determination as to whether a coastal development permit amendment would be required. The condition further requires that the dredging not be commenced until any required permit amendment is obtained from the Commission. Special Condition No. 5 requires the applicant, prior to issuance of the permit, to submit a copy of the final biological opinion issued for the National Marine Fisheries Service (NOAA Fisheries) for this proposed round of maintenance dredging, and to not initiate the dredging if the opinion results in changes to the Corps' permit until a coastal development permit amendment has been obtained from the Commission or the

Executive Director determines that no amendment is necessary. Special Condition No. 6 requires the applicant to submit, for the review of the Executive Director, a copy of the consistency determination prepared by the California Department of Fish and Game pursuant to the California Endangered Species Act (CESA) regarding the conformance of NOAA Fisheries' incidental take statement with the CESA.

Significant controversy continues to exist as to whether or not the materials to be dredged from the marina areas are suitable for disposal in the nearshore environment. Numerous members of the public have expressed concerns, based on anecdotal reports and perceptions that past nearshore spoils disposal has resulted in impacts to marine biological resources, navigable waters, human health, and coastal recreational opportunities, that these impacts will likely be repeated if the dredged sediments are allowed to be disposed off in the manner proposed by the applicant. The Commission's water quality, coastal engineering, and biological technical services staff have reviewed the various technical materials relating to the application and have concluded that, with the attachment of the special conditions enumerated above, potential impacts to coastal resources and public health would be reduced to less than significant levels while providing for the maintenance necessary for protecting high priority docking and berthing facilities for commercial fishing and water-based coastal recreational uses. Thus, as conditioned, staff believes that the project is fully consistent with the Coastal Act.

The Motion to adopt the Staff Recommendation of Approval with Conditions is found on page 6.

STAFF NOTES:

1. Withdrawal and Resubmittal of Application

The Commission opened the public hearing on Coastal Development Permit Application No. 1-04-061 for the proposed maintenance dredging at its meeting on August 12, 2005. Following presentation of the staff recommendation and testimony from interested parties regarding the appropriateness for disposing of the dredged materials in the nearshore environment, the Commission expressed concerns as to whether the potential water quality impacts of the project had been thoroughly examined. As the Commission was bound by the Permit Streamlining Act to take action on the application, and with the likelihood of a denial of the project based upon an absence of information substantiating the development's conformance with applicable Coastal Act water quality policies, at the Commission's behest, the applicant subsequently withdrew CDP Application No. 1-04-061 with the understanding that the application would be resubmitted and considered at a later hearing. Upon agreeing to withdraw and resubmit the application, the Commission directed the staff to conduct an in-house review of the chemical assessment of the sediments proposed for dredging. On August 15, 2005, the applicant re-applied for an

identical maintenance dredging project, renumbered as Coastal Development Permit Application No. 1-05-039, the subject of this permit hearing.

Since the August hearing, the Commission's Water Quality Unit has reviewed the chemical analysis of the sampled sediments proposed for dredging and considered the recommendations of the U.S. Environmental Protection Agency (USEPA) and the California Department of Fish and Game (CDFG) with regard to the appropriateness of nearshore disposing of these materials. Based on this review, Commission staff has concluded that the project will not significantly impact coastal resources. The staff continues to recommend that nearshore disposal of the spoils be authorized for the proposed maintenance dredging provided that adequate monitoring is performed to track the movement and dispersal of the dredged materials. Detailed findings concerning the Water Quality Unit's review of the project are contained in Findings Section IV.C, "Protection of Marine and Estuarine Resources."

The Commission will conduct a public hearing and may vote on the new application at its September 14, 2005 meeting.

2. Standard of Review

The portions of the proposed project being considered in Application No. 1-05-039 are located in tidelands, submerged areas, and lands subject to the public trust within the Commission's retained jurisdictional area. Therefore, the standard of review that the Commission must apply to the project is the Coastal Act.

3. Other Required Permits and Authorizations.

As stated above, the actual dredging activity is primarily regulated by the U.S. Army Corps of Engineers. In addition, the California Regional Water Quality Control Board regulates the discharges of materials into waters subject to the federal and state Clean Water Acts. The Corps is currently consulting with the National Marine Fisheries Service (NOAA Fisheries) for an interim review of the potential effects that the current round of maintenance dredging might have on salmonid fish species pursuant to Section 7 of the Federal Endangered Species Act and the Magnuson-Stevens Fishery Conservation and Management Act. Release of a final biological opinion from NOAA Fisheries is pending. Depending upon the conclusions and recommendations contained in the final opinion, changes to the Corps permit may result and would be implemented through a "Letter of Modification" issued by the Corps.

The project is also subject to the permit jurisdiction of two local agencies: (1) the Humboldt Bay Harbor, Recreation, and Conservation District (HBHRCD or "Harbor District") for the portions of the project situated at and below the Mean Higher High Water (MHHW) level (+6.52 feet $NAVD_{1988}$) within the waters of Humboldt Bay and the Mean High Water (MHW) elevation (+5.81 feet $NAVD_{1988}$) on Woodley Island; and (2)

the County of Humboldt for the portions of the dredge spoils pipeline located outside of the incorporated boundaries of the City of Eureka.

On October 14, 2004, the HBHRCD adopted a mitigated negative declaration environmental review document and approved Permit No. 04-02 for the District to conduct maintenance dredging and nearshore disposal of materials from ten sites of the eleven proposed sites along the City's waterfront over a ten-year period.

On December 12, 2004, the State Lands Commission (SLC) issued a lease dredge spoils disposal into sovereign state waters from ten of eleven of the dredging sites.

On January 20, 2005, the County of Humboldt Planning Commission conditionally approved Coastal Development Permit No. CDP-04-38 and Conditional Use Permit No. CUP-04-14 for the City's dredging and spoils disposal project.

Finally, on August 26, 2005, the Regional Board issued Federal Clean Water Act Section 401 Certification No. 1A04140WNHU for the proposed maintenance dredging (see Exhibit No. 10).

4. Relation to Application No. 1-05-040

Application No. 1-05-040 (City of Eureka) and Application No. 1-05-039 (Humboldt Bay Harbor, Recreation, and Conservation District) are both scheduled for consideration at the September 14, 2005 Commission meeting. The two applications are related in that the applications: (1) are for development that would be performed as one project by the same contractor; and (2) would share the same disposal site and disposal pipeline. Two separate applications were submitted because the areas to be dredged are administered by the two different public entities pursuant to two separate legislative grants of tidelands.

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. 1-05-039 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. Monitoring Report

A. **PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. 1-05-039**, the applicant shall submit for the review and approval of the Executive Director a surf zone disposal monitoring plan that provides for monitoring over a five year period of: (1) the pattern and rate of dispersal of material deposited at the site; (2) sediment characteristics at the disposal site and at the control site; (3) the species composition and abundance of intertidal invertebrates in areas directly affected by the disposal of dredge spoils and at a control site near the disposal area over a three year period; and (4) the effects of the surf zone disposal on fisheries. Specific dispersal monitoring provisions shall include: (a) pre- and post-disposal aerial photographs; (b) hygrographic surveys, scanning sonar, fathometer soundings, or other similar bathymetric measurements; (c) turbidity or opacity measurements; and (d) sediment core samples of the immediate area of the dredge materials disposal site and extending offshore to a closure depth of -40 feet msl and three times the distance to the depth of closure laterally north and south of the disposal site along the adjoining ocean shoreline, taken at appropriate intervals to adequately monitor the movement and dispersal of discharged materials, and to characterize the composition of nearshore ocean sediments and epibenthic marine habitat. The plan shall provide for submittal of reports providing the required monitoring information before, during, and within four months after conclusion of

the disposal operation, and yearly reports thereafter to be submitted by July 1 of each year.

B. In the event that the monitoring program reveals that the turbidity generated by the discharge exceeds 20% of the background levels of the receiving waters or persistent shoaling or beach deposition of dredged materials in concentrations that could cause significant adverse impacts to marine biological resources, coastal recreational activities, or navigation, the permittee shall prepare and submit, for the review and approval of the Executive Director, within 60 days of submittal of the final monitoring report, a dredged materials remediation plan identifying corrective actions to be undertaken to restore the affected areas to their pre-disposal conditions. The plan shall identify appropriate remedial actions to be taken, including mechanical and hydraulic removal, *ex-situ* treatment, capping, *in-situ* remediation, or natural attenuation and continued monitoring efforts, if the disposed dredged materials fail to disperse, persist on the receiver beach and intertidal areas, or cause significant adverse impacts to marine organisms within the study area at the end of the initial five-year period. Specific actions shall also be identified to reduce the turbidity generated by the discharge of the dredged materials to less than 20% or less of the background levels of the receiving waters. The plan shall be processed as an amendment to the coastal development permit unless the Executive Director determines that no amendment is required.

C. The permittee shall undertake the dredging spoils transmission and nearshore disposal activities in accordance with the approved final plan. Any proposed changes to the approved final plans 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 required.

2. **Dredge Spoils Slurry /Hazardous Materials Spill Contingency Plan**

A. **PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. 1-05-039**, the applicant shall submit for Executive Director approval a project-specific dredge spoils slurry monitoring and spill contingency plan that includes: (1) an estimate of a reasonable worst case release of dredge spoils, and pumping-related fuels and lubricants into coastal waters or wetlands that could result from project operations; (2) a clear protocol for monitoring and minimizing the risks of the transmission of dredge spoils through environmentally sensitive areas during maintenance dredging operations, including criteria for identifying an unanticipated slurry release and proposed transmission pipeline sealants or other repair materials; (3) a response and clean-up plan in the event of a spill or accidental discharge of dredge spoils and/or pump fuels and lubricants; (4) a list of all clean-up equipment that will be maintained on-site; (5) the designation of the onsite person who will have responsibility for implementing the plan; (6) a

telephone contact list of all regulatory and public trustee agencies having authority over the development and/or the project site and its resources to be notified in the event of a spill or material release; and (7) a list of all conduit and pumping materials, fluids, additives, and sealants that will be used or might be used in the transmission and pumping of the dredge spoils, together with Material Safety Data Sheets for each of these materials.

B. The permittee shall undertake the dredge spoils disposal activities in accordance with the approved final plan. Any proposed changes to the approved final plans 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 required.

C. In the event that a spill or accidental discharge of dredge spoils or other fuel or lubricant fluids occurs during spoils disposal operations, all maintenance dredging and disposal activities shall cease and shall not recommence except as provided in subsection (D) hereof:

D. Following discovery of the spill or accidental discharge of dredge spoils or other fuel or lubricant fluids, the permittee shall submit to the Executive Director a revised project and restoration plan prepared by qualified professional(s) that provides for: (1) necessary revisions to the proposed project to avoid further spill or accidental discharge of spoils and/or fluids; and (2) restoration of the area(s) affected by the spill or accidental discharge to pre-project conditions. The revised project and restoration plan shall be consistent with any applicable requirements of the State and/or Regional Water Resources Control Board(s). The revised project and restoration plan shall be processed as an amendment to the coastal development permit. Maintenance dredging and disposal may not recommence until after an amendment to this permit is approved by the Commission.

3. <u>Maintenance Dredging Line Flushing and Shoreline Protective Works Repair Responsibilities</u>

A. The permittee shall comply with the following marina dredging maintenance program-related requirements:

(1) Periodic flushing of the pipeline shall be undertaken at a depth of three (3) feet above the bay bottom;
(2) Water intake from the middle or surface of the water column is prohibited; and
(3) Care shall be taken to avoid trampling, uprooting, or otherwise impacting areas of eelgrass (<u>Zostera marina</u>) during the extrication from the dredging areas and repositioning of dislodged rock slope protection materials back onto the marina shoreline revetment structures. Training as to the location

and identification of eelgrass beds in the vicinity of the shoreline protective repair work shall be provided to the revetment repair contractors.

B. The permittee shall perform the proposed development consistent with these maintenance responsibilities. Copies of these mitigation measures shall be incorporated into all contractual documents for the development and a copy of the mitigation measures kept at the development site and made available to workers.

4. **Conformance with USACE Requirements**

PRIOR TO COMMENCEMENT OF OPERATIONS AUTHORIZED UNDER THIS PERMIT, the permittee shall submit to the Executive Director for review, a copy of the Letter of Modification to U.S. Army Corps of Engineers (USACE) Permit No. 22215N, or evidence that no other USACE permit or authorization is necessary for aquatic nearshore disposal of dredge spoils from the Woodley Island Marina. The applicant shall inform the Executive Director of any changes to the project required by the U.S. Army Corps of Engineers or the U.S. Environmental Protection Agency. 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 required.

5. **Final Biological Opinion**

PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. 1-05-039, the applicant shall submit, for the review and approval of the Executive Director, a copy of the Final Biological Opinion in support of the maintenance dredging spoils disposal authorized by this permit as issued by the National Marine Fisheries Service. The permittees shall inform the Executive Director of any changes to the project required by the U.S. Army Corps of Engineers as set forth in the biological opinion. Such changes shall not be incorporated into the project until the permittees obtain a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

6. **Conformance with California Department of Fish and Game**

PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. 1-05-039, the applicant shall submit, for the review and approval of the Executive Director, a copy of the consistency determination as may be prepared by the California Department of Fish and Game (CDFG) pursuant to Fish and Game Code 2080.1, in response to any incidental take permit for coho salmon (Oncorhynchus kisutch) issued by the National Marine Fisheries Service (NOAA Fisheries) for the project. The permittees shall inform the Executive Director of any changes to the project required by any Fish and Game Code Section 2081(b) Take Permit issued by the CDFG. Such changes shall not be

incorporated into the project until the permittees obtain a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

IV. FINDINGS AND DECLARATIONS:

The Commission hereby finds and declares:

A. Project and Site Description.

The Humboldt Bar Harbor, Recreation, and Conservation District (HBHRCD) was created in 1970 by the California Legislature to serve the natural resource, recreational, shipping, and economic development management needs of Humboldt Bay and the smaller fishing ports to the north and south (i.e., Trinidad, Shelter Cove). The District functions as the Port Authority for the Port of Humboldt Bay and operates Humboldt County's largest marina, Woodley Island Marina.

The applicant proposes to maintenance dredge a total of approximately 120,000 cubic yards of material from the Woodley Island Marina boat basin in Humboldt Bay (see Exhibit Nos. 1-3). The dredging would be performed as a slurry via a pipeline to a beach disposal site on the ocean side of the Samoa Peninsula, the landmass that forms the western boundary of Humboldt Bay. The dredging would be performed at the same time as a maintenance dredging project along the Eureka waterfront by the City of Eureka (being considered concurrently under Coastal Development Permit Application No. 1-05-040). The two projects would be performed by the same contractor and would share the same disposal pipeline and disposal site.

1. Proposed Dredging Site

The proposed 120,000 cubic yards dredging would restore the marina to its original design depth of –14.0 Mean Lower Low Water (MLLW) and –10.0 MLLW. The 335-berth marina was constructed in 1978, and is used by both commercial fishermen and recreational boaters. The dredging would be performed within the berthing areas and fairways of the marina over a total area of approximately 16.15 acres. The maximum cut (depth of material) is approximately six feet. The marina would continue to operate during the dredging work to ensure commercial and recreational access to coastal waters.

2. Proposed Method of Dredging and Spoils Disposal

The proposed cutter suction pipeline dredging method involves use of a hollow suction pipe which extends to the bay floor. The pipe contains a rotating cutter head, which can be swept back and forth across the work area and can be

extended into confined areas such as boat slips and under dock faces, etc. As material is loosened by the cutter, it is drawn up the suction pipe to the surface where the suction pipe is joined to a closed flexible pipeline for pumping to the disposal site. The material drawn up by the suction dredge consists of approximately 20% sediment and 80% bay water.

The dredge is a pontoon-mounted crane that lowers a dredge boom, containing a cutter head coupled with a suction pipe, to the bottom. As the cutter head rotates and loosens the bottom material, the material is drawn directly up the suction pipe to the surface and the slurry of sediment and water is then pumped through a floating semi-flexible disposal pipeline, assisted by land based booster pumps for pipeline transfer to the designated disposal area in the surf zone of the Samoa Peninsula.

The slurry pipeline would consist of a 12-inch-diameter fused flexible plastic line. The suction pipe, with a pumping rate of 15-20 feet-per-second, would remove approximately 200 cubic yards of solid material per hour depending on site conditions and dredging operators, and dispose of the material at a similar rate. Unless maintenance or repair is necessary, the dredge is expected to operate 24-hours a day, six to seven days per week. The pipeline is inspected regularly and maintained to insure integrity and prevent leaks or breaks. The dredge and the shore-based booster pumps rely on diesel engines and generate the noise and exhaust roughly equivalent to that of a semi-tractor truck when operational. In order to purge the pipeline of any accumulated sediment, the cutter head would be lifted off the bottom twice a day, and water from the water column would be drawn into the cutter head for approximately twenty minutes.

The pipeline is floated across open water areas and weighted and submerged where crossing navigable waters. Placement of the pipeline in the water would be from a slow moving barge, and the pipeline would be routed through an existing carrier pipes and overland to the approximately 20 acre beach disposal site. The total length of the pipeline is 21,400 feet (4.5 miles), with approximately 6,000 feet overland, and the remaining 15,400 feet in Humboldt Bay.

The line would extend on floats from the dredging location to the State Route 255 (SR 255) right-of-way; SR 255 is the highway that crosses Humboldt Bay between Woodley Island and the Samoa Peninsula in a series of bridges. The pipeline would be placed along the shoulder of the right-of-way where the highway crosses Woodley and Indian Island at ground level, and placed in the water in the shadows of the bridges where the highway crosses water. In tidal locations, the pipeline would be floated into position at high tide to avoid unnecessary disturbance to the mudflats. Where the line would cross navigable waters, weight would be attached to submerge the line and permit the normal passage of vessels. Buoys and lights would be installed to prevent navigational

hazards. A Notice to Mariners is also filed with the U.S. Coast Guard for the duration of the project, advising marine travelers of the location of the pipeline and dredging activities. Once the pipeline reaches the Samoa Peninsula, the line would cross under the Northwestern Pacific Railroad and New Navy Base Road through existing carrier pipes and then continues across the dunes of the North Spit via off-road vehicle trails to the surf zone disposal site. The slurry material is pumped through the pipeline to the disposal site under pressure from several in-line booster pumps.

Once the dredge and crew arrive in Humboldt Bay, mobilization of the spoils line, booster pumps and dredge is expected to take 10 to 15 days. Dredging is scheduled to commence on November 1, 2005 and is expected to be completed by March 31, 2006.

3. Proposed Disposal Site

The location of the surf zone disposal site is shown on Exhibit No. 4. The pipeline would discharge the dredged material directly into the surf zone. The disposal site would be posted at several locations and barricades and lighting would be provided and maintained through the project to further inform users of the Peninsula of the temporary project activities occurring there. The sediment to be dredged consists of typically fine-grained material composed of approximately 15% sand, 45% silt, and 40% clays. By comparison, the composition of the beach adjoining the disposal area is approximately 95% sand content. The applicant anticipates that most of the sub-sand material will disperse as suspended sediment along the large Eel River basin shelf area offshore. According to the applicant, this shelf area also absorbs an estimated average annual sediment load of approximately 24,698,370 cubic yards discharged by the Eel and Mad River systems. The Eel River represents one of the largest suspended sediment sources in the world. The proposed dredging and dispersal would occur during the winter months, between November and mid-March, when ocean turbidity from the river discharges is at a natural seasonal maximum, to minimize the sedimentation impact on the ocean. The applicant expects that most of the material discharged to the surf zone disposal site would be dispersed offshore as part of cyclical process of erosion of the winter beach. Some of the material that erodes away would likely be deposited again at the site as part of the natural spring beach build up, but the applicant indicates that all of the material should leave the site within two years.

The Samoa Peninsula surf disposal site has been used thrice previously for dredge material disposal. In 1977, the Corps of Engineers disposed of approximately 1.8 million cubic yards of material from the North Bay Channel Deepening project at this location. In 1988, the site was also used for the disposal of 131,000 cubic yards of material from a maintenance dredging project at the Woodley Island

Marina. The Coastal Commission approved the maintenance dredging and surf zone disposal under Coastal Development Permit No. 1-87-172. Subsequently in 1998, pursuant to Coastal Development Permit Nos. 1-96-060 and 1-96-061, 226,238 cubic yards of dredged spoils from the City waterfront and the Woodley Island Marina were disposed at the Samoa Peninsula surf disposal site.

The proposed maintenance dredging project is only one of several dredging projects performed or proposed for Humboldt Bay. The proposed maintenance dredging project is separate from the annual Humboldt Bay maintenance dredging project performed by the U.S. Army Corps of Engineers. The proposed maintenance dredging project is also separate from the annual Humboldt Bay Channel maintenance dredging projects also performed by the Corps. Between 1982 and 2004, the Bay Channel maintenance project removed approximately 802,000 cubic yards per year. The material from the Corps dredging projects has been and will continue to be disposed of at the "Humboldt Open Ocean Disposal Site (HOODS).

4. Shoreline Protective Structural Repairs

Concurrently with the dredging of the berthing areas, repairs will also be made to the revetment armoring that lines the marina shoreline. As a result of high tides and storm surge, some of the 500-lb quarry stone riprap along an approximately 100-foot-long run of the rock slope revetment have become dislodged and fallen into the adjacent berthing areas to be dredged. During the course of the suction dredging the stones will be unearthed and a land-based excavator or other mechanized heavy equipment capable of lifting a ¼-ton rock at a boom length will extricate the rocks from the silted in area and replace them back into the rock slope works.

The entire project except for a portion of the pipeline would be located within the Commission's retained jurisdictional area. The segment of pipeline that extends over the Samoa Peninsula from the bay to the mean high tide line of the surf zone disposal site is located within the coast permit jurisdiction of Humboldt County. The County approved a coastal development permit (CDP-04-37) and a coastal use permit (CUP-04-13) on January 20, 2005. The County permits required avoidance and mitigation of potential disturbance to sensitive rare plants, including the Menzies wallflower (Erysimum menziesii) and beach layia (Layia carnosa). The coastal development permit was not appealed to the Commission.

B. Need for Dredging and Dredge Spoils Disposal.

The proposed dredging and related nearshore disposal of dredged materials would support the continued use of berthing areas within Humboldt Bay for recreational boaters

and commercial fishermen. The Coastal Act contains strong policy language supporting marina uses, including those which require dredging. Section 30220 provides that:

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

Section 30224 provides that:

> *Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities, providing harbors of refuge, and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land.*

Section 30234 provides, in part that:

> *Facilities serving the commercial fishing and recreational boating industries shall be protected and. where feasible, upgraded...*

Section 30255 provides that:

> *Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent developments shall not be sited in a wetland. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support.*

The proposed maintenance dredging and nearshore dredged material disposal project would support the continued use of the Woodley Island Marina for these priority uses. Without the dredging and the disposal of the dredged materials, the berthing areas and slips of the marina would continue to fill with sediment and would no longer be usable for mooring vessels. Adequate mooring facilities that do not similarly need maintenance dredging and the disposal of the dredged materials are not available elsewhere within Humboldt Bay. Therefore, the Commission finds that the proposed dredging and the disposal of the dredged materials would support recreational boating and commercial fishing, consistent with Sections 30220, 30224, 30234, and 30255 of the Coastal Act.

C. <u>Protection of Marine and Estuarine Resources.</u>

A number of Coastal Act policies address the protection of marine resources from the impacts of dredging and dredge spoils fill projects. These policies include, among others, Section 30231 and 30233.

Section 30231 of the Coastal Act provides as follows, in applicable part:

> *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored...*

Section 30233(a) provides as follows, 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:*
>
> *(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
>
> *(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
>
> *(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.*
>
> *(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.*

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

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

(7) Restoration purposes.

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

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.

(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. [Emphases added.]

The above policies set forth a number of different limitations on what development may be allowed in wetlands and other water bodies within the coastal zone. For analysis purposes, the limitations can be grouped into five general categories or tests. These tests are:

- That the purpose of the fill is for one of eight uses allowed under Section 30233;
- That feasible mitigation measures have been provided to minimize adverse environmental effects;
- That the project has no feasible less environmentally damaging alternative;
- That the biological productivity and functional capacity of the habitat shall be maintained and enhanced where feasible; and
- That dredge spoils suitable for beach replenishment be transported to appropriate beaches or into suitable long shore current systems.

1. Permissible Use for Dredge Spoils Disposal in Coastal Waters.

The first test set forth by the Coastal Act policies that address the protection of marine and estuarine resources is that any proposed dredging or fill project must be for an

allowable purpose under Section 30233 of the Coastal Act. The proposed project involves maintenance dredging.

Section 30233(2) allows dredging for maintaining existing, or restoring previously dredged depths in existing vessel berthing and mooring areas, and launching ramps. The proposed dredging is limited to areas that have been previously dredged to the same elevation for vessel berthing and mooring. Therefore, the Commission finds that the proposed dredging, and its associated pipeline installation and beach disposal, are consistent with the use limitations of Section 30233, as the dredging is for the maintenance of existing vessel berthing and mooring areas.

2. Feasible Mitigation Measures

The second test set forth by Section 30231 and 30233 of the Coastal Act is that feasible mitigation measures have been provided to minimize adverse environmental effects. The Commission must examine the potential impacts of the project on marine and estuarine resources for the non-exempt portions of the project within its jurisdictional area (i.e., excluding the project portions within the County of Humboldt's permitting jurisdiction.) The project could have seven potential adverse effects on such resources, including: (1) the removal of habitat at the dredging sites; (2) the entrainment of juvenile salmonids into the suction dredge pipeline during line flushing maintenance; (3) increasing turbidity levels at the dredge site; (4) increasing turbidity levels during installation and removal of the dredge spoils pipeline; (5) the covering of estuarine intertidal habitat along the route of the dredge spoils pipeline within Humboldt Bay; (6) accidental releases of the dredge spoils slurry and/or pumping-related fuels or lubricants; (7) disturbing marine intertidal habitat at the dredged material disposal site; (8) degrading water quality at the nearshore dredged materials disposal site; and (9) release of hydrogen sulfide. None of these impacts, however, have been determined to be significant.

(1) Removal of Habitat at Dredging Sites.

The site of the proposed dredging within the Woodley Island Marina basin provides soft bottom habitat that may be habitat for a variety of benthic organisms. In addition, sparse clumps of eelgrass have materialized sporadically along the slope of the marina since the previous dredging was performed in 1998. The proposed dredging would remove much of this soft bottom habitat area. However, the impact is not judged to be significant for several reasons. Firstly, when the marina was created in 1978, the eelgrass and soft bottom habitat that was removed by excavating the marina basin was reestablished elsewhere in Humboldt Bay as a mitigation measure. At the time, it was recognized that the marina would require periodic maintenance dredging and the mitigation was required to ensure that creation of the marina and its subsequent maintenance dredging would not result in a net loss of habitat. Secondly, as occurred after the 1988 and 1998 maintenance dredging projects, the site can be expected to be re-colonized by the flora and fauna that would be temporarily displaced by the project. These organisms grow in sufficient

abundance in areas adjacent to the marina that a ready source of colonizers exists to replace the organisms that are lost.

(2) Entrainment of Juvenile Salmonids

The U.S. Army Corps of Engineers initiated a formal Section 7 consultation pursuant to the federal Endangered Species Act (FESA) of 1973, as amended (16 USC. 1531 et seq.) with the National Marine Fisheries Service (NOAA Fisheries) regarding potential impacts from the proposed cooperative maintenance dredging project. Humboldt Bay is a component of the designated critical habitat for the Southern Oregon/Northern California Coastal (SONCC) evolutionary significant unit of coho salmon (Oncorhynchus kisutch) and is suitable migration habitat for the SONCC coho, Northern California (NC) steelhead (Oncorhynchus mykiss), and California Coastal (CC) Chinook salmon (Oncorhynchus tshawytscha). The site may also be suitable rearing habitat for Chinook salmon.

Mad River Biologists (MRB), consultant to the applicant, have prepared the "2005 Humboldt Bay Maintenance Dredging, Eureka Waterfront, Biological/Botanical Resources Report" for the City of Eureka. The biological opinion being prepared by NOAA Fisheries is expected to be completed in early September 2005. Special Condition Nos. 5 and 6 require the applicant to submit, for the review of the Executive Director, a copy of the final biological opinion issued for the dredging project by NOAA Fisheries.

Because the maintenance dredging would be conducted within a timeframe concurrent with the out-migration of coho salmon (Oncorhynchus kisutch) of the Southern Oregon/Northern California Coast (SONCC) Evolutionarily Significant Unit (ESU), the staff of NOAA Fisheries have indicated to the Commission staff that the agency expects a few small SONCC coho salmon smolts and their prey to be exposed to risks of potential entrainment by the dredge. In addition, larval stage Pacific herring (Clupea pallasi) and Dungeness crab (Cancer magister) are expected to be entrained as well. Exposure of these individuals would be limited to late February and March, and limited primarily to within and in the vicinity of Woodley Island.

To minimize the risks of entrainment of these species, NOAA Fisheries staff recommend that the periodic flushing of the pipeline: (1) be undertaken at a depth of three feet from the bay bottom; and (2) water intake from the middle or surface of the water column be prohibited. NOAA Fisheries staff have stated that these dredge operational measures would reduce the potential risks of entrainment of these environmentally sensitive species to a less than significant level.

To assure that the potential entrainment of juvenile salmonids and other estuarine species is minimized, the Commission attaches Special Condition No. 3. Special Condition No. 3 sets forth as project performance standards the above-listed criteria for flushing the dredge spoils slurry pipeline recommended by NOAA Fisheries for minimizing entrainment of estuarine organisms.

(3) Temporary Increase of Turbidity at Dredge Sites.

As the proposed dredging would disturb sediments at the dredging locations, a temporary change in turbidity in the immediate areas of the dredging is expected. Increased turbidity can have deleterious effects on the estuarine habitat, burying eelgrass and other vegetation and disturbing the spawning, feeding, and other activities of fish and other fauna. However, the proposed project would minimize turbidity impacts and reduce them to a level of insignificance through: (1) the use of a suction dredge which creates much less turbidity than other forms of dredging; (2) the use of a pipeline to transport the dredge material to the disposal site as opposed to other forms of transferring the material, such as the use of a hopper barge; and (3) timing the project to occur in the winter months when natural turbidity is high due to increased local river flows.

(4) Temporary Increase of Turbidity During Installation and Removal of the Dredge Spoils Pipeline.

The proposed installation and removal of the dredge spoils transmission pipeline could disturb sediments within the mudflat areas along the pipeline's route. Increased turbidity can have deleterious effects on the estuarine habitat, burying eelgrass and other vegetation and disturbing the spawning, feeding, and other activities of fish and other fauna within the water column and along the bay bottom. However, based upon discussions with National Marine Fisheries Service (NOAA Fisheries) staff, the proposed project would minimize turbidity impacts and reduce them to a level of insignificance through: (a) avoiding mudflats to the greatest extent practicable during installation of the dredge disposal line; (b) installing and removing the pipeline during high tide when these sensitive areas are inundated to assure that no vessel propellers, anchors or dredging equipment are dragged over the mudflats.

(5) Covering of Habitat Along the Dredge Spoils Pipeline within Humboldt Bay.

The routes of the proposed dredge spoils pipeline through Humboldt Bay provide soft bottom habitat that may be habitat for a variety of benthic organisms. In addition, sparse clumps of eelgrass have materialized sporadically in various berthing areas since the previous dredging was performed. The proposed dredging would remove much of this soft bottom habitat area. However, the impact is not judged to be significant. The loss of the sparse patches currently existing along the pipeline routes would not result in a significant loss of biological productivity. In addition, the pipeline routes can be expected to be re-colonized by the flora and fauna that would be temporarily displaced by the project. These organisms grow in sufficient abundance in areas adjacent to the pipeline routes that a ready source of colonizers exists to replace the organisms that are lost.

(6) Accidental Release of Dredge Spoils Slurry or Hazardous Materials.

The project entails the transmission of a dredge spoils slurry through a 12-inch diameter flexible pipeline over a distance of 21, 400 feet (4.5 miles), with approximately 6,000 feet of the pipeline crossing overland, and the remaining 15,400 feet traversing the waters of Humboldt Bay. If a rupture should occur in the slurry transmission pipeline, an uncontrolled release of highly turbid water and sediment into environmentally sensitive habitat area within the bay, estuarine or marine wetlands, or upland areas could result with potentially deleterious effects to the plant and animals that utilize these areas as habitat.

Additionally, given the five-month scope of the project, re-fueling or lubricating motorized equipment (i.e., the in-line booster pumps) during the course of maintenance dredging activities is anticipated. An accidental spill of pump fuel or lubricants could adversely affect the environmentally sensitive resources within the project area and the water quality of the adjoining estuarine and marine environments. Special Condition No. 2 requires the applicant to undertake the proposed development consistent with an approved Dredge Spoils Slurry / Hazardous Materials Spill Contingency Plan. This plan is to include pipeline monitoring and leak response provisions and water quality best management practices for the prevention of hazardous material spills and provisions for prompt containment and clean-up of any spills which may inadvertently occur. As conditioned, potential adverse impacts from accidental dredge spoils slurry or fuel or oil spills to land and marine resources will be reduced to less-than-significant levels.

(7) Disturbance of Habitat at the Nearshore Disposal Site.

The surf zone disposal site is inhabited primarily by intertidal invertebrate fauna, including motile, burrowing crustaceans and polycheate worms. As noted previously, the site was used for the similar disposal of approximately 226,238 cubic yards of dredged material in 1998. A monitoring study was conducted prior to, during, and just after this last episode of dredged material disposal. The monitoring report stated that prior to the last use of the area for dredged material disposal, in overall species richness, Samoa Beach was intermediate between local semi-protected sandy beaches and sandy beaches exposed to extreme wave conditions. In both pre- and post-discharge periods, the beach fauna was dominated in species composition and numerically by the burrowing isopod Excirolana linguifrons and the burrowing marine worm Euzonus williamsi. The abundance of E. linguifrons and E. williamsi appears to have been much less in 1988 than was collected in 1998. The abundance of other sand beach animals was comparable in 1988 and 1998. By the August sampling period in 1998, the level of faunal similarity approximated that found in the pre-discharge sampling. The reappearance of mole crabs (Emerita analoga) in August samples at all three transects and its abundance at the discharge transect indicates that little residual biological effect of dredge spoils could be detected at the discharge point. The material to be discharged from the proposed project would temporarily bury this habitat, until wave and tidal action disperses the material to the offshore shelf. Impacts to the habitat are expected to be similar to the impacts that

occurred in 1998. According to the 1998 monitoring study, the habitat area recovered rapidly:

> Based on the present study, negative effects of temporary discharge of dredge spoils on intertidal fauna of Samoa Beach were localized and transitory, primarily affecting the abundance of characteristic beach species in the immediate vicinity of the disposal outfall. Within 1 month following the end of disposal operations, most species characteristic of this beach were present at the outfall site, although at reduced densities. Approximately 4 months following termination of beach disposal, populations at the Disposal Site had recovered to levels comparable to those at the Control Site.

Thus, based on the result of the 1998 monitoring report, the impacts of the proposed discharge of dredged material on the surf zone habitat can be expected to be temporary and insignificant.

(8) Water Quality at the Nearshore Disposal Site.

Several members of the public have observed that as the sand content of the dredged materials proposed for nearshore ocean disposal are far less than 80%, the materials would not be suitable for nearshore disposal from the standpoint of the protection of water quality (see Exhibit No. 12). In addition, staff from the California Department of Fish and Game (CDFG) and the U.S. Environmental Protection Agency have expressed reservations as to the appropriateness of disposing of the subject dredged materials in the nearshore environment given the high fines content of the dredge spoils as compared to the composition of sediments in proximity to the discharge area. However, the Commission notes that neither the U.S. Army Corps of Engineers or the U.S. Environmental Protection Agency have established a firm prohibition on the nearshore disposal of dredged sediments containing less than 80% sand. To the contrary, as discussed the Coastal Sediment Management Workgroup's 2003 work plan:

> It appears that there is a widespread misperception, within both regulatory agencies and the regulated community, that an 80/20 coarse-to-fines 'rule-of-thumb' ratio is an inviolate rule prohibiting the use of dredged material containing more than 20% fines...
>
> The U.S. Army Corps of Engineers (USACE) and U.S. Environmental Protection Agency (EPA) share regulatory responsibility for all discharges of dredged material in waters of the United States under Section 404 of the Clean Water Act (CWA)... Officials with both agencies agree that the 80/20 ratio is a 'rule of thumb' only and that there is no statutory authority for its enforcement nor any known definitive studies or research from which a 20% cut-off was selected. Instead, it represents a national

> consensus value based on experience that such sediments are unlikely to be contaminated to an extent that would cause environmental damage...
>
> Both agencies also recognize that there is significant flexibility in allowing material with higher percentages of fines provided it meets the requirements of the 404(b)(1) guidelines that dredged material be demonstrated to be compatible with the receiving beach... The 404(b)(1) guidelines allow for site-specific determinations regarding compatibility of dredged-sediment grain sizes with receiving beaches. Dredge or fill discharges must satisfy the requirements of Sec 230.10 of the guidelines which, among other things, mandate that 1) the discharge site must be the least environmentally damaging alternative, 2) discharge will not result in significant degradation of ecosystems based on factual determinations, and 3) that all practicable means must be employed to minimize for adverse environmental impacts.

Thus, provided that the sediments are shown to have contaminants in concentrations that would result in significant ecological degradation, that no other environmentally less damaging alternative disposal site exists, and that all practicable mitigation measures have been employed, unconfined aquatic disposal of dredged materials into the nearshore environment, even for purposes of beach nourishment, may be authorized. Both the CDFG and USEPA have stated that, notwithstanding their concerns over the high fines content of the bay sediments, these agencies will not formally object to the proposed nearshore disposal of the dredged materials being undertaken under the USACE's existing FCWA Section 404 permit. However, both agencies have also stated that the applicant must investigate other disposal options, including but not limited to offshore disposal at the HOODS facility or landfill disposal, for any future maintenance dredging to be conducted under subsequent Corps authorizations.

With respect to potential impacts to marine organisms from chemical contaminants within the dredged materials, Pacific Affiliates submitted on behalf of the Harbor District a Sediment Sampling Plan that was approved by the EPA and the Army Corps of Engineers on December 7, 2004. Analytical requirements for this project were recommended by the EPA's Dredging and Sediment Management Team and the U.S. Army Corps of Engineers. The guidelines were set forth in the Inland Testing Manual for Tier II Sediment Physical and Chemical evaluation. The sampling was conformed to the strict guidelines set by the EPA. The composite sampling methods were instructed by the EPA and were followed and recorded in the Sediment Analysis Plan.

Between January 19 and February 7, 2005 core samples were collected from Woodley Island Marina and from the beach disposal site. Representative samples were collected at the proposed dredge project depths for each site. Samples were submitted to ToxScan Labs for the required analysis. The analysis included testing for grain size, percent solids, total mercury, total organic carbon (TOC), total petroleum hydrocarbons (TPH),

total volatile solids (TVS), metals, semi-volatile organics, polychlorinated biphenyls (PCBs) and speciated butyltins in sediment. The results from the 2005 testing were compared to the testing results conducted between August 6th and August 13th, 1996 in order to determine changes in the quality of the sediment over time.

Five sampling sites along the Eureka waterfront and Woodley Island Marina were identical in sampling locations in 1996 and 2005. Therefore, these sites were chosen for comparison. The result indicated that most sampled compound concentrations have decreased over time in those locations. Mercury concentrations decreased at all marina sampling locations. Metal and TVS concentrations also decreased at all sampling locations. TPH concentration decreased at four of the sites. Testing results for TOC showed decrease or no change in concentrations since 1996. At all sampling sites, the concentrations of most semi-volatile organic compounds decreased. PCBs were not detected at any of the tested marina sites.

Army Corps of Engineers staff has not raised any concerns in regards to the suitability of the dredge spoils for near shore ocean disposal. In the Army Corps of Engineers request for formal Section 7 consultation from the National Marine Fisheries dated February 8, 2005 it was stated that, "Water quality impacts associated with the disposal of dredged material at the spit would be short-term, localized and minor. Historically, the dredged material at Woodley Island Marina showed modest elevation of Cr and Ni, which are not uncommon in sediment." Testing results from 2005 indicated the same trend. Woodley Island Marina Cr concentration were in the range 150-160 mg/kg. The Army Corps also stated that, "Concentration of PAH were not significantly elevated. PCBs were not detectable at a detection of 0.01 mg/kg. Chloro pesticides have not been tested in the berth, given the paucity of agriculture in the area and the fact that previous testing (detection limit 2µg/kg) in the Federal channel did not detect pesticides; there is no reason to expect significant presence. The Federal channel maintenance material characterization of 1995 through 2001 was similar in character and did not detect Dioxin." Based upon the testing results of 2005, no significant change was noticed in the quality of the sediment at the dredging sites.

In their review of the chemical analysis of the sediments proposed for dredging (see Exhibit No. 10), staff from the U.S Environmental Protection Agency found, with respect to the dredged materials originating from the Harbor District's marina areas:

> The sediment quality (in terms of chemical contaminant levels) at most of the facilities tested is similar to that found in 1996... Sediments proposed to be dredged from all of the facilities evaluated in the April 1, 2005 Pacific Affiliates Sediment Sampling Analysis report... are suitable for unconfined aquatic disposal without further testing.

As part of their FCWA Section 401 certification for the proposed maintenance dredging project (see Exhibit No. 10), the North Coast Regional Water Quality Control Board

found, provided specific conditions were applied to the maintenance program, the proposed dredging would comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 (" Toxic and Pretreatment Effluent Standards") of the Clean Water Act [33 USC Subsection 1341 (a)(1)], and with other applicable requirements of State law. The attached conditions require that:

- Best Management Practices be employed for turbidity control, including the use of a cutter-suction dredge and ocean disposal within the surf zone during the time of year when background turbidity levels are expected to be high and dissipation of the spoils slurry is expected to be rapid.

- No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete washings, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature, other than that authorized by this permit, be allowed to enter into or be placed where it may be washed by rainfall into waters of the State. When operations are completed, any excess material or debris, including concrete washings, shall be removed from the work area and disposed of properly. No rubbish shall be deposited within 150 feet of the high water mark of any stream.

- Fueling, lubrication, maintenance, operation, and storage of vehicles and equipment not result in a discharge or a threatened discharge to waters of the United States. At no time shall the applicant use any vehicle or equipment which leaks any substance that may impact water quality. Staging and storage areas for vehicles and equipment must be located outside of waters of the United States.

- Project activities comply with provisions in the North Coast Region Water Quality Control Plan (Basin Plan).

- Creation of pollution, contamination, or nuisance, as defined by Section 13050 of the California Water Code, is prohibited.

- The suspended sediment load of surface waters in Humboldt Bay or the Pacific Ocean not be altered in such a manner as to cause a nuisance or adversely affect beneficial uses.

- Dredging and sediment disposal activities not cause the turbidity of Humboldt Bay to be increased more than 20 percent above naturally occurring background levels.

- The project site be subject to visitation and assessments by Regional Water Board staff to document compliance with the certification.

- A copy of this permit be provided to the Contractor and all subcontractors conducting the work, and be in their possession at the work site.

- Aerial photos of the surf zone disposal location and the shoreline from the mouth of the Eel River to the mouth of the Mad River be taken before, during, and after the project to provide visual evidence of the effects of the discharge and the natural ocean water conditions along the shoreline. Aerial photos of this stretch of shoreline shall be taken within one week prior to discharge, within two weeks after discharge begins, approximately mid way through the project and within two weeks after the discharge ends. A report containing the aerial photos shall be submitted to the Regional Board within 30 days of the end of the project.

- If, at any time, an unauthorized discharge to surface waters occurs, or any water quality problem arises, the project be cease immediately and the Regional Water Board be notified promptly.

Jack Gregg PhD of the Commission's Water Quality Unit technical staff has also reviewed the results of the sediment sampling taken in February-March 2005 (see Exhibit No. 11). Based upon his review of the analyses, Dr Gregg found as follows:

> The Sampling and Analysis Plan was approved by the Corps of Engineers and the USEPA. The number of samples and compositing scheme are comparable to maintenance dredging projects in San Francisco Bay and ports of Los Angeles and Long Beach. The suite of analytes and detection limits were comparable to sediment characterization in other parts of the state, although it is becoming more common to analyze Polychlorinated Biphenyls (PCBs) congeners instead of Arochlor mixtures, providing a basis for any required additional testing. The levels of organic chemicals detected at most of the dredging sites are fairly common in harbors and below the levels where environmental effects would be expected...[1]
>
> While dispersive dredged material disposal sites lead to uncertainty in the ultimate fate and transport of dredged materials, they also can significantly reduce the exposure of aquatic organisms and humans to residual amounts of pollutants. The low levels of PAHs, PCBs and organic tins in the material to be dredged will be mixed with bay water (80% water to 20% sediment) during the dredging process and moved out of the bay waters by the suction dredge. While there is potential for exposure with a beach disposal site, the reason that disposal has been allowed at this site to date

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[1] In a footnote within his review memo, Dr. Gregg observed, "Most of the detections of Polycyclic Aromatic Hydrocarbons (PAHs) and PCBs are below the Effects Range Low of the NOAA National Status and Trends Program Sediment Quality Guidelines. PAHs are commonly found in harbors associated with creosote pilings. PCBs are typically residuals of past industrial process."

> is the high energy environment of an open ocean beach on the Eureka coastline. Fine grained sediments will immediately be separated from sandy material and moved with prevailing currents. While the fine grained material may move as a plume in the nearshore environment initially, it will rapidly disperse out of the surfzone and will continually be diluted with cleaner water.

With respect to potential impacts to human health from the discharging of sediments tainted with specific contaminants of federal and state concern into the nearshore environment, particularly as regards water-related recreational activities such as swimming and surfing, Dr. Gregg found:

> Just as it is not prudent to swim near flowing storm drains, the highest risk to swimmers and surfers at the disposal site would be close to the end of the disposal pipe. Based on the chemistry data provided it is highly unlikely that an individual could be exposed to significant amounts of pollutants from the dredged material once it has been mixed with water both at the dredging and disposal sites…
>
> One of the comment letters presented to the Coastal Commissioners on the day of the hearing for this project[2] made several comparisons of levels of Polycyclic Aromatic Hydrocarbons (PAHs) to regulatory thresholds that are not appropriate for this exposure scenario. Specifically the letter compared the levels of benzo(a)pyrene to both Preliminary Remediation Goals and to No Significant Risk Levels. Preliminary Remediation Goals (PRGs) are published by the USEPA Region IX and are risk-based concentrations use for site "screening". While they could be used as initial cleanup goals, they are not meant to be regulatory cleanup standards. The PRGs are levels in soil considered to be protective for humans over a lifetime of exposure. They are not appropriate for comparison to the Humboldt dredging project conditions where humans will not be exposed to the in-situ sediments concentrations of benzo(a)pyrene and where exposure to the much diluted concentrations in the sediment/water slurry will be for a relative short period of time. Even the most exposed humans (probably surfers) would only be exposed to the diluted dredged material a few hours per day over the course of the project, much different than the exposure considered in developing the PRGs.
>
> This comment letter also compared the benzo(a)pyrene levels to the No Significant Risk Level from 22 California Code Regulations Section 12705(c) (Safe Drinking Water and Toxic Enforcement Act of 1986 also

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[2] Letter from Law Offices of Sharon Duggan dated August 11, 2005 (see Exhibit No. 12).

> known as Proposition 65). Again this value is set to express the risk of exposure to the chemical over a lifetime of exposure.

In his conclusion, Dr, Gregg stated:

> Based on the sediment chemistry and toxicity data provided I recommend that the Coastal Commission find that this project, as conditioned, will not significantly impact coastal resources.

Notwithstanding the conclusions reached by the USEPA, North Coast Regional Water Quality Control Board, and Commission's water quality unit staff regarding the low risk of impacts to coastal resources and human health associated with the proposed nearshore disposal of the dredged bay sediments, the full effects of the beach disposal of dredged materials with physical and chemical compositions differing from that of the receiving beach and sub-tidal area remain, to some degree, unknown. Of particular concern is the lack of monitoring that has been performed outside of the immediate discharge area with respect to the persistence of the dredged materials and any effects such lingering deposits may have on marine biological resources. This concern appears repeatedly in the various comments from the reviewing agencies:

> EPA continues to object to surfzone placement of material from any of these facilities based on the inappropriately fine-grained nature of the sediments. On this basis, we expect to object to any extension or reissuance of the existing permit once it expires, particularly given the availability of the Humboldt Open Ocean Disposal Site (HOODS) just offshore of Humboldt Harbor. We strongly urge the City of Eureka and the Humboldt Bay Harbor, Recreation and Conservation District to begin taking appropriate steps now, financial and otherwise, to plan to use HOODS or other alternatives to nearshore discharge of fine grained sediment by the time maintenance dredging of these facilities is needed again. – Brian Ross, USEPA

> The dredge spoils that will be discharged in this project are 85% silt and clay an only 15% sand, yet the receiving beach is 95% sand. The Department does not believe that a beach composed of 95% sand is suitable for placement of dredge spoils with 85% fines due to the potential adverse effects on benthic habitat, fish, and wildlife. Therefore, the Department recommends that the nearshore subtidal habitat be monitored, in addition to the intertidal habitat, for substrate changes. Aerial photography and water quality monitoring for suspended solids would be helpful to show where the plume is traveling. In addition, the Department recommends that the applicants' (*sic*) begin planning for other methods of disposal for future dredging events. The Humboldt Open Ocean Disposal Site (HOODS) was designed and approved to accept fine0grain sediments

> and has the capacity to received these sediments. Upland disposal is another option which could be pursued. – Vicky Frey, CDFG
>
> CDF&G staff and USEPA staff have indicated that the applicants may proceed with the project, including shoreline disposal, but that the sediment may not be suitable for beach disposal in the future mainly due to the small grain size and the lack of studies to evaluate the effects of disposal on the near shore sea floor habitat. These agencies have stated that they will object to any future projects involving shoreline disposal. CDF&G staff suggested that the applicants should either begin working now on identifying alternative methods for sediment disposal from future projects, or else plan to use the designated Humboldt Open Ocean Disposal Site in the future. This may be the last opportunity for the applicants to thoroughly study the effects of this type of disposal. If the applicants intend to pursue shoreline disposal for future projects, Regional Water Board staff recommend that the applicants work with USEPA and CDF&G to develop a plan to monitor and study the discharge and near shore subtidal habitat during implementation of this project. – Dean Pratt, NCRWQCB

To monitoring the effects of the dredged materials on coastal resources, the applicant has proposed to perform pre- and post-disposal aerial photography of the area between the Eel and Mad Rivers, in conformance with the requirements of by the North Coast Regional Water Quality Control Board as set forth in their FCWA Section 401 certification. However, given the difficulties commonly encountered with interpretation of aerial photographs of aquatic areas, especially when the intent is to track the extent and movement of exotic materials which may closely resemble in-situ shoreline materials, the Commission does not believe that monitoring the dispersal of dredged materials solely by photogrammetry would constitute an adequate monitoring program. Accordingly, the Commission attaches Special Condition No. 1. Special Condition No. 1 requires the applicant, prior to issuance of the coastal development permit for the maintenance dredging to submit, for the Executive Director's review and approval, a comprehensive monitoring plan that, in addition to aerial photography of the disposal site vicinity, includes bathymetric surveying, sediment core sampling, and measurements of turbidity generated by the release of the sediments into ocean waters. The plan is also to identify remediative measures to be taken if the dredged materials persist or accumulate near the discharge area or if the turbidity exceeds 20% of naturally occurring background levels

Project Impacts on Terrestrial Biological Resources

The Commission notes that with regard to potential biological impacts to the land based portion of the project, the placement, use, and removal of the portion of the pipeline that would cross the Samoa Peninsula could have potential impacts on certain rare or endangered species. However, except for the area below the mean high tide line, the

segment of the pipeline crossing the Samoa Peninsula is entirely within the coastal permit jurisdiction of the County of Humboldt. The County has approved a separate coastal development permit for this portion of the overall project. Therefore, the "project" before the Commission does not include the portion of the overall project that crosses the Samoa Peninsula.

Nonetheless, the County and the lead agency determined that the environmental effects of the pipeline on the terrestrial habitat of the Samoa Peninsula would not be significant. The pipeline would cross through areas where beach layia (Layia carnosa) is growing. Beach layia is a federally listed endangered species. In addition, the Western snowy plover (Charadrius alexandrinus nivosus) has been known to nest in the spring along portions of the upper beach areas of the Samoa Peninsula. However, the project as proposed would minimize impacts to these species and reduce them to a level of insignificance. The pipeline would be routed along old trails to avoid the beach layia and would be placed by hand in sensitive areas to minimize disturbance from construction. In addition, a qualified biologist would be present before and during laying of the pipeline to identify and evaluate the status of the beach layia populations in order to avoid the plants and minimize impacts to beach layia seedlings. A field survey and biological assessment of snowy plovers conducted by Mad River Biologists concluded that the proposed outfall area was not suitable habitat for the Western Snowy Plover given the narrow band of possible nesting area along the top of the wave slope and presence of debris and predators and "For these reasons, placement and removal of the pipeline should have no significant effect on the Western Snowy Plover." The County approved the coastal development permit with conditions requiring that the proposed mitigation measures to protect beach layia be implemented by the applicants.

(9) Introduction of Hydrogen Sulfide.

A final potential impact of the project involves the introduction of hydrogen sulfide during dredging extraction. Hydrogen sulfide (H_2S) is a metabolic byproduct of the anaerobic breakdown of organic material within bay sediments. Hydrogen sulfide is an extremely toxic and irritating gas. Hydrogen sulfide is regulated by Occupational Safety and Hazards Administration (OSHA) and has a permissible exposure limit of 20 parts per million (ppm) ceiling concentration and a peak exposure limit of 50 (ppm) for no more than 10 minutes if no other measurable exposure occurs. Inhalation of concentrations of 500-1000 (ppm) will cause rapid unconsciousness and death through respiratory paralysis and asphyxiation. The human health risks of exposure to H_2S are highest in enclosed spaces rather than in an open-air setting. Toxicity of H_2S to plants and animals varies greatly by organism.

The human olfactory mechanism is capable of detecting the presence of hydrogen sulfide gas in quantities as low as two parts per billion (ppb). Levels of hydrogen sulfide detected in the immediate proximity of dredge discharge lines used at the Santa Cruz Harbor, similar to that proposed by the District and City, have been measured at less than eight ppb. This concentration is far below the acceptable level of concentration determined safe

for an individual working eight hours per day under constant exposure to hydrogen sulfide gas.

The use of a suction dredging, in place of other methodologies, such as hopper, dragline, or clam-shell dredging, would minimize the amount of sediment disturbance and introduction of H_2S into bay waters. The concentrations of H_2S within the dredged materials would be further diluted by the introduction of seawater to create the dredge spoils slurry and by the initial mixing with ocean waters upon their discharge. No further mitigation would be required to reduce the potentially significant adverse impacts of hydrogen sulfide exposure of humans, and fish and wildlife to less than significant levels.

Conclusion

Therefore, the Commission finds that the development as proposed and conditioned includes mitigation measures, where feasible, to minimize significant adverse environmental effects of the project consistent with Section 30233.

3. Project Alternatives.

The third test set forth by the Commission's dredging and fill policies is that the proposed dredging or fill project must have no feasible less environmentally damaging alternative. Although the Commission determines that the proposed project will have no significant impacts, the Commission has also considered the various identified alternatives, and determines that none of them provides a feasible less environmentally damaging alternative. A total of four possible alternatives have been identified, including: (a) disposing of the dredged material at the offshore HOODS disposal site; (b) disposing of the dredged material at the upland "Superbowl" disposal site; (c) extending the spoils slurry outfall offshore to the closure depth; and (d) the "no project" alternative.

a. Disposal at Offshore HOODS Disposal Site.

As noted previously, the federal government has designated an offshore disposal site for dredged material known as the "HOODS" disposal site. The site is between three and four miles offshore of Humboldt Bay, beyond sovereign state lands in federal waters. The Commission concurred with a Coastal Zone Management Act consistency determination made by the U.S. Environmental Protection Agency for designation of the site in 1995 (CD-72-95). Over 800,000 cubic yards of dredged material is disposed of annually at the site, mostly from maintenance dredging of Humboldt Bay navigational channels performed by the U.S. Army Corps of Engineers. A possible alternative to the proposed project that would avoid even the temporary impacts on habitat at the surf zone disposal site would be to dispose of the dredged material at the HOODS site. During the 1998 maintenance dredging project three state and federal agencies commented to the Corps of Engineers in response to the Corps' public notice of its consideration of federal permits for the project that this alternative should be used to avoid impacts

to habitat at the surf disposal zone. The Commission acknowledged the concerns raised by the commenting agencies, but found that, overall, the impacts of the project as proposed would be less than the alternative of using the offshore HOODS disposal site.

The primary reason the Harbor District and the City of Eureka chose not to propose disposal of the dredged material from the maintenance dredging proposed under coastal permit applications 1-96-60 and 1-96-61 at the HOODS site is the comparative costs of these options. Based on cost estimates provided to the HBHRCD by dredging companies, the proposed project with surf zone disposal would cost approximately $2 million. The cost of disposing of the material at the HOODS site would nearly double the total cost to $3.8 million.

Whether or not the extra cost makes use of the HOODS site infeasible, for a variety of reasons the alternative is not environmentally less damaging. As explained by the applicants' consultants in response to the 1998 reviewing agency comments, use of the HOODS disposal site would actually increase turbidity impacts in and around the dredging areas.

Turbidity would be increased near the dredging area because a different method of transferring the dredged material to the disposal site would have to be used. Given the three to four mile distance to the HOODS site across open ocean waters, a pipeline obviously cannot be used to discharge dredged material at the HOODS site and the use of vessels must be relied upon.

Use of a suction dredged is required given the close quarters within the mooring areas where the dredge must operate. The water content of the material dredged with the suction dredge approaches 80%. While the high proportion of water in the slurry material does not present a problem for transferring the dredged material to the disposal site through a contained pipelined, the high water volume does present a problem for transferring the dredged material by barge or hopper dredger to an offshore disposal site. When using hoppers or barged to transport the dredged material, a large proportion of the 80% water volume of the dredged material must be decanted and the resulting water discharged during vessel loading to accommodate the solids (20%). This decanting would take place in or near the dredge area to allow for efficient filling of the vessels. Significant turbidity can be expected to result from the discharge of the supernatant water, which contains significant amounts of sediment. In fine-grained material (only approximately 15% is coarse sandy material), the degree of turbidity will be greater than if the material had a more sandy composition.

The dredging areas are located along the shallower margins of the bay which include sensitive shallow water habitats, including extensive eelgrass beds. The eelgrass beds provide important spawning, rearing, feeding, and resting habitat for

numerous fish and other estuarine species. In addition, the shallow waters of Humboldt and Arcata Bays support extensive commercial shellfish operations that can be adversely affected by high turbidity. Given the more sensitive nature of the estuarine habitat within Humboldt Bay as compared to the ocean surf zone, the overall impact of use of the HOODS site is much greater than the impacts of the project as proposed.

The Commission notes that the HOODS site is well suited to the separate channel dredging projects performed by the CORPS, as the turbidity impacts are proportionately less. The content of the material dredged from the channels in those projects is quite sandy and the channel work areas are generally well flushed. Both of these factors reduce the turbidity impact of the CORPS channel dredging projects.

b. Disposal at "Superbowl" Disposal Site.

Dredged materials have previously been deposited at an upland disposal site on the Samoa Peninsula known as the "Superbowl" site (see Exhibit No. 3), adjacent to the Old Eureka Airport/Samoa Dragstrip. The 60-acre site was used for disposal of sediments in the North Bay Channel Improvement Project of 1978-79 and for other projects in the late 1970s. The site reportedly has capacity available, and the dredged material could be piped to the disposal site, thus avoiding turbidity impacts at the dredge site as the proposed project would.

However, since the Superbowl site was last used, portions of the site have transformed into freshwater marsh habitat and sensitive plant species have colonized portions of the site. These areas are considered to be environmentally sensitive habitat areas, and are protected by the Coastal Act. Use of the site for the proposed project would likely result in some permanent disturbance of the habitat. As the habitat values at the surf zone disposal site are less significant, and the impacts of the use of the surf zone disposal site would be temporary, the Commission finds that the alternative of using the Superbowl for dredge disposal is not an environmentally less damaging alternative.

With respect to other past disposal sites, the former L-P upland disposal site, now owned by the Harbor District, is located southwest of the intersection of State Route 255 and New Navy Base Road has been used for numerous maintenance dredging operations at L-P's Samoa facilities and other North Bay dredging projects. The North Coast Regional Water Quality Control Board (NCRWQCB) rescinded the waste discharge requirements for this site on June 28, 2001. The District has no plans to excavate or use this property for significant spoils disposal in the future as the site has a limited capacity of approximately 120,000 cubic yards (yd^3) and would only be suitable for disposal of dredge spoils from smaller scale berthing dock areas, such as from the small waterways and slips within the

King Salmon area. No other upland properties exist within a reasonable distance from the dredging sites that would have adequate capacity to receive the volume of dredge materials that would originate from the City and District docking and marina facilities, would not result in greater environmental impacts to coastal resources, or have owners willing to either sell or allow the District and City to conduct landfill dredge material disposal on their properties.

c. Deepwater Extension of Spoils Pipeline Outfall.

Another potential project alternative would entail the extension of the dredged materials pipeline outfall from its proposed location within the upper subtidal ocean waters to the "depth of closure," the depth of water at which sediments will be transported to deposition in offshore depths rather than to be cyclically returned onto the beach and/or transported laterally along the shoreline by longshore currents. For Northern California, the depth of closure has been estimated to be an approximately 40-foot depth of water.

The option to extend the discharge line further out beyond the breaker zone to further ensure littoral cell dispersal of the sediments would be difficult to implement due to the added complications associated with in maintaining the pipeline and the cost associated with constructing a temporary structure to support the pipeline. The wintertime surf zone represents a high-energy environment that makes it very difficult to maintain a pipeline in place. The proposed outfall location that has historically been used on the beach slope itself requires continual maintenance during disposal operations due to the beach erosion that occurs during high energy storms.

The costs of constructing a temporary structure to hold the pipeline in place and off of the ocean surface would be significant and would be likely more environmentally damaging. Such a structure in the surf zone would require ongoing monitoring, maintenance, and repair that would be expose dredging personnel to hazardous surf conditions.

In addition, such temporary discharge pipeline extensions have been unsuccessfully attempted in the past. During work at the Louisiana-Pacific Corporation's Samoa Pulp Mill to extend the permanent outfall line when a temporary flexible pipeline was being used to convey process effluent, L/P attempted to place the pipeline, beyond the surf zone. Despite the pipeline being substantially larger in diameter and longer then the pipeline being used for the maintenance dredging project, and arguably more stable, the plastic pipeline became repeatedly twisted and kinked in the surf surge, resulting in a significant losses to its discharge capacity. As a result, the effort was subsequently aborted.

Moreover, based on biological and physical monitoring of the Samoa Beach disposal site conducted between 1998 and 2002 following the last dredging episode, the mixing and dispersal of the fine materials was determined to be effectively accomplished by the deposition of the material in the near shore zone. Because of these turbulent conditions, the fine particles remain in suspension and do not settle in the nearshore surf zone. During the winter storm season, the wave energy prism is very wide and extends beyond the surf zone to deep waters. Once the materials reach deeper waters, turbulent conditions are reduced and the fine particles are allowed to settle out of suspension within the water column. Photographs taken during the 1998 episode indicate that significant sorting of the spoils occurs, with the larger, heavier sand fragments settle in the near shore zone and fine material being transported offshore. Thus, extension of the spoils pipeline outfall to deeper water areas is not an environmentally less damaging feasible alternative.

d. The No Project Alternative.

The no project alternative would entail that no maintenance dredging of the accumulated sediments within the Woodley Island Marina be undertaken. With no dredging, there would be no impacts from dredging and no impacts from disposal. However, without maintenance dredging, the berthing areas would eventually silt in to the point that they could no longer be used for commercial fishing vessels or recreational boating, except by the shallowest draft vessels. The berthing areas would likely be forced to close, and the boaters who currently use the site would be displaced. As there are limited mooring facilities in Humboldt Bay, many of these users would be forced to leave this region of the coast. Such a result would be contrary to policies of the Coastal Act. As discussed previously, commercial fishing and recreational boating are given high priority under the Coastal Act and the Coastal Act policies call for the protection of these uses and the facilities needed to continue these uses. Therefore, the Commission finds that the no project alternative is not a feasible less environmentally damaging alternative.

4. Maintenance and Enhancement of Estuarine and Marine Habitat Values

The fourth general limitation set by Sections 30231 and 30233 on dredging and fill projects is that any proposed dredging or fill project must maintain and enhance the biological capacity of the habitat, where feasible.

As discussed above, although the project as proposed would have adverse impacts on habitat at both the dredging and disposal sites, the impacts will not be significant. By avoiding significant impacts to coastal resources, the project will maintain the biological productivity and functional capacity of the habitat. However, there will be a continuing need for maintenance dredging of the bay in the future. Based on past dredging patterns, maintenance dredging will likely be required at roughly ten-year intervals. Therefore, the

Commission finds that it is necessary for the impacts of the proposed surf disposal to be monitored to ensure that if unexpected impacts were to occur, the results could be used during the evaluation of future dredging projects by the Commission and other agencies. Consideration of the information provided by a monitoring report would help ensure that such future projects are conducted in a manner that will maintain and enhance the biological capacity of the habitat.

The Commission notes that it has relied, in part, on information provided by the 1998 monitoring report prepared after the last episode of surf zone dredge material disposal in its evaluation of the current permit application. Accordingly, the Commission attaches Special Condition No. 1 which requires that prior to issuance of the permit, the applicant submit a surf zone disposal monitoring plan for the review and approval of the Executive Director. The plan must provide for monitoring over a five year period of: (1) the pattern and rate of dispersal of material deposited at the site (2) sediment characteristics at the disposal site and at the control site; (3) the species composition and abundance of intertidal invertebrates in areas directly affected by the disposal of dredge spoils and at a control site near the disposal area over a three year period; and (4) the effects of the surf zone disposal on fisheries.

As conditioned, the Commission finds that the proposed project is consistent with the requirements of Sections 30231 and 30233 of the Coastal Act that any proposed dredging or fill project must maintain and enhance the biological productivity and functional capacity of the habitat, where feasible.

5. Use of Dredged Material for Beach Replenishment

The fifth test set forth above is that dredge spoils suitable for beach replenishment be transported to appropriate beaches or into suitable long shore current systems. One of the concerns of any dredging project is the loss of sand to the particular longshore current cell and the possible resulting downcoast erosion. When possible, sandy dredge spoils should be disposed in a location that will ensure downcoast disposal.

The sediment to be dredged consists of typically fine-grained material composed of approximately 15% sand, 45% silt, and 40% clays. Only the sand portion of the material is suitable for beach nourishment, and given the small component of sand in the dredged material, the applicants do not claim that the project can be characterized as a beach nourishment project. Nevertheless, given the proposed location and timing the project to be conducted during the winter months when a high background level of turbidity exists along the open ocean shoreline, the proposed disposal site is an appropriate beach for beach replenishment. As the site is within the surf zone, the material would be discharged where the sand component may enter the long shore current system, although the beach in question is not in a sand-starved condition.

Furthermore, the site is sufficiently far from the mouth of Humboldt Bay that discharges at the site would not contribute to a mounding or shoaling problem within a navigational area. Therefore, the Commission finds that the small component of the material to be dredged that is suitable for beach nourishment will be transported to an appropriate beach consistent with the sand supply requirements of Section 30233 of the Coastal Act.

D. Permit Authority, Extraordinary Methods of Repair and Maintenance, Shoreline Protection Structures.

Coastal Act Section 30610(d) generally exempts from Coastal Act permitting requirements the repair or maintenance of structures that does not result in an addition to, or enlargement or expansion of the structure being repaired or maintained. However, the Commission retains authority to review certain extraordinary methods of repair and maintenance of existing structures that involve a risk of substantial adverse environmental impact as enumerated in Section 13252 of the Commission regulations. Section 30610 of the Coastal Act provides, in relevant part:

> *Notwithstanding any other provision of this division, no coastal development permit shall be required pursuant to this chapter for the following types of development and in the following areas: . . .*
>
> *(d) Repair or maintenance activities that do not result in an addition to, or enlargement or expansion of, the object of those repair or maintenance activities; provided, however, that if the commission determines that certain extraordinary methods of repair and maintenance involve a risk of substantial adverse environmental impact, it shall, by regulation, require that a permit be obtained pursuant to this chapter.* [Emphasis added.]

Section 13252 of the Commission regulations provides, in relevant part:

> *(a) For purposes of Public Resources Code section 30610(d), the following extraordinary methods of repair and maintenance shall require a coastal development permit because they involve a risk of substantial adverse environmental impact:...*
>
> *(3) Any repair or maintenance to facilities or structures or work located in an environmentally sensitive habitat area, any sand area, within 50 feet of the edge of a coastal bluff or environmentally sensitive habitat area, or within 20 feet of coastal waters or streams that include:*
>
> *(A) The placement or removal, whether temporary or permanent, of rip-rap, rocks, sand or other beach materials or any other forms of solid materials;*

> *(B) The presence, whether temporary or permanent, of mechanized equipment or construction materials.*
>
> *All repair and maintenance activities governed by the above provisions shall be subject to the permit regulations promulgated pursuant to the Coastal Act...* [Emphases added]

The rock slope revetment repair portion of the proposed project is a repair and maintenance project because it does not involve an addition to or enlargement of the levee. The approximately 100-foot linear portion of the levee to be repaired is only a small portion of the shoreline protective works that extends for more than a 1,750 lineal feet along the shoreline of the Woodley Island Marina. Although certain types of repair projects are exempt from CDP requirements, Section 13252 of the regulations requires a coastal development permit for extraordinary methods of repair and maintenance enumerated in the regulation. The proposed rock slope revetment repair involves the removal of dislodged riprap from an environmentally sensitive habitat area (Humboldt Bay) and related replacement of these materials onto a shoreline protective structure that is situated within 20 feet of the coastal waters of Humboldt Bay, utilizing mechanized equipment. The proposed repair project therefore requires a coastal development permit under Sections 13252(a)(3)(A) and (B) of the Commission's administrative regulations.

In considering a permit application for a repair or maintenance project pursuant to the above-cited authority, the Commission reviews whether the proposed method of repair or maintenance is consistent with the Chapter 3 policies of the Coastal Act. The Commission's evaluation of such repair and maintenance projects does not extend to an evaluation of the conformity with the Coastal Act of the underlying existing development.

Although not located within the berthing and docking locations proposed for dredging, eelgrass (Zostera marina) beds occupy an approximately 50 to 100 square-foot area near the westernmost slips of the marina. These patches of eelgrass could be impacted by the proposed rock slope revetment repairs if materials or personnel were to enter the area and either trample, crush, or up-root the plants during repositioning of the dislodged shoreline protective materials.

To minimize the potential adverse effects to eelgrass from this portion of the project the Commission includes within Special Condition No. 3 provisions requiring that care be taken to avoid trampling or uprooting areas of eelgrass during the repair and maintenance work. In addition, the special condition includes provisions for training contractor personnel as to the presence and identification of eelgrass outcroppings within the vicinity of the subject shoreline protective works repair. These measures would reduce potential cumulative impacts to the estuarine resources of Humboldt Bay associated with the rock slope revetment repair.

E. Public Access.

Coastal Act Section 30210 requires that maximum public access opportunities be provided when consistent with public safety, private property rights, and natural resource protection. Coastal Act Section 30211 requires that development not interfere with the public's right of access to the sea where acquired through use. Coastal Act Section 30212 requires that public access from the nearest public roadway to the shoreline and along the coast be provided in new development projects, except in certain instances, as when adequate access exists nearby. In applying Sections 30210, 30211, and 30212, the Commission is limited by the need to show that any denial of a permit application based on those 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 public access.

The objectives of the project to ensure that vessels can continue to use berthing areas at the Woodley Island Marina for mooring will help maintain recreational boating as a form of public access to Humboldt Bay and the ocean. In addition, as the project would have a duration of only a few months, as all portions of the disposal pipeline and the dredging area itself would be sufficiently marked to warn boaters of its presence, and all portions of the line crossing navigational channels would be submerged to the bottom where they would not block vessel passage, the project will have no significant effect on vessel access during project construction. Similarly, as the portion of the pipeline that crosses the Samoa Peninsula and the disposal site would also be marked and lighted during the several months of the winter that the project would be undertaken and would not preclude passage up and down the peninsula by public access users, the project will have no significant impact on public access use of the Samoa Peninsula. Furthermore, as the dredging would only maintain the existing mooring and maneuvering areas, the proposed project will not create new vessel mooring opportunities that could draw more people to the waterfront and create more demand for public access.

Therefore, for the reasons indicated above, the proposed project will not have any significant adverse effect on public access. The Commission finds that the proposed project, which does not include any new provision for shoreline public access, is consistent with the public access policies of the Coastal Act.

F. Visual Resources.

Section 30251 of the Coastal Act requires 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. Furthermore, Section 30240(b) of the Coastal Act states that development in areas adjacent to parks and recreation areas shall be sited and designed to prevent impacts

which would significantly degrade those areas, and shall be compatible with the continuance of those recreation areas.

Maintenance dredging and related spoils disposal operations present a temporary intrusion into visual resource areas and occur generally along the disposal line within Humboldt Bay, or in proximity to the spoils disposal outfall on the North Spit of the Samoa Peninsula. The bay is generally visible from numerous public viewing areas. These include the Eureka waterfront itself, the A.M. Bistrin Memorial Bridge crossing of State Route 255 over Humboldt Bay, and along the bay shorelines of Indian Island and the Samoa Peninsula. In addition the dredge spoils disposal outfall would be visible from the open ocean and sandy beach areas in the immediate vicinity of the discharge line. In terms of scenic areas of importance, the City of Eureka and the County of Humboldt LCPs both designate views of Humboldt Bay and the Pacific Ocean from specified viewing points as visual resource areas.

The project elements that would occur within the public viewshed include: (1) the dredge platform itself, along with any floating sections of pipe; (2) sections of flexible pipe placed across land segments to transport sediment for nearshore disposal, and (3) the ocean beach portions of the pipeline. However, views of these facilities would not result in a significant impairment of scenic resources, for the following reasons: (1) the presence of the dredge would simply blend in with other vessels already visible and should not be counted as an adverse impact, and (2) the surface-lain flexible piping for transporting dredge spoils slurry would be similarly temporary and vary in locale, depending on the particular disposal destination of the dredged materials.

Therefore, given its temporary and transient nature, and the fact that the proposed dredging and disposal activity would not significantly alter scenic public views within and along the shorelines of Humboldt Bay along the route of the dredge spoils transmission pipeline or along the open ocean shoreline in proximity to the dredge spoils pipeline outfall, the Commission finds that this project is consistent with Sections 30251 and 30240(b) of the Coastal Act.

G. U.S. Army Corps of Engineers Review.

The project is within and adjacent to a navigable waterway and is subject to review by the U.S. Army Corps of Engineers (Corps). 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.

On December 10, 1997, pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, the U.S. Army Corps of Engineers (Corps) issued Permit

No. 22215N to the Harbor District. The permit, which expires on March 15, 2008, is for maintenance dredging of accumulated sediment in the Outer and Inner Reaches of the Eureka Channel in Humboldt Bay, and for surf disposal of dredged material in the Pacific Ocean off the Samoa Peninsula, Humboldt County, California. The first dredging episode took place in 1998, and permitted the District to excavate and dispose of 67,155 cubic yards (cy) of dredged materials. Although SONCC coho salmon was listed as threatened at the time the permit was issued, the Corps did not consult NOAA Fisheries. However, a special condition of each permit required completion of Section 7 Endangered Species Act (ESA) consultation, prior to authorization of any additional dredging episode. Accordingly, based upon the recommendations received from NOAA Fisheries as contained in a biological opinion pending release in late July – late August, the terms and conditions of Permit No. 22215N may be changed through a Letter of Modification Issued by the Corps.

To ensure that the second round of dredging activities ultimately approved by the Corps is the same as the project authorized herein, the Commission attaches Special Condition No. 4 which requires to applicant to demonstrate that it has all necessary approvals from the U.S. Army Corps of Engineers for the proposed project. The applicant is required to inform the Executive Director of any changes to the project by the Corps and not implement the changes until the applicant obtains a coastal development permit amendment.

H. Consultations by National Marine Fisheries Service.

Pursuant to Section 7 of the Federal Endangered Species Act (16 USC 1531) and the Magnuson-Stevens Fishery Conservation and Management Act (50 CFR 600), the U.S. Army Corps of Engineers Federal Clean Water Act Section 404 individual permit is subject to prerequisite and interim consultations with the National Marine Fisheries Service (NOAA Fisheries) regarding the project's potential environmental effects on fisheries. As discussed in other sections of this report, draft comments and recommendations developed to date by NOAA Fisheries with respect to protecting the environmentally sensitive resources that might be adversely affected by the dredging project have been incorporated either in the project description by the applicant or attached as special conditions to the subject permit.

To ensure that the final biological opinion ultimately issued by NOAA Fisheries addresses the same project operational procedures and restrictions authorized herein, the Commission attaches Special Condition No. 5. Special Condition No. 5 requires the applicant to submit, for the review of the Executive Director, a copy of the final biological opinion issued for the dredging project, and notification of any project changes required by the Corps in response to the recommendations within the final opinion. The Executive Director would determine whether an amendment to the coastal development permit would be required before the dredging work could commence.

Furthermore, as set forth in Section 2080.1 of the California Fish and Game Code, for any threatened or endangered species co-listed under both the Federal Endangered Species Act and the California Endangered Species Act, for which the responsible federal resource agency has issued an incidental take permit, the California Department of Fish and Game (CDFG) is directed to conduct a consistency review of that federal agency's action with CESA. To assure that the Commission is apprised of the results of such a consistency review, Special Condition No. 6 has been attached to the permit's approval requiring that, prior to issuance of the subject coastal development permit, the permittee provide a copy of the CDFG's determination. Furthermore, if the CDFG is compelled to issue a take permit pursuant to CESA, the applicant shall similarly submit a copy of the state incidental take permit project and the project shall not commence until the Executive Director has reviewed the take permit to determine whether an amendment to the coastal development permit is required.

I. California Environmental Quality Act.

Section 13096 of the Commission's administrative regulations requires Commission approval of coastal development permit applications to be supported by a finding showing the application, as modified by any conditions of approval, to be consistent with any applicable 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.

The Commission incorporates its findings on conformity with the Chapter 3 policies of the Coastal Act 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. As specifically discussed in these above findings, which are hereby incorporated by reference, mitigation measures that will minimize or avoid all significant adverse environmental impacts have been required. As conditioned, there are no other feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impacts which the activity may have on the environment. Therefore, the Commission finds that the proposed project can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.

V. EXHIBITS

1. Regional Location Map
2. Vicinity Map
3. Mid-Humboldt Bay Maintenance Dredging Overview Map
4. Project Narrative and Site Plan

5. Woodley Island Marina Bathymetric Survey
6. Woodley Island Marina Maintenance Dredging Cross-sections
7. Dredge Spoils Pipeline Route Map
8. Dredge Spoils Nearshore Disposal Site Map
9. Executive Summary – 1998 Dredge Spoils Disposal Site Monitoring Report
10. Review Agency Correspondence
11. Memo from Jack Gregg PhD, CCC Water Quality Unit
12. General Correspondence

ATTACHMENT NO. 1

STANDARD CONDITIONS:

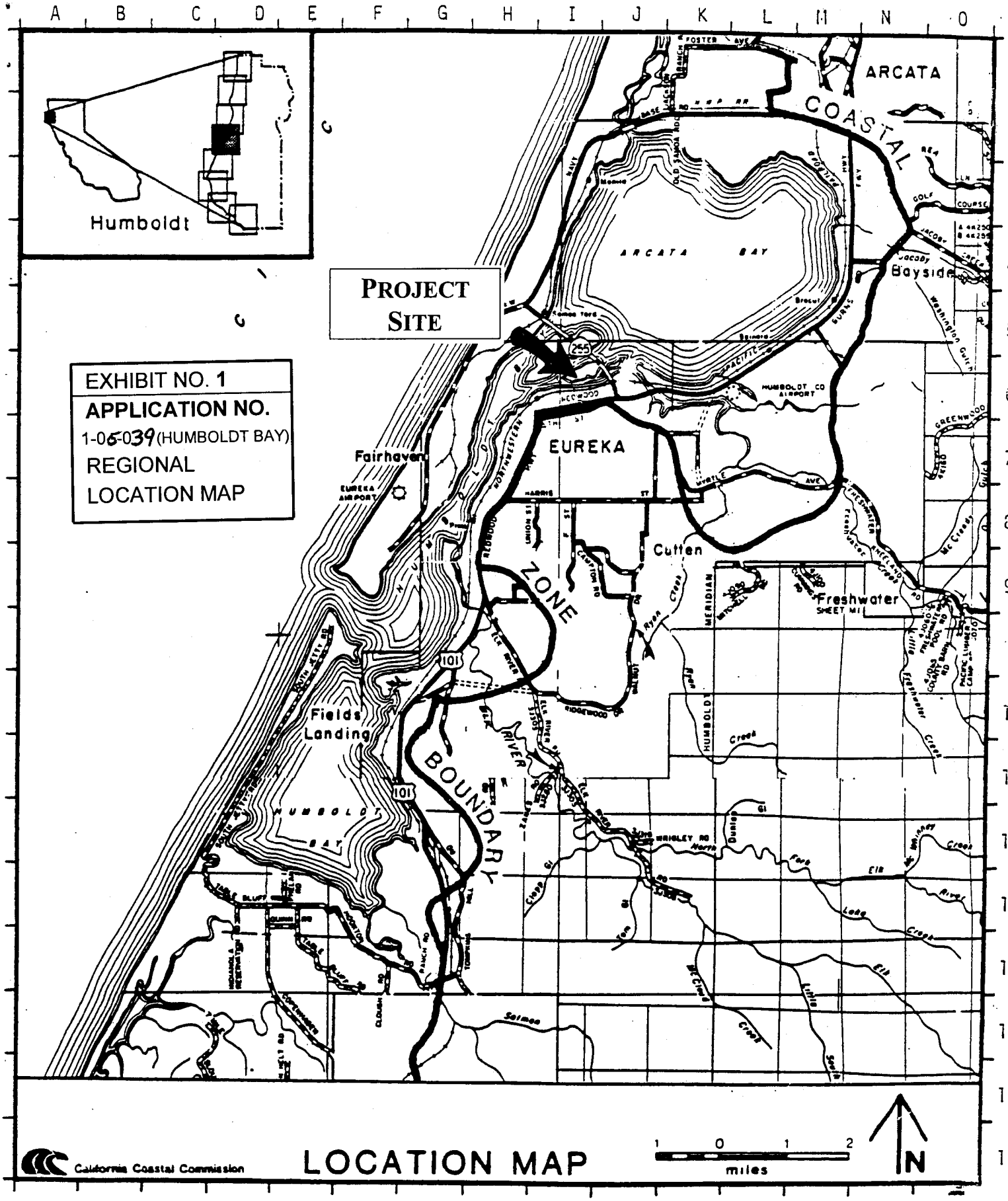
1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

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.



County of Humboldt

Sheet 4 of 8

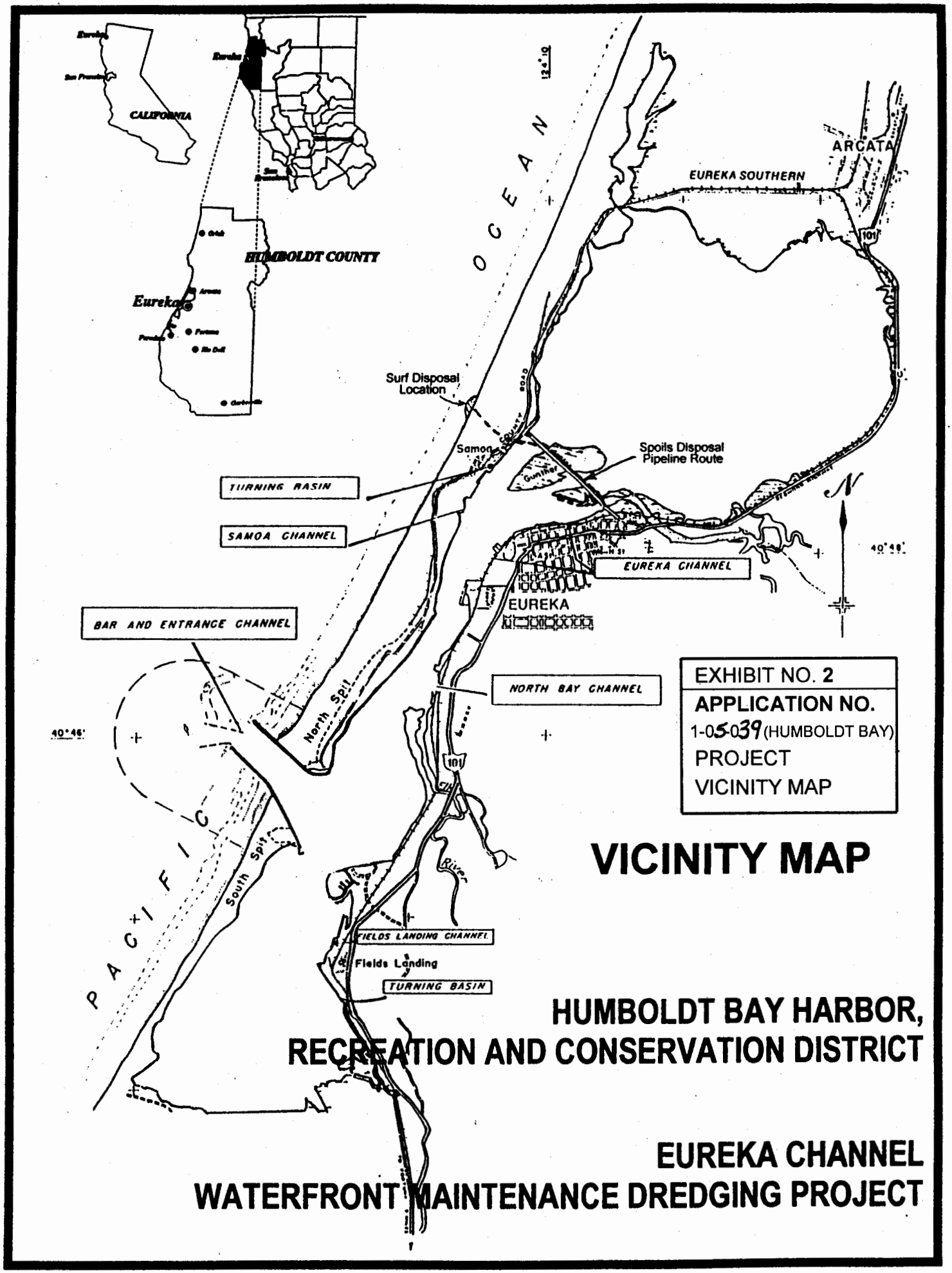
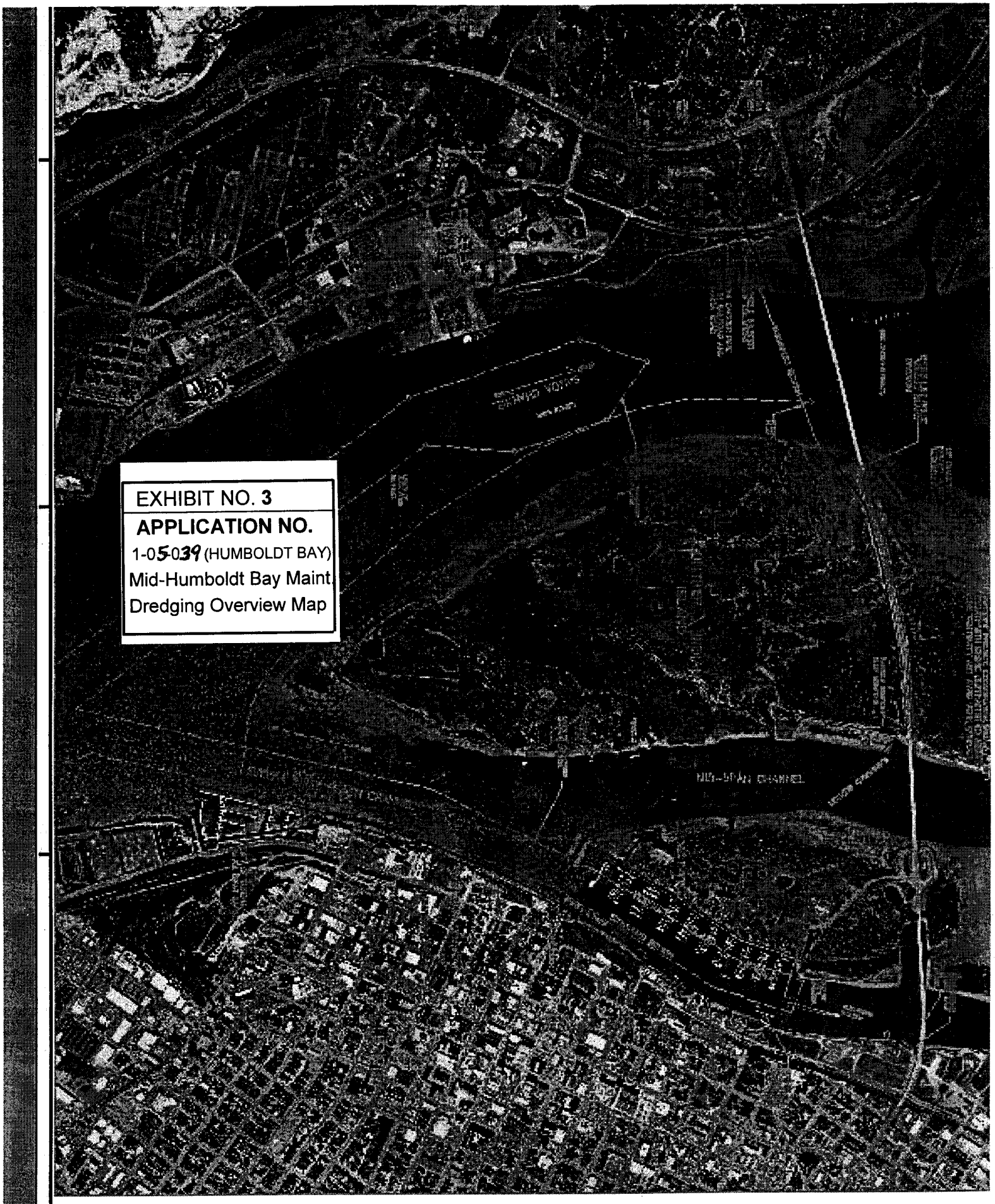


EXHIBIT NO. 2
APPLICATION NO.
1-05-039 (HUMBOLDT BAY)
PROJECT
VICINITY MAP

VICINITY MAP

HUMBOLDT BAY HARBOR, RECREATION AND CONSERVATION DISTRICT

EUREKA CHANNEL WATERFRONT MAINTENANCE DREDGING PROJECT



HEET

HBHRCD & CITY OF EUREKA
MAINTENANCE DREDGING
EUREKA INNER REACH
EUREKA, CA

OVERHEAD VIEW

DAVID L. SCHNEIDER

PACIFIC APPLIATH

HUMBOLDT BAY HARBOR, RECREATION AND CONSERVATION DISTRICT MAINTENANCE DREDGING OF THE WOODLEY ISLAND MARINA

CALIFORNIA COASTAL COMMISSION PERMIT APPLICATI

EXHIBIT NO. 4
APPLICATION NO.
1-05-039 (HUMBOLDT BAY)
PROJECT NARRATIVE
& SITE PLAN
(Page 1 of 7)

Project Description

History

Woodley Island Marina, constructed for the Humboldt Bay Harbor, Recreation and Conservation District in 1978, berths approximately 320 small craft recreational, pleasure and fishing boats on the Eureka Inner Reach Channel of Humboldt Bay. The marina, located on the southern shore of Woodley Island, is directly north across the Channel from the Carson Mansion area of the Historic Old Town District of Eureka.

The marina is configured so that the western two-thirds of the berths (Transient Dock - Dock F) can accommodate vessels having drafts of up to 12 feet and the eastern one-third (Docks G - I), vessels of drafts less than 10 feet. The design depths of -14 feet Mean Lower Low Water (MLLW) and -10 feet Mean Lower Low Water (MLLW) compliment the two areas respectively. Both berthing areas were designed with a one foot maximum overdepth allowance below the depths specified above. The marina was last dredged in 1998 when 120,000 cubic yards of accumulated sediment was removed by cutter-suction dredge and disposed of in the surf along the Samoa Peninsula. Prior to that in 1987, 140,000 cubic yards of accumulated sediment was removed, also by cutter-suction dredge and disposed of in the surf along the Samoa Peninsula. The dredging performed in 1987 was the first since the original construction dredging of the marina in 1978.

The Eureka Inner Reach Channel receives upland run-off from Ryan Slough and Freshwater Slough (Freshwater Creek) and tidal run-off from the Arcata Bay. The winter upland run-off from Ryan and Freshwater Sloughs accounts for the bulk of the Marina's sedimentation, with the Inner Reach Channel becoming very turbid during storm events.

Purpose of Project

The project is required in order to maintain adequate berthing depth for the 300+ vessels which moor within the existing berthing areas of the Woodley Island Marina, as well as insure the continued safe and convenient operation of this moorage facility. The project will be conducted in combination with the maintenance dredging of the Eureka Small Boat Basin and Waterfront properties. The project is scheduled to commence in November of 2005 and terminate on March 31, 2005, pending approval of all permits.

Proposed Project

The dredge site, maintenance dredging scenario and the dredge disposal pipeline route proposed are the same as that utilized under the 1998 permits. The current proposal involves the maintenance dredging and disposal of an estimated 120,000 cubic yards of accumulated sediment from the marina's berthing areas. The majority of the material to be dredged is within the western two-thirds of the marina, Transient Dock - Dock F, as

currently 96,000 cubic yards of material is present above the maximum project line of -15 feet MLLW. The shallower 10 foot berths, Docks G - I, account for the remaining 24,000 cubic yards of sediment to be dredged. This project also involves minor rock slope protection maintenance, inasmuch as rocks that have migrated down the slope into the dredging prism will be reinstated to their original position.

Project Description

The proposed project involves the maintenance dredging and disposal of an estimated 120,000 cubic yards (including overdredge) of accumulated sediment from the moorage areas of the Woodley Island Marina located on the Inner Reach Channel of the Humboldt Bay Channel System.

Dredging is proposed to be conducted by a cutter-suction pipeline dredge, the same method utilized during the 1987 and 1998 maintenance dredging projects. Approximately 70% if the material to be dredged by this project is fine, silt, and clay. The remainder is about 30% sand. The small cutter-suction dredge used in 1987 and 1998 had the ability to maneuver itself between the main docks and finger slips of the marina and remove dredge material from beneath the areas covered by the floats. The utilization of cutter-suction dredge method of dredging is also the best technology for reducing the turbulence at the dredge location, as the cutter head loosens the sediment and a constant suction is maintained by the pump, drawing the loosened sediments and much of the turbid water into the pipeline. Turbid water will be present at the dredge site and down current, (depending upon the tide) but in significantly lower quantities than if a hopper dredge or clamshell dredge were used. The timing of the project, during the winter months, will effectively reduce the turbidity caused by dredging due to the significant turbidity within the Inner Reach Channel from upland run-off caused by storm events.

The schedule of dredging will be circulated to all tenants of the marina so that boats can be moved as necessary to facilitate the complete maintenance dredging activity.

From the cutter-suction dredge at the marina the spoils slurry will be pumped through a semi-flexible disposal line to the designated disposal area. The spoils line is floated across minimal access open water areas and weighted and submerged where crossing navigable waters. The route of the spoils line is the same as that used in the 1987 and 1998 dredging projects. It is proposed that the spoils line for this project will leave the marina running parallel to the north side of the Inner Reach Channel and upon reaching the Samoa Bridge, will proceed west along the Highway 255 right-of-way. On the Woodley and Indian Island portions of the pipeline route the line will be positioned off the westbound shoulder through an Encroachment Permit from Cal-Trans . Where the line enters the mid-span channel and the Samoa Channel, it will be submerged to allow the passage of vessels. At no point in the pipeline route will the line cross the federally authorized shipping channels of Humboldt Bay. Floating sections of the line will be marked with buoys and lights to warn vessels of its presence for the duration of the project. Booster pumps stationed in the pipeline to assist in pumping the spoils slurry, will be positioned on Woodley Island to the east side of the center span of the Samoa Bridge at the western approach and on the shore of the west side of the Samoa Channel approximately 700 feet south of the Samoa Bridge. From the Samoa booster, the spoils line will be routed through an existing carrier pipe beneath Old Samoa Road,

then above ground across the eastern end of the Louisiana Pacific Corporation upland disposal site to the edge of New Navy Base Road. From this point the line will pass through another existing carrier pipe beneath New Navy Base Road, then run above ground along existing off road vehicle roads to the surf zone of the Samoa Peninsula (Pacific Ocean). Through the dune area to the surf, the pipeline will be covered where utilized roads or trails intersect the route, and marked to warn the public of its presence. At the beach discharge area, signs and barricades will be posted to warn the public of the temporary conditions.

The dredging scenario and the pipeline route described are the same as utilized under the 1987 and 1998 permits. Pipeline route areas disturbed by placement, maintenance and removal of the spoils line will be reclaimed to as near pre-project conditions as possible, and as per conditions of all individual permits.

Surf disposal of spoils has been utilized for several dredging projects and most recently during the 1998 maintenance dredging project and is again proposed herein. Surf disposal during the Winter (2005) will reduce the effects of turbidity within the surf zone of the Samoa Peninsula. During this period of the year, the Eel and Mad Rivers are typically discharging significant amounts of turbid water into the ocean proximal to the surf zone discharge point. The higher sediment-laden levels of the ocean waters, experienced during winter months, aids in reducing the effects of suspended concentrations of sediments at the spoils discharge point relative to the seasonal background levels. Higher wave action during the winter also helps to distribute the discharged sediments through the surf zone.

The winter dredge/disposal period effectively reduces turbidity at the dredge sites, especially within the Eureka Inner Reach Channel of Humboldt Bay where the predominance of turbid run-off from uplands of the North Bay drain. The minor quantity of suspended sediment generated within the Eureka Inner Reach Channel by the cutter-suction pipeline dredge would not be detectible over the diminished background water quality for a good portion of the winter rainy season. Dredging within the Eureka Inner Reach Channel during the summer and fall (May - October) would result in noticeable effects to water quality.

The spoils discharge area will be posted at several locations as to the activities and duration of the project. Barricades and lighting will be provided and maintained throughout the project to further inform users of the Peninsula of the temporary activities. The discharge area will be inspected and maintained daily to ensure the proper public notification of the project activities and safe access to the North Spit Recreational area.

Through the shallows and unnavigable waters of the Bay, the spoils line will be floated. Where the line will cross navigable waters of Humboldt Bay, weights will be attached to submerge the line and permit the normal passage of vessels. Buoys and lights mark the line throughout the bay crossings to prevent navigational hazards to mariners. A Notice to Mariners is also filed with the U.S Coast Guard for the duration of the project, advising marine travelers of the project activities within navigable waters.

Sections of plastic disposal line will be floated into position within the Bay, or placed in position using a small rubber tired tractor within the upland right-of-ways, then heat

fused to prevent leakage of spoils. Cleanup of any leakage will be the responsibility of the dredging contractor. Regular inspection and maintenance of the entire length of the line is carried out during the project to ensure integrity and prevent leaks or breaks.

The dredge and booster pumps rely on diesel engines for the pumping of sediment. They generate the equivalent noise and exhaust of a semi-tractor rig when in operation. Booster pumps are located away from residences for the prevention of noise related impacts. All fuel burning engines will be fitted with appropriate muffler systems and maintained throughout the project. Dredging operations along the Eureka Waterfront are within areas of regular industrial and commercial activities. The diesel engine of the dredge should not cause significant noise increases above the typical daily operational levels of the project area. Other than live-aboards at the Eureka Public Berthing Facility (Small Boat Basin) and the Woodley Island Marina, there are no other residences on the immediate Eureka Outer and Inner Reach Waterfront that would be affected by the proposed project.

Mobilization of the spoils line, booster pumps and dredge is expected to take ten to fifteen days and involve eight to ten full time employees. Following contractor mobilization, the dredging contractor's crew will consist of five to six full time employees. Three or four persons will split the twenty-four hour shift work operating the dredge and the remaining employees will conduct the maintenance activities of the operation. Dredging operations, especially those encumbered by a specific seasonal operating period, run six to seven days a week, twenty-four hours a day. An operational schedule such as this is expected for this project, based upon historic requirements and present informal consultation with the California Regional Water Quality Control Board.

Upon completion of the project, the general public will enjoy efficient access to Humboldt Bay and the important recreational and commercial facilities thereon.

Dredge Material Disposal Specifics

A sediment sampling plan was approved by the Regional Water Quality Control Board (Mr. Bill Rodriguez) and performed by Pacific Affiliates for the 1998 and the 2005 maintenance dredging project. In short, the final determination on suitability for surf dispersion was that, as characterized, contaminant levels were within acceptable limits for ocean dispersion. A copy of that "Report of Sediment Sample Analysis" is appended herein this permit application as well as a copy of the Chemical Analysis, Toxicity Evaluation and Bioaccumulation Testing of Sediments from Humboldt Bay for prepared for the U.S. Army Corps of Engineers by Toxcan, Inc. and Kinnetic Laboratories, Inc.
Review of the volumes of existing sediment testing data from 2005 of Humboldt Bay and the proposed dredge sites has not indicated any areas of concern. The surf disposal site has been repeatedly monitored, and again the data does not reflect any areas of concern. Since the last sampling, there have not been any vectors, which could have effected a change. As such, re-sampling will not result in any variance of the current samples/data and therefore no new sampling is proposed for this project.

Estimated Cost of Development

This project and the Woodley Island Marina Maintenance Dredging Project are scheduled to be a cooperative project between the City of Eureka and the Humboldt Bay Harbor, Recreation and Conservation District in an effort to share project related costs, better serving the citizens of the region.

The total estimated cost of development for this project is $1,250,000.00. The City's portion is estimated to be $500,000.00 which will be paid for by the City's Redevelopment Funds and the Humboldt Bay Harbor, Recreation and Conservation District's portion is estimated to be $750,000.00.

Directions to the Site

To access the Woodley Island dredge site from Highway 101, North or South, proceed into the City of Eureka to the Highway 255, Samoa Bridge Exit (near the north end of Eureka). Head west on Highway 255 across the southern span of the Samoa Bridge and exit to the Woodley Island Marina, where the southern span touches down upon Woodley Island.

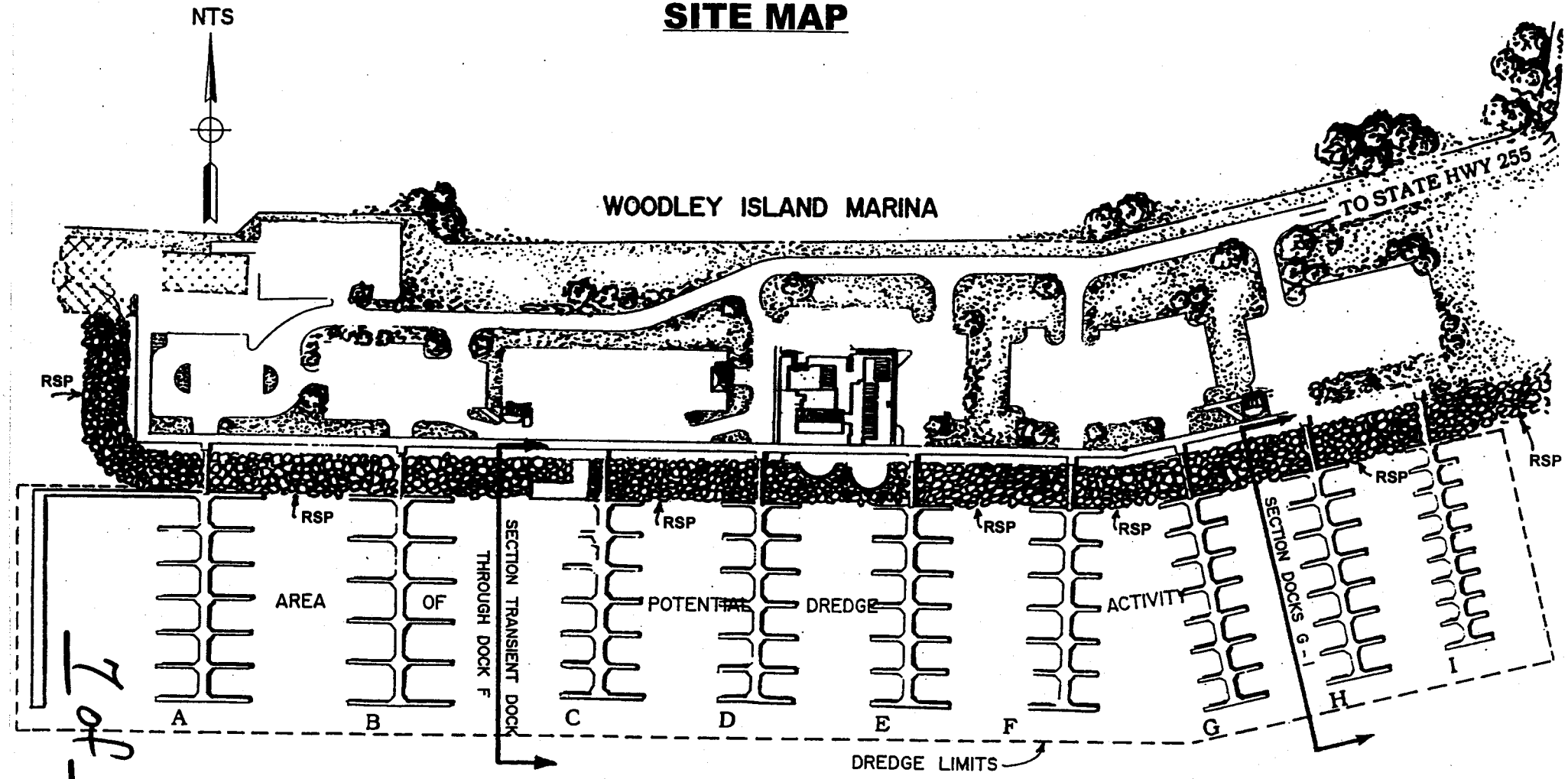
To access the proposed spoils pipeline route and beach disposal site, continue northwest across the Samoa Bridge (the disposal pipeline is proposed to be placed along the westbound shoulder) to the Highway 255, New Navy Base Road Intersection. The pipeline will exit the Bay at a point approximately 700 feet southwest of the west span of the bridge, enter carrier pipes beneath Old Samoa and New Navy Base Roads. The spoils line will exit the carrier pipes at a point approximately 300 feet southwest of the Highway 255 New Navy Base Road intersection and continue overland on existing off road vehicle roads to the ocean beach of the Samoa Peninsula.

Woodley Island Marina Rock Slope Protection

The contactor shall excavate all rock slope protection (RSP) that has slid down the slope and into the dredging prism. Extracted rock slope protection shall be re-placed on the slope as directed by the Project Engineer. An excavator or approved piece of machinery capable of lifting a 500 lb rock at fifty feet shall be the minimum size employed for the RSP relocation.

The RSP replacement task will occur during low tide. During the last dredging cycle it was found that a lot of RSP had migrated into the dredging prism and it caused problems for the cutter head of the suction dredge. The rocks will be removed as we dredge and then placed back on the slope. Since the rocks will be "hunted" for with an excavator in the dredging prism, it will be under the direction of the engineer on a time and materials basis.

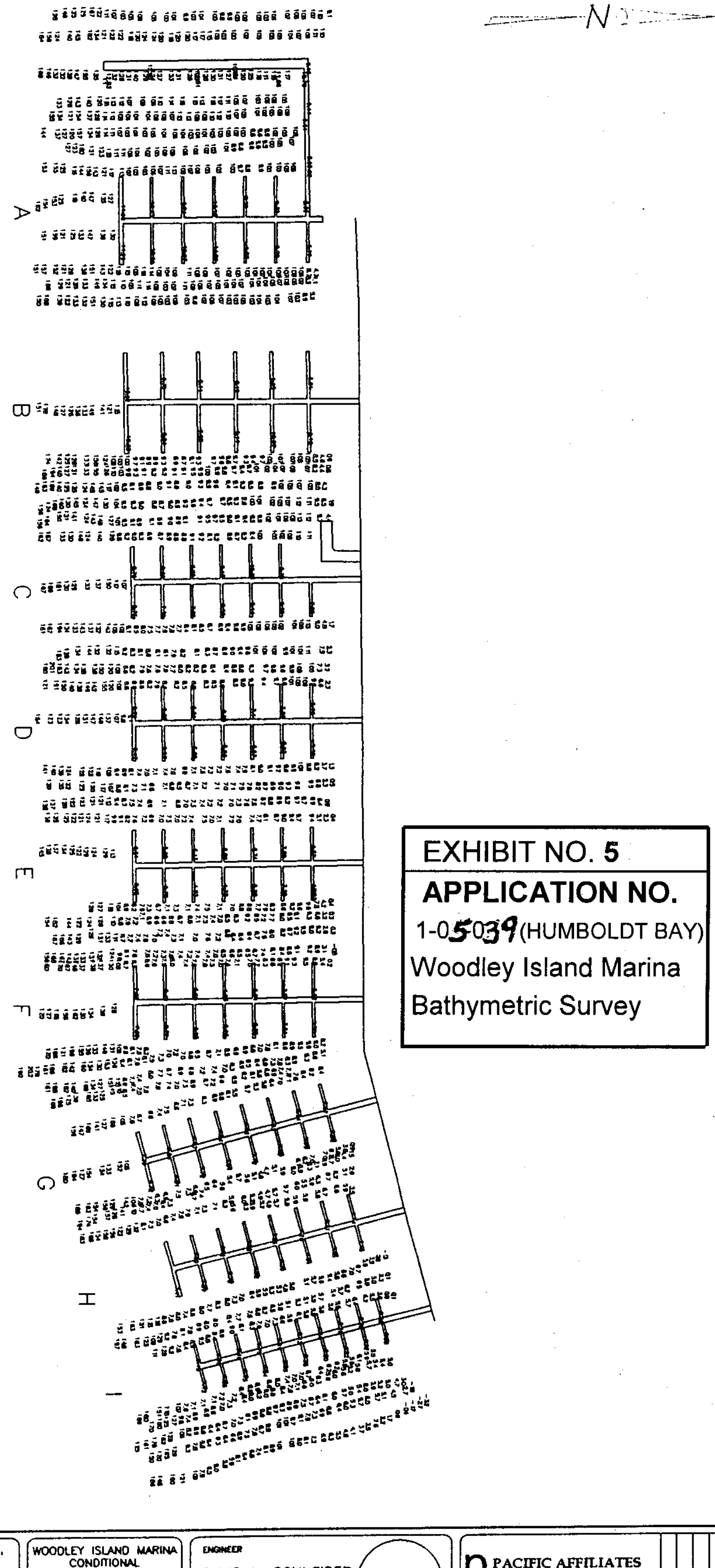
SITE MAP



HUMBOLDT BAY
EUREKA INNER REACH CHANNEL

7 of 7

PACIFIC AFFILIATES, INC.
A CONSULTING ENGINEERING GROUP
990 W. WATERFRONT DRIVE • EUREKA • CA • 95501
PHONE: (707) 445-3001 • FAX: (707) 445-3003



SURVEY NOTES

SURVEYED BY PACIFIC AFFILIATES CONSULTING ENGINEERS ON FEBRUARY 4,23,26, 2004. TIDE STATION FOR SURVEY PACIFIC AFFILIATES BENCHMARK AT WOODLEY ISLAND MARINA FISHERMAN'S LOADING DOCK IN EUREKA, CA. ELEV. 15.54' MLLW.

SOUNDINGS ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT. VERTICAL DATUM UTILIZED – MEAN LOWER LOW WATER (MLLW).

HORIZONTAL CONTROL REFERENCED TO NAD 27, CALIFORNIA ZONE 1, LAMBERT CONFORMAL PROJECTION. SURVEY REPRESENTS THE CONDITIONS ON THE DATE SURVEYED (FEBRUARY 4,23,26, 2004).

DRAWINGS NOT TO BE USED FOR NAVIGATION. ONLY CHANNEL CONDITION AT DATE OF SURVEY.

EXHIBIT NO. 5

APPLICATION NO.

1-05039 (HUMBOLDT BAY)

Woodley Island Marina Bathymetric Survey

SHEET NUMBER: C-1.1

Date: June 14, 2004

Scale: 1" = 80' U.O.N.

Drawn by: Travis Schneider

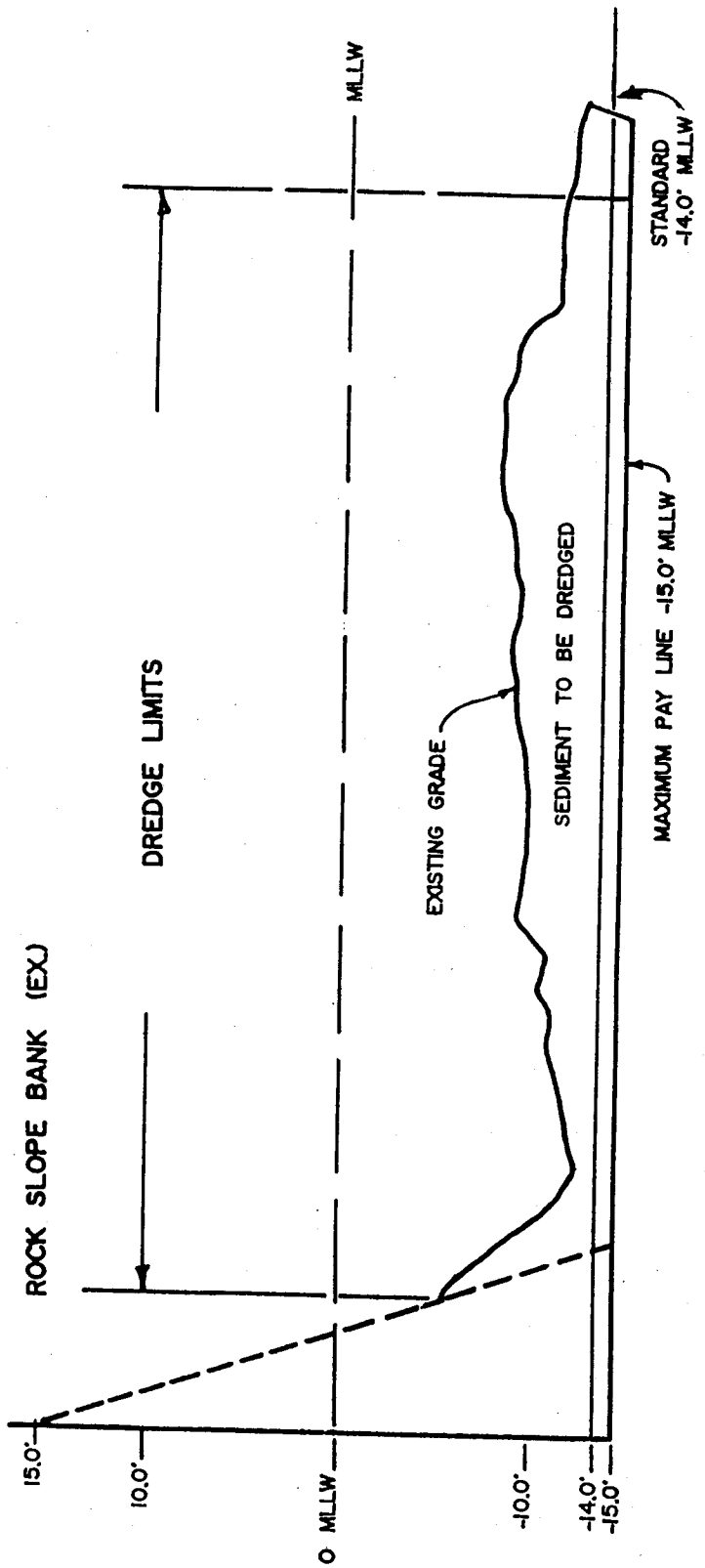
HUMBOLDT BAY HARBOR, RECREATION AND CONSERVATION DISTRICT
P.O. BOX 1030
EUREKA, CA 95502-1030

WOODLEY ISLAND MARINA CONDITIONAL BATHYMETRIC SURVEY

ENGINEER
DAVID L. SCHNEIDER
990 WEST WATERFRONT DRIVE
EUREKA, CA 95501
(707) 445-3001

PACIFIC AFFILIATES
A CONSULTING ENGINEERING GROUP
990 WEST WATERFRONT DRIVE
EUREKA, CA 95501

REVISIONS | BY



SECTION
TRANSIENT VESSEL DOCK - DOCK F

SCALE: HORIZONTAL 1" = 60' VERTICAL 1" = 10'

AREAS MAINTAINED TO -14.0' MLLW

EXHIBIT NO. 6

APPLICATION NO.

1-05-039 (HUMBOLDT BAY)

Woodley Island Marina Maint.

Dredging Cross – Sections

(Page 1 of 2)

SITE 11 **WOODLEY ISLAND MARINA** **Transient Vessel Dock to Dock F**	**PROFILE** Datum: Mean Lower Low Water (MLLW)	**PACIFIC AFFILIATES, INC.** A CONSULTING ENGINEERING GROUP 990 W. Waterfront Drive Eureka, CA 95501

SITE 11

WOODLEY ISLAND MARINA
Docks G to I

PROFILE
Datum: Mean Lower Low Water (MLLW)

PACIFIC AFFILIATES, INC.
A CONSULTING ENGINEERING GROUP
990 W. Waterfront Drive
Eureka, CA 95501

NOTES

SOUNDINGS ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.

SOUNDINGS REFER TO THE DATUM OF MEAN LOWER LOW WATER (MLLW) AT THE LOCALITY. SOUNDINGS ARE REFERENCED TO CALTRANS SURVEY MONUMENT NO. S.C. 22S, ELEV. 8.49' MLLW.

HORIZONTAL CONTROL POINTS FOR HYDROGRAPHIC SURVEYS ARE L.P. PIPE AND COURT HOUSE.

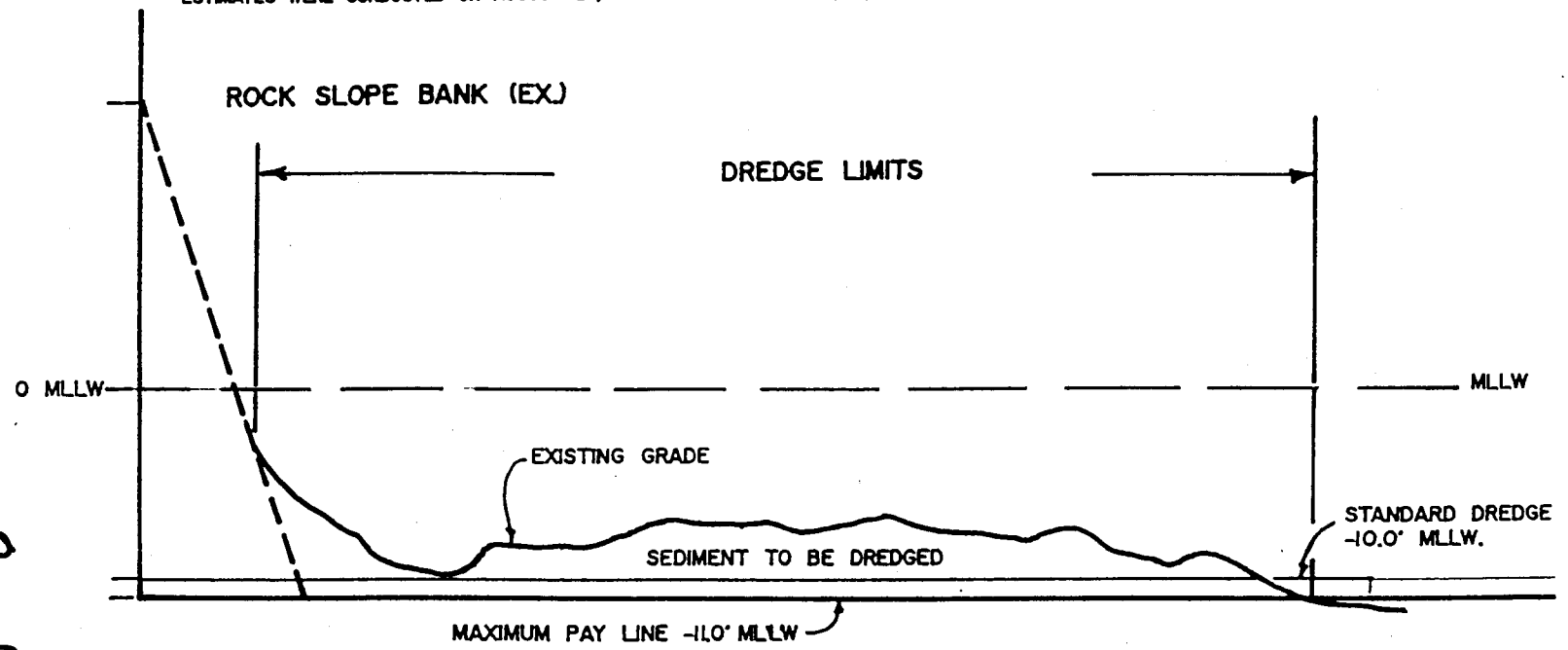
COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE I, LAMBERT CONFORMAL PROJECTION.

BERTHING AREA FROM STATION 66+07 TO THE TRANSITION SLOPE SHALL BE DREDGED TO -14.0' MLLW. MAXIMUM PAY LINE WITHIN AREA IS -15.0' MLLW.

BERTHING AREA FROM TRANSITION SLOPE TO STATION 87+93 SHALL BE DREDGED TO A DEPTH OF -10.0' MLLW. MAXIMUM PAY LINE WITHIN AREA IS -11.0' MLLW.

CONDITIONAL SURVEYS FOR SHOWN SOUNDINGS AND PRELIMINARY DREDGE ESTIMATES WERE CONDUCTED ON AUGUST 23, 1995 AND NOVEMBER 22, 23, 1995.

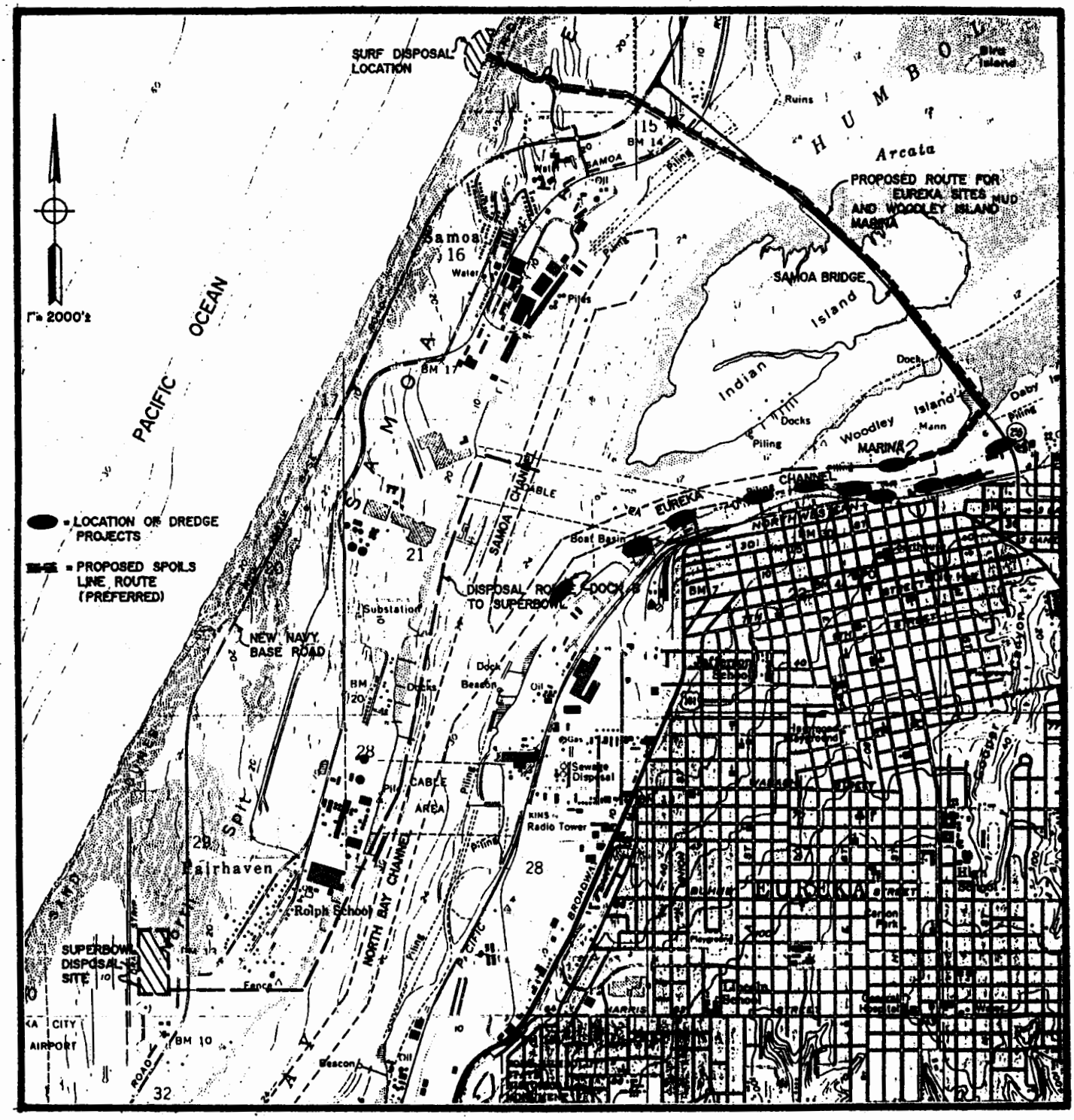
AREAS MAINTAINED
TO
-10.0' MLLW



SECTION
DOCKS G - I

SCALE: HORIZONTAL 1" = 60' VERTICAL 1" = 10'

2 of 2



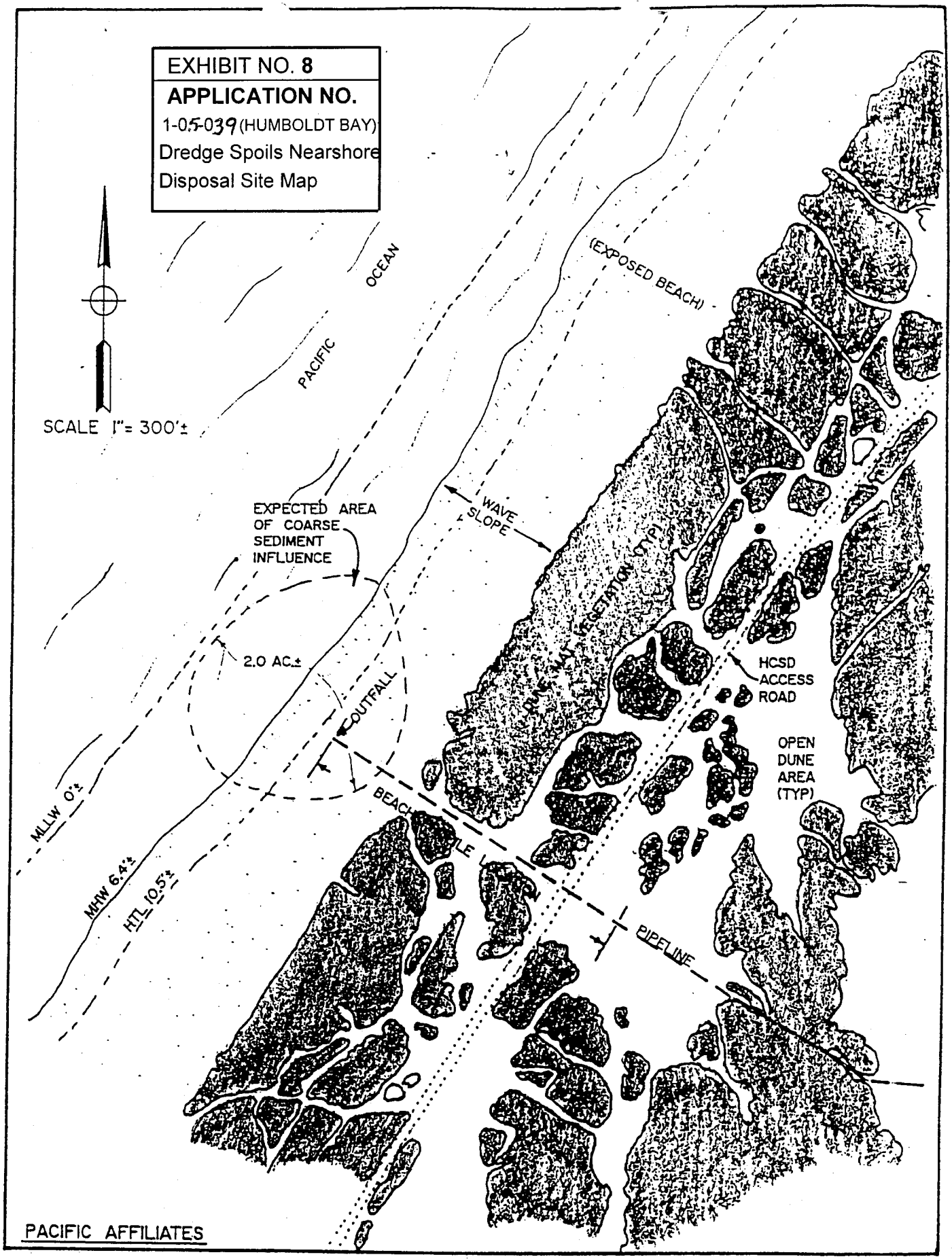
DISPOSAL ROUTE

CITY OF EUREKA & HUMBOLDT BAY HARBOR DISTRICT
WATERFRONT FACILITIES MAINTENANCE DREDGING
HUMBOLDT BAY, EUREKA INNER REACH CHANNEL

COUNTY OF: HUMBOLDT
STATE OF: CALIFORNIA

EXHIBIT NO. 7
APPLICATION NO.
1-05-039 (HUMBOLDT BAY)
Dredge Spoils Pipeline Route Map

PREPARED BY PACIFIC AFFILIATES



SAMOA BEACH SPOILS LINE OUTFALL SITE

CITY OF EUREKA & HUMBOLDT BAY HARBOR DISTRICT
COOPERATIVE MAINTENANCE DREDGING PROJECT

ANNUAL BIOLOGICAL MONITORING REPORT
HARBOR DISTRICT AND CITY OF EUREKA
MAINTENANCE DREDGING PROJECT
SAMOA BEACH, HUMBOLDT COUNTY, CA

1.0 EXECUTIVE SUMMARY

- Approximately 226, 238 cubic yards of dredged materials were pumped via floating pipeline across the bay to the Samoa Peninsula and discharged across the exposed sand beach between January and May, 1998. The discharge pipe was located on the beach just above the high tide line, at approximate latitude of 40° 49' 20" N, longitude 124° 11' 20' W (Figure 1).

- Three transects were established to determine the species composition and abundance of sand beach animals in the immediate area of the dredged materials discharged, at a location nearby, and at a control site some distance south of the discharge point.

- In both pre- and post-discharge periods, the beach fauna was dominated in species composition and numerically by the burrowing crustacean *Excirolana linguifrons* and the burrowing marine worm *Euzonus williamsi* .

- The abundance of burrowing isopods (*Excirolana linguifrons*) and the marine worm *Euzonus williamsi* appears to have been much less in 1988 than we collected in 1998. The abundance of other sand beach animals was comparable in 1988 and 1998.

- Dredged materials were still being discharged across the disposal site during the April sampling interval. All three sites had been affected by winter storm beach erosion. Additionally, the presence of hydrogen sulfide at the discharge transect influenced both occurrence and abundance of animals.

- In the May sampling period we noted a gradual increase in species occurrence and abundance. The severe winter storms that had caused significant erosion on the Samoa Peninsula beaches were no longer a dominant environmental factor.

- In June and July sampling, we encountered about the same number of species at the three sites, but the control site had the highest number of species (11) of the three. Many small *Euzonus williamsi* were collected and it was noted that several of the mole crabs (*Emerita analoga*) were bearing egg masses.

- By the August sampling period the three sites were approaching a level of faunal similarity approximating that found in the January pre-discharge sampling. The reappearance of mole crabs (*Emerita analoga*) in August samples at all three transects and its abundance at the discharge transect indicated that little residual biological effect of dredge spoil disposal could be detected at the discharge point.

EXHIBIT NO. 9
APPLICATION NO.
1-05039 (HUMBOLDT BAY)
Exec. Summary – 1998 Dredge
Dredge Spoils Disposal Site
Monitoring Report

California Regional Water Quality Control Board
North Coast Region
Beverly Wasson, Chairperson

Alan C. Lloyd, Ph.D.
Agency Secretary

http://www.waterboards.ca.gov/northcoast
5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403
Phone: 1 (877) 721-9203 (toll free) • Office: (707) 576-2220 • FAX: (707) 523-0135

Arnold Schwarzenegger
Governor

August 26, 2005

Mr. David Hull
Humboldt Bay Harbor,
Recreation and Conservation District
601 Startare Drive
Eureka, CA 95501

Mr. Mike Knight
City of Eureka
531 K Street
Eureka, CA 95501

Gentlemen:

Subject: Issuance of Clean Water Act Section 401 Certification (Water Quality Certification) for the Humboldt Bay Harbor, Recreation and Conservation District and City of Eureka Cooperative Maintenance Dredging Project

File: Woodley Island Marina and City of Eureka Waterfront Maintenance Dredging (WDID No. 1A04140WNHU)

This Order by the California Regional Water Quality Control Board, North Coast Region (hereinafter Regional Water Board), is being issued pursuant to Section 401 of the Clean Water Act (33 USC 1341), in response to your request, on behalf of the Humboldt Bay Harbor, Recreation and Conservation District (Harbor District) and City of Eureka (applicants), for Water Quality Certification for the cooperative maintenance dredging project in Humboldt Bay. The Regional Water Board received an application and $6,627.20 processing fee from the City of Eureka on October 1, 2004. The Regional Water Board received an application and $11,700 processing fee from the Harbor District on October 12, 2004. We deemed the application complete on October 18, 2004, and posted information on our website describing the proposed project for a 21-day public comment period starting on October 25, 2004. Regional Water Board staff received copies of the comment letters from the California Department of Fish and Game (CDF&G) to the Harbor District regarding the Mitigated Negative Declaration for this project. Regional Water Board staff contacted CDF&G staff and provided them with additional opportunity to comment specifically on the proposed water quality certification. The U.S. Environmental Protection Agency (USEPA) also required the applicants to conduct additional sediment testing in the areas proposed for dredging.

The applicants implemented a Sampling and Analysis Plan and demonstrated that contaminant concentrations in the sediment were within acceptable limits for ocean disposal for all sediments except those in the area of the Coast Seafoods dock. Sediment from that area was not approved

for dredging and disposal to any surface water without additional Tier III testing and approval from USEPA. On August 23, 2005, Regional Water Board staff received more comments from CDF&G staff regarding the proposed shoreline disposal location and the disposal of sediment dredged from the Coast Seafoods dock area. This Order does not authorize dredging or disposal of sediment from the Coast Seafoods dock area without prior written approval from the U.S. Environmental Protection Agency (USEPA).

CDF&G staff and USEPA staff have indicated that the applicants may proceed with the project, including shoreline disposal, but that the sediment may not be suitable for beach disposal in the future mainly due to the small grain size and the lack of studies to evaluate the effects of disposal on the near shore sea floor habitat. These agencies have stated that they will object to any future projects involving shoreline disposal. CDF&G staff suggested that the applicants should either begin working now on identifying alternative methods for sediment disposal from future projects, or else plan to use the designated Humboldt Open Ocean Disposal Site in the future. This may be the last opportunity for the applicants to thoroughly study the effects of this type of disposal. If the applicants intend to pursue shoreline disposal for future projects, Regional Water Board staff recommend that the applicants work with USEPA and CDF&G to develop a plan to monitor and study the discharge and near shore subtidal habitat during implementation of this project.

Project Description:

This dredging project will use the cutter-suction pipeline dredging method with surf zone disposal. This is the same dredging and sediment disposal method that was used in 1987 and 1998 for similar maintenance dredging projects. The cutter-suction dredge is the preferred dredging method for this type of project because it can maneuver between the docks, piers, and slips of the marina and waterfront facilities. The cutter-suction dredge is also the preferred dredging method for this area of Humboldt Bay, because it creates less turbidity around the dredging area than does the clamshell dredging method. Cutter-suction dredging involves a moveable cutter head that loosens the bottom sediments and a pipe under constant suction that draws in the loose sediments and much of the turbid water around the cutter head. The dredged material and water mixture (spoils slurry) is pumped through a semi-flexible disposal line to the surf zone of the Pacific Ocean at the designated disposal area located on the shoreline of the Samoa Peninsula. The discharge pipeline will be floated across the minimal access open water areas of Humboldt Bay and will be weighted and submerged where crossing navigable waters.

Approximately 140,000 cubic yards (including overdredge) of sediment will be dredged from within the berthing areas of the marina, and approximately 77,000 cubic yards of sediment will be

	dredged from eleven City of Eureka waterfront sites. The dredging activities are scheduled to begin in November 2005. The project is expected to take 75 days to complete, with the dredging contractor working twenty-four hours per day and seven days per week. The total area affected by the Woodley Island Marina portion of the dredging project is approximately 16.14 acres. The total area affected by dredging the City of Eureka waterfront sites is approximately 11.05 acres.
Receiving Water:	Humboldt Bay and Pacific Ocean
Hydrologic Unit:	Eureka Plain Hydrologic Unit No. 110.00
Dredge Volume:	217,000 cubic yards
Filled or Excavated Area:	Area Temporarily Impacted: 27.19 acres Area Permanently Impacted: none
Total Linear Impacts:	Length Temporarily Impacted: 0.0 feet Length Permanently Impacted: 0.0 feet
Federal Permit:	United States Army Corps of Engineers Individual Permit (File No. 22216N)
Compensatory Mitigation:	None
Noncompensatory Mitigation:	Best Management Practices for turbidity control include the use of a cutter-suction dredge and ocean disposal within the surf zone during the time of year when background turbidity levels are expected to be high and dissipation of the spoils slurry is expected to be rapid.
CEQA Compliance:	The Humboldt Bay Harbor Recreation and Conservation District, as the lead California Environmental Quality Act (CEQA) agency, certified a Mitigated Negative Declaration for the project on October 14, 2004.
Standard Conditions:	Pursuant to Title 23, California Code of Regulations, Section 3860 (23 CCR 3860), the following three standard conditions shall apply to this project:

1) This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Section 13330 of the California Water Code and 23 CCR 3867.

2) This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

3) The validity of any nondenial certification action (actions 1 and 2) shall be conditioned upon total payment of the full fee required under 23 CCR 3833, unless otherwise stated in writing by the certifying agency.

Additional Conditions: Pursuant to 23 CCR 3859(a), the applicant shall comply with the following additional conditions:

1) The applicants shall notify Regional Water Board staff by telephone, email, or in writing at least five working days (working days are Monday – Friday) prior to the commencement of dredging work, with details regarding the project schedule, in order to allow staff to be present during implementation and to answer any public inquiries that may arise regarding the project.

2) Sediment from Coast Seafood's dock area shall not be dredged and discharged to surface waters without prior written approval from the USEPA and Regional Water Board.

3) No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete washings, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature, other than that authorized by this permit, shall be allowed to enter into or be placed where it may be washed by rainfall into waters of the State. When operations are completed, any excess material or debris, including concrete washings, shall be removed from the work area and disposed of properly. No rubbish shall be

deposited within 150 feet of the high water mark of any stream.

4) Fueling, lubrication, maintenance, operation, and storage of vehicles and equipment shall not result in a discharge or a threatened discharge to waters of the United States. At no time shall the applicant use any vehicle or equipment which leaks any substance that may impact water quality. Staging and storage areas for vehicles and equipment shall be located outside of waters of the United States.

5) Project activities shall comply with provisions in the North Coast Region Water Quality Control Plan (Basin Plan).

6) Creation of pollution, contamination, or nuisance, as defined by Section 13050 of the California Water Code, is prohibited.

7) The suspended sediment load of surface waters in Humboldt Bay or the Pacific Ocean shall not be altered in such a manner as to cause a nuisance or adversely affect beneficial uses.

8) Dredging and sediment disposal activities shall not cause the turbidity of Humboldt Bay to be increased more than 20 percent above naturally occurring background levels.

9) The project site may be visited and assessed by Regional Water Board staff to document compliance with this certification.

10) A copy of this permit must be provided to the Contractor and all subcontractors conducting the work, and must be in their possession at the work site.

11) Aerial photos of the surf zone disposal location and the shoreline from the mouth of the Eel River to the mouth of the Mad River shall be taken before, during, and after the project to provide visual evidence of the effects of the discharge and the natural ocean water conditions along the shoreline. Aerial photos of this stretch of shoreline shall be taken within one week prior to discharge, within two weeks after discharge begins, approximately mid way through the project and within two weeks after the discharge ends. A report containing the

aerial photos shall be submitted within 30 days of the end of the project.

12) If, at any time, an unauthorized discharge to surface waters occurs, or any water quality problem arises, the project shall cease immediately and the Regional Water Board shall be notified promptly.

13) This Order is not transferable. In the event of any change in control of ownership of land presently owned or controlled by the Applicant, the Applicant shall notify the successor-in-interest of the existence of this Order by letter and shall forward a copy of the letter to the Regional Water Board at the above address.

To discharge dredged or fill material under this Order, the successor-in-interest must send to the Regional Water Board Executive Officer a written request for transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, address, and telephone number of the person(s) responsible for contact with the Regional Water Board. The request must also describe any changes to the Project proposed by the successor-in-interest or confirm that the successor-in-interest intends to implement the Project as described in this Order.

Water Quality Certification: I hereby issue an order [23 CCR Subsection 3831(e)] certifying that any authorized discharge from Humboldt Bay Harbor, Recreation and Conservation District and City of Eureka Cooperative Maintenance Dredging Project (WDID No. 1B04140WNHU) will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 (" Toxic and Pretreatment Effluent Standards") of the Clean Water Act [33 USC Subsection 1341 (a)(1)], and with other applicable requirements of State law. This discharge is also regulated under State Water Resources Control Board Order No. 2003 - 0017 - DWQ, "General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification" which requires compliance with all conditions of this Water Quality Certification.

Except as may be modified by any preceding conditions, all certification actions are contingent on: a) the discharge being limited and all proposed mitigation being completed in strict compliance with the applicant's project description, and b) compliance with all applicable requirements of the Regional Water Board's Water Quality Control Plan for the North Coast Region (Basin Plan).

Expiration: The authorization of this certification for any dredge and fill activities expires on April 30, 2006, or upon completion of the project, whichever occurs first. Conditions and monitoring requirements outlined in this certification are not subject to the expiration date outlined above, and remain in full effect and are enforceable.

Please notify Dean Prat at (707) 576-2801 or dprat@waterboards.ca.gov prior to the start of the project (pursuant to Additional Condition No. 1 above) so that we can answer any public inquiries about the work.

Sincerely,

Catherine E. Kuhlman
Executive Officer

082605_DLP_tmk_harbordredging_401cert_082505

Enclosure:
State Water Resources Control Board Order No. 2003-0017 - DWQ, "General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification"

cc: U.S. Army Corps of Engineers, District Engineer, P.O. Box 4863, Eureka, CA 95502
Ms. Jane Hicks, U.S. Army Corps of Engineers, Regulatory Functions, 333 Market Street, San Francisco, CA 94599
Ms. Michelle Smith, 422 First Street, Suite G, Eureka, CA 95501

State of California

Flex your POWER

Memorandum

Date: August 23, 2005

RECEIVED
AUG 26 2005
CALIFORNIA
COASTAL COMMISSION

To: Jim Baskin
California Coastal Commission
710 E Street, Suite 200
Eureka, CA 95501

From: Thomas Napoli
Staff Environmental Scientist
Department of Fish and Game

Subject: Application No: 1-04-061 and 1-04-062: City of Eureka and Humboldt Bay Harbor District Maintenance Dredging and Disposal

The California Department of Fish and Game (Department) has reviewed the staff reports for the Humboldt Bay Harbor, Recreation, and Conservation District (HBHRCD) and the City of Eureka maintenance dredging and disposal of dredge spoils onto the ocean shoreline at Samoa Peninsula. The City of Eureka proposes to suction dredge and dispose approximately 80,390 cubic yards of sediments into the tidal zone of the Samoa Peninsula. The HBHRCD proposes to suction dredge and dispose approximately 120,000 cubic yards of sediment to the same location.

The Department has the following comments regarding the Coastal Commission staff reports for these projects.

1. The Department understands that NOAA-NMFS will be issuing a Biological Opinion and Incidental Take Statement for coho salmon on this project. Coho salmon are listed as threatened pursuant to the California Endangered Species Act (CESA), and a State Consistency Determination will need to be obtained to authorize this take of coho salmon.

2. The staff reports state Coastal Act §30233(b) allows dredge spoils to be used for beach replenishment if they are placed onto an appropriate beach. The dredge spoils that will be discharged in this project are 85% silt and clay and only 15% sand, yet the receiving beach is 95% sand. The Department does not believe that a beach composed of 95% sand is suitable for placement of dredge spoils with 85% fines due to potential adverse effects on benthic habitat, fish, and wildlife. Therefore, the Department recommends that the nearshore subtidal habitat be monitored, in addition to the intertidal habitat, for substrate changes. Aerial photography and water quality monitoring for suspended solids would be helpful to show where the sediment plume is traveling. In addition, the Department recommends that the applicants' begin planning for other methods of disposal for future dredging events. The Humboldt Open Ocean Disposal Site (HOODS) was designed and approved to accept fine-grained sediments and has the capacity to receive these sediments. Upland disposal is another option which could be pursued.

3. The sediment sampling analysis indicates the Coast Seafoods dock has low levels of PCBs and PAHs and the receiver beach is virtually clean of contaminants. The Department does not believe it is appropriate to place any level of these bioaccumulative and carcinogenic contaminants onto a public beach or into the surf zone. Therefore, the Department recommends that the sediments from the Coast Seafoods dock be disposed at a permitted upland disposal site.

Thank you for the opportunity to comment on the Coastal Commission staff reports. As always, Department personnel are available to discuss our concerns, comments, and recommendations in greater detail. To arrange for discussion, please contact Ms. Vicki Frey, Environmental Scientist, California Department of Fish and Game, 619 2nd Street, Eureka, CA 95501, telephone (707) 445-7830.

cc: Ms. Vicki Frey
CDFG-Eureka

Mr. Michael Knight
City of Eureka
Public Works Department
531 K Street,
Eureka, CA 95501

Mr. David Hull
Humboldt Bay Harbor, Recreation, and Conservation District
PO Box 1030
Eureka, CA 95502

Mr. Yoash Tilles
Pacific Affiliates
990 Waterfront Drive
Eureka, CA 95501

Mr. Clyde Davis
U. S. Army Corp of Engineers
333 Market Street
San Francisco, CA 95501

Mr. Brian Ross
US EPA
San Francisco, CA

Jim Baskin

From: Ross.Brian@epamail.epa.gov
Sent: Thursday, August 11, 2005 11:18 AM
To: Clyde.R.Davis@spd02.usace.army.mil
Cc: ytilles@pa-schniederdock.com; jbaskin@coastal.ca.gov; dprat@waterboards.ca.gov; vfrey@dfg.ca.gov; Ota.Allan@epamail.epa.gov
Subject: EPA comments on City of Eureka, etc., sediment test results

Clyde et al.:

EPA has reviewed the results of sediment testing for various dock and marina facilities proposed to be dredged by the City of Eureka and the Humboldt Bay Harbor, Recreation and Conservation District. These results are presented in the April 1, 2005 report, "City of Eureka and Humboldt Bay Harbor, Recreation and Conservation District Sediment Sampling Analysis" prepared by Pacific Affiliates, Inc. The proposed dredging would be conducted under existing Department of the Army permit numbers 22215N and 22216N. The dredged material is proposed to be discharged into the surf zone at a site on the Samoa Peninsula. Our comments are provided pursuant to EPA's authorities under section 404 of the Clean Water act and the regulations at 40 CFR Part 230.

The sediment quality (in terms of chemical contaminant levels) at most of the facilities tested is similar to that found in 1996. However, EPA is concerned that in most cases the grain size distribution of the sediments is even finer than 1996, when EPA determined that the material was already inappropriately fine for nearshore placement and beach nourishment. In addition, one location that was not tested in 1996 (Coast Seafoods Dock) is more contaminated than the other facilities tested and, independent of its grain size distribution, is not suitable for unconfined aquatic disposal without additional testing and analysis, as discussed below.

COAST SEAFOODS DOCK

Several individual contaminants are somewhat elevated in the Coast Seafoods Dock sediments, especially the high and low molecular weight polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs, measured as Aroclors in this case). PAHs may contribute to sediment toxicity, and both classes of compounds can accumulate in the food web. The PCB concentration [summed, approximately 200 parts per billion dry weight] is of particular concern. EPA has determined that determined that the sediment from the Coast Seafoods Dock is not suitable for unconfined aquatic disposal ("NUAD") based on the existing data. This material, if dredged, should be disposed at an appropriate upland facility and not in waters of the U.S. or ocean waters. Alternatively, in order to further consider these sediments for aquatic disposal, full Tier III testing would be necessary in accordance with the national sediment testing guidance contained in the joint EPA/USACE Inland Testing Manual (ITM). Appropriate Tier III testing for these sediments would include multi-species liquid, suspended, and solid phase acute toxicity testing, and multi-species bioaccumulation testing. Contaminants of concern for tissue analysis following the bioaccumulation exposures would include PAHs, PCBs (congener-specific, not by Aroclors), and pesticides (since this dock facility does not have a history of previous testing to indicated that pesticides are not expected to be present). EPA would be happy to work with the project proponent to develop a new sampling and analysis plan for this testing, should they propose this approach. But based on the available information, this material may not be discharged into waters of the U.S [40 CFR Part 230.61(b)(1)] or ocean waters.

CONCLUSIONS

Sediments prposed to be dredged from all of the facilities evaluated in the April 1, 2005 Pacific Affiliates Sediment Sampling Analysis report, with the exception of the Coast Seafoods dock, are suitable for unconfined aquatic disposal without further testing. The Coast Seafoods dock sediments are NOT suitable for unconfined aquatic disposal and, without further testing and re-evaluation, may not be discharged into waters of the U.S. or to ocean waters.

Although EPA continues to object to surfzone placement of material from any of these facilities based on the inappropriately fine-grained nature of the sediments. On this basis, we expect to object to any extension or reissuance of the existing permit once it expires, particularly given the availability of the Humboldt Open Ocean Disposal Site (HOODS) just offshore of Humboldt Harbor. We strongly urge the City of Eureka and the Humboldt Bay Harbor, Recreation and Conservation District to beging taking appropriate steps now, financial and otherwise, to plan to use HOODS or other alternatives to nearshore discharge of fine grained sediment by the time maintenance dredging of these facilities is needed again.

Thank you for the opportunity to provide these comments. Pleas call or e-mail me if there are any questions about EPA's comments or determinations.

Brian D. Ross
EPA Region 9, WTR-8
Dredging & Sediment Management Team
75 Hawthorne Street
San Francisco, CA 94105
415-972-3475
Fax 947-3537

11 of 11

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

EXHIBIT NO. 11
APPLICATION NO.
1-05-039 (HUMBOLDT BAY)
Memo from Jack Gregg PhD,
CCC Water Quality Unit
(Page 1 of 4)

August 29, 2005

MEMORANDUM

To: Peter Douglas, Executive Director
Bob Merrill, Coastal Program Manager

From: Jack Gregg, Water Quality Supervisor

Re: Humboldt Bay Harbor, Recreation, and Conservation District and City of Eureka Dredging Project

I have reviewed the Sediment Sampling Analysis for this project dated April 1, 2005, the comment letter from Sherry E. Duggan hand delivered to the CCC hearing on August 12, 2005, sampling and toxicity test data from previous dredging episodes and other associated correspondence.

The Sampling and Analysis Plan was approved by the Corps of Engineers and the USEPA. The number of samples and compositing scheme are comparable to maintenance dredging projects in San Francisco Bay and ports of Los Angeles and Long Beach. The suite of analytes and detection limits were comparable to sediment characterization in other parts of the state, although it is becoming more common to analyze Polychlorinated Biphenyls (PCBs) congeners instead of Arochlor mixtures, providing a basis for any required additional testing. The levels of organic chemicals detected at most of the dredging sites are fairly common in harbors and below the levels where environmental effects would be expected.[1] The exception is the Coast Seafoods site where levels of PCBs reported in the Sediment Sampling Analysis dated

[1] Most of the detections of Polycyclic Aromatic Hydrocarbons (PAHs) and PCBs are below the Effects Range Low of the NOAA National Status and Trends Program Sediment Quality Guidelines. PAHs are commonly found in harbors associated with creosote pilings. PCBs are typically residuals of past industrial process.

April 1, 2005 are high enough that USEPA staff have recommended that the material not be discharged to the Samoa Beach disposal site without further study of potential biological impacts.

While dispersive dredged material disposal sites lead to uncertainty in the ultimate fate and transport of dredged materials, they also can significantly reduce the exposure of aquatic organisms and humans to residual amounts of pollutants. The low levels of PAHs, PCBs and organic tins in the material to be dredged will be mixed with bay water (80% water to 20% sediment) during the dredging process and moved out of the bay waters by the suction dredge. While there is potential for exposure with a beach disposal site, the reason that disposal has been allowed at this site to date is the high energy environment of an open ocean beach on the Eureka coastline. Fine grained sediments will immediately be separated from sandy material and moved with prevailing currents. While the fine grained material may move as a plume in the nearshore environment initially, it will rapidly disperse out of the surfzone and will continually be diluted with cleaner water. Just as it is not prudent to swim near flowing storm drains, the highest risk to swimmers and surfers at the disposal site would be close to the end of the disposal pipe. Based on the chemistry data provided it is highly unlikely that an individual could be exposed to significant amounts of pollutants from the dredged material once it has been mixed with water both at the dredging and disposal sites.

Nevertheless, beach disposal is problematic. There are short term impacts to beach access and water quality and the preferred material for beach restoration is typically at least 85% sand-sized. Another alternative that has been considered for the Humboldt Bay maintenance dredging project is to take suitable material to the USEPA-designated Humboldt Open Ocean Disposal Site (HOODS). This alternative would likely require changes in dredging equipment and operations (from suction dredge to clamshell dredge and hopper barge) and it may prove more difficult (and costly) to protect bay

resources from impacts of suspended sediments using this alternative. The North Coast Regional Water Quality Control, California Fish & Game and USEPA have indicated that the applicants should be planning to provide more information on appropriate disposal alternatives or a plan to begin using the HOODS site before applying for their next dredging permit (the current permit expires in 2008).

One of the comment letters presented to the Coastal Commissioners on the day of the hearing for this project[2] made several comparisons of levels of Polycyclic Aromatic Hydrocarbons (PAHs) to regulatory thresholds that are not appropriate for this exposure scenario. Specifically the letter compared the levels of benzo(a)pyrene to both Preliminary Remediation Goals and to No Significant Risk Levels. Preliminary Remediation Goals (PRGs) are published by the USEPA Region IX and are risk-based concentrations use for site "screening". While they could be used as initial cleanup goals, they are not meant to be regulatory cleanup standards. The PRGs are levels in soil considered to be protective for humans over a lifetime of exposure. They are not appropriate for comparison to the Humboldt dredging project conditions where humans will not be exposed to the in-situ sediments concentrations of benzo(a)pyrene and where exposure to the much diluted concentrations in the sediment/water slurry will be for a relative short period of time. Even the most exposed humans (probably surfers) would only be exposed to the diluted dredged material a few hours per day over the course of the project, much different than the exposure considered in developing the PRGs.

This comment letter also compared the benzo(a)pyrene levels to the No Significant Risk Level from 22 California Code Regulations Section 12705(c) (Safe Drinking Water and Toxic Enforcement Act of 1986 also known as Proposition 65). Again this value is set to express the risk of exposure to the chemical over a lifetime of exposure.

[2] Letter from Law Offices of Sharon Duggan dated August 11, 2005.

Conclusions

Based on the sediment chemistry and toxicity data provided I recommend that the Coastal Commission find that this project, as conditioned, will not significantly impact coastal resources.

LAW OFFICES OF SHARON E. DUGGAN
370 Grand Avenue Suite 5
Oakland, CA 94610
(510) 271-0825 Facsimile: (510) 271-0829

ORIGINAL

August 11, 2005

Hand Delivered on August 12, 2005 at Coastal Commission Meeting - Costa Mesa

RECEIVED AT COMMISSION MEETING
AUG 12, 2005
FROM: SHARON DUGGAN

California Coastal Commission
c/o North Coast District Office
710 E Street, Suite 200
Eureka, CA 95501

Re: Comments Regarding Application 1-04-061 and 1-04-062, Humboldt Bay Harbor, Recreation, and Conservation District and the City of Eureka Maintenance Dredging Project
Agenda Items No. F 10c and F 10d

Dear Commissioners:

On behalf of the Environmental Protection Information Center, Californians for Alternatives to Toxics, and Humboldt Baykeeper we respectfully request that you not approve today two maintenance dredging applications, 1-04-061 submitted by the Humboldt Bay Harbor, Recreation and Conservation District, and 1-04-062 submitted by the City of Eureka, which are calendared for a public hearing and vote at your meeting held today on August 12, 2005 in Costa Mesa.

We believe that there is insufficient information and evidence before the Commission to enable it to make the necessary findings pursuant to the Coastal Act to justify an approval. The record is clear that significant and substantial information concerning impacts has yet to be developed, much less released for public and agency review and comment. It is inappropriate for the Commission to act in the absence of necessary information. In such circumstances, the application is really not complete, and should not have been accepted for filing in the first instance. Under these circumstances, deadlines pursuant to the Permit Streamlining Act should not force a premature and unwarranted decision.

The prudent course of action at this time is to not act and to first require submission of the monitoring program, the dredge spoils and hazardous materials spill contingency plan, the specified performance standards intended to minimize the entrainment of juvenile salmonids and other environmentally sensitive estuarine organisms including eelgrass, any modification requirements issued by the U.S. Army Corps of Engineers, and the final biological opinion, which are all being proposed as permit conditions. In addition, an adequate environmental impact analysis pursuant to the California Environmental Quality Act ("CEQA") is required. All of this information is necessary before you can properly make the decision and findings required

pursuant to the Coastal Act.

Public Resources Code section 30231 requires that the "biological productivity and quality of coastal waters, streams, wetlands, estuaries, and lakes . . . shall be maintained and, where feasible, restored . . . " Section 30233(a) provides that dredging may be permitted "where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects. . ." The Commission cannot satisfy these requirements in the absence of the very information staff recommends be provided ***only after*** the two projects are approved. This is particularly true in terms of knowing what measures will be taken to prevent release of hazardous materials and what standards will apply to protect salmonids and other estuarine organisms. In the absence of the biological opinion, the Commission cannot reasonably predict, evaluate, or properly mitigate, the impacts to protected species. Nor can the Commission, in the absence of the identified information, reliably determine that the dredging projects will maintain and enhance the biological capability of the habitat.

The Commission cannot satisfy the requirement that it find that feasible mitigation measures have been provided to minimize environmental effects because, in the absence of knowing the environmental effects, it is impossible to determine the need for and nature of mitigation measures. Nor can the Commission, at this point, make a reliable finding that there is no feasible less environmentally damaging alternative. As stated in the September 3, 1997 letter from the U. S. Environmental Protection Agency concerning maintenance dredging and disposal at the same site, "no studies have been performed at this location to confirm that dredged material disposal will have no adverse impacts on the surrounding area." A copy of this letter is provided herewith.

We note that in the absence of critical information about the project, such as performance standards and spill contingency procedures, the project has not been adequately described pursuant to the CEQA. The lack of adequate evidence to determine the level of impact, feasibility of alternatives, and proper mitigation, as required by the Coastal Act, also violates CEQA as no project can be approved pursuant to CEQA in the absence of adequate project description, full disclosure of significant environmental effect, adequate consideration of feasible alternatives, and imposition of adequate mitigation. It is improper to defer until after approval the evaluation of significant impacts and adoption of mitigation measures. In the absence of sufficient mitigation, an agency is required to adopt a statement of overriding considerations. No such statement is identified in the staff reports for these projects. Further any project approval under CEQA must be accompanied by a mitigation monitoring program if mitigation measures are adopted. The proposed approvals attempt to short circuit these requirements by delaying development of a monitoring program to some time in the future. Finally, the public is entitled

to review the full project and all information prior to a decision on the project. The proposed approvals cut the public out of the review of these projects, not only by failing to adequately disclose and evaluate the project up to this point, but also by leaving future decisions as to monitoring, performance standards, and impacts in the hands of the Executive Director and outside the public realm.

There is evidence that these projects will cause adverse harm to the estuarine environment and to those who come into contact with the dredge spoils. Evidence in your files provide testing results of sediment from dredge sites. (City of Eureka and HBHR&CD Maintenance Dredging Project Sediment Sampling, April 1, 2005) Testing that has been done of the sediment from dredge sites shows that deposition of these materials on the beach and in the water where swimmers and surfers can contact them will cause significant risk to public health. Sediment samples taken from the Coast Seafoods Dock site and from the Commercial Street Dock site, show concentrations of benzo(a)pyrene of 141 and 73.1 micrograms/kilogram respectively. The federal Environmental Protection Agency Provisional Remediation Goal ("PRG") for benzo(a)pyrene in residential soil is 62 micrograms/kilogram. The detected concentrations of benzo(a)pyrene thus exceed EPA science-based goals that are set to protect the public health. In this case, people will not just be walking on this material with their shoes on. They'll be walking barefoot on these materials and swimming in them. Additionally, virtually every sample taken of sediment from sites to be dredged contains relatively high levels of a host of polycyclic aromatic hydrocarbons ("PAHs"), including benzo(b)fluoranthene, bezo(h)fluoranthene, dibenz(a,h)anthracene, indeno[1,2,3-cd]pyrene, and chrysene. Samples taken from the Fisherman's Landing Dock and the Coast Seafoods Dock show the presence of several Polychlorinated Biphenyls.

What we know about these chemicals is that contact with them at these levels is likely to have serious adverse effects on public health. What we don't know about these chemicals is enough that it ***cannot*** be said that contact with them, at the levels that will be present in the materials deposited in the surf zone, will ***not*** cause significant adverse effects on public health. These are all chemicals listed pursuant to 22 Cal. Code Regs. § 12000 as known to the state of California to cause cancer and/or birth defects. The no significant risk levels for these chemicals are extremely low. For example, 22 Cal. Code Regs. § 12705(c) provides a no significant risk level for benzo(a)pyrene of 0.06 micrograms, which is 6 one hundredths of one microgram. Polychlorinated biphenyls are listed as known to the State to cause birth defects and the state has been unable, so far, to set a no significant risk level for them. As stated above, people will be walking on and swimming in these materials. According to the Agency for Toxic Substances Disease Registry ("ATSDR") Toxicological Profile for PAHs, all of the PAHs mentioned above are suspected of causing cancer via skin contact. There is enough known about some of the PAHs that California's Office of Environmental Health Hazard Assessment ("OEHHA") has

appreciate your consideration.

Sincerely,

Sharon E. Duggan

enc.
cc: EPIC
CATs

listed no significant risk levels for oral ingestion of several of the PAHs. (22 Cal. Code Regs. § 12705(b)(1).) There is thus substantial evidence that people swimming in the surf and walking on the beach will be exposed to chemicals in the dredged materials in ways that will increase their risk of getting cancer or giving birth to children with birth defects. The proposed project does not mitigate these significant adverse environmental effects to the maximum amount feasible. At the very least these effects could be somewhat mitigated by depositing the dredge materials in the Humboldt Open Ocean Disposal Site ("HOODS").

In addition, because a private contractor will be conducting the dredging and thus depositing these materials into the surf and onto the beach, that contractor will be responsible for exposing the public to chemicals known to the State of California to cause cancer and birth defects. Putting these chemicals onto a beach and surf zone the public uses certainly will be a "knowing and intentional" exposure within the meaning of Cal. Health & Safety Code § 25249.5. 22 Cal. Code Regs. § 12102(i) defines "expose" for purposes of Proposition 65 as "to cause to ingest, inhale, contact via body surfaces or otherwise come into contact with the listed chemical." Pursuant to Proposition 65, therefore, the private contractor will be required to provide the beach-going public with clear and reasonable warnings that they will be exposed to chemicals known to cause cancer and birth defects if they use the surf zone or the beach.

There is considerable local interest in these projects. There are concerns about the proposed dredge spoils dispersal. Residents of Humboldt County and those who use the beaches are concerned that 2100 ten yard truck loads of dredge spoils will impact our beaches, much further north than just at the site of deposit. The tides will carry these spoils north. Impacts to salmonid populations in Humboldt Bay and its related rivers and streams, including the Mad River and Little River, have not been evaluated or mitigated. As matters of public and environmental interest, we believe any consideration of these matters should be held in the community that will be affected by the dredging, and thus the matter should, at a minimum, be held over to the September meeting scheduled in Eureka.

We respectfully request that the Commission not act on the Applications 1-04-061 and 1-04-061 today. We believe that no decision is proper, pursuant to the Coastal Act or the California Environmental Quality Act, until all components of the dredging project are fully identified and exposed for public review and comment, and the Commission has adequately evaluated all of the significant impacts, feasible alternatives, and necessary mitigation measures.

We support and incorporate the comments submitted by the Humboldt Baykeeper, which were submitted to Commissioner Bonnie Neely on August 8, 2005.

We apologize for the lateness in delivering this letter, but it could not be avoided. We

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

September 3, 1997

Lt. Colonel Richard G. Thompson
San Francisco District Engineer
US Army Corps of Engineers
333 Market Street, 8th Floor
San Francisco, CA 94105

Subject: **Supplementary comments regarding Public Notice 222150N (Proposed maintenance dredging at Woodley Island Marina and City of Eureka waterfront)**

Dear Colonel Thompson:

EPA has reviewed the responses to comments (dated June 16, 1997) prepared by Pacific Affiliates on behalf of the city of Eureka and the Humboldt Bay Harbor District. Our review was conducted in accordance with the Federal Guidelines (40 CFR 230) published pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, and in accordance with the Ocean Dumping regulations (40 CFR Part 227). The applicants have not clearly demonstrated, as required under the 404(b)(1) Guidelines, that disposal at the newly-designated Humboldt Open Ocean Disposal Site (HOODS) is not practicable. Moreover, the applicants have not demonstrated their proposed beach disposal would be less environmentally damaging than use of the HOODS alternative. Therefore, based on our review of the applicants' responses to agency comments, EPA maintains its position that a practicable and less environmentally damaging alternative exists for this project and, pursuant to Section 230.10 of the guidelines, we continue to object to the proposed surf-zone disposal.

Background

The proposed project involves dredging 67,155 cubic yards from Eureka's waterfront and 120,000 cubic yards from the Woodley Island Marina as described in Public Notice 222150N. Dredging and disposal are scheduled to take place between December and April, when winter storms and river runoff significantly increase the turbidity of nearshore waters. Both projects propose to dredge hydraulically and then pump material through a pipe system to the beach on the Pacific Ocean side of the north spit (Samoa Peninsula) where it would be discharged above MLLW and allowed to flow directly into the surf zone. The proposed dredged material is fine-

grained (70-80% fines) and is expected by the applicants to rapidly disperse in the nearshore environment.

EPA has commented on the proposed project in a letter to the U.S. Army Corps of Engineers (USACE) dated April 17, 1997. In this letter we stated our objections to the proposed surf-zone disposal of the dredged material because the recently designated HOODS ocean disposal site presents a less damaging and presumably practicable alternative for these projects. In our letter we stated that we would reconsider this position should the applicants provide additional information clearly demonstrating that use of the nearby HOODS would not be practicable or would have greater environmental impacts. Unfortunately, they still have not clearly demonstrated [as required by the 404(b)(1) Guidelines] that use of the HOODS would not be practicable or that it would be more environmentally damaging, as outlined in the following discussions of the applicants' key issues.

Applicants believe HOODS disposal would be too expensive

The applicants' response states that cutter-suction dredging with surf-zone disposal is the least expensive of the options considered, and that use of the HOODS would be more expensive due to both the haul distance to the disposal site and the reported need to use different dredging equipment. As you know, under both the 404(b)(1) Guidelines and the Ocean Dumping regulations, the fact that one alternative is more expensive does not necessarily mean that it is not practicable. In this case, the HOODS is approximately 3 nautical miles offshore of the mouth of the entrance to Humboldt Harbor. This is in contrast to the San Francisco Deep Ocean Disposal Site (SF-DODS) which is approximately 50 miles off shore. We realize that the particular dredging location in this case is a few miles north of the harbor entrance, making the round trip to the HOODS approximately 20 miles. However, this is again in contrast to the 100+ mile round trip that San Francisco Bay dredgers must make to the SF-DODS, and is very similar to distances routinely traveled by dredgers using EPA-designated ocean disposal sites off southern California. Albeit more expensive than the applicants' proposed disposal of dredged material slurry directly onto the beach, EPA's position is that the HOODS is near enough as to generally be a practicable disposal alternative for projects anywhere within Humboldt Harbor.

Independent of this overall position, EPA cannot determine from the incomplete information provided exactly what disposal at the HOODS would cost for this project, or whether the economic benefits of the project could justify the costs. We believe clamshell dredging could be practicable here; however, the applicants' response eliminated clamshell dredging as a possible method early in its analysis, and provided cost estimates associated with cutter-suction dredging method only. While costs are broken down according to project location, no specifics are given to describe or justify method-related cost differences (e.g., related to types of equipment or expected down time) between the different disposal locations. Furthermore,

since winter-time disposal is the assumption of the applicants' analysis (an incorrect assumption - see discussion below), it is difficult to tell how much the cost differences between surf-zone disposal and HOODS are associated with seasonal considerations (e.g., delays due to weather) as opposed to equipment. In addition, it is unclear what the economic benefits of the proposed project could be. In summarizing the indirect impacts for this project, the Public Notice states that, "Excavation along the city of Eureka's side of the channel may lead to increased development and increased amounts of boating by providing more berthing sites and deeper berths." Thus, it appears that at least a portion of the proposed dredging is speculative in that it is planned for areas that have seen little if any dredging in the past.

Applicants believe HOODS disposal would be logistically difficult

In addition to cost concerns, the applicants' response also states that use of the HOODS would entail some logistical difficulties relating to the possible need to temporarily move marina floats in order to conduct clamshell or hopper dredging. In their comparison of the different dredging methods, the applicants describe clamshell dredging as economically infeasible for the proposed project. Clamshell dredging, according to the description provided, does not allow efficient and uniform removal of material, and is difficult to use in the confined spaces of a small marina.

However, EPA experience in numerous other small harbors on the West coast is that many marinas are able to use a clamshell for regular maintenance dredging of both slips and channel areas. Some of these marinas temporarily move floats (a section at a time) in order to more efficiently dredge underneath them, and some marinas dredge more slowly and carefully with the floats kept in place in order to minimize inconvenience to boat owners. Although EPA recognizes that either some additional cost or some additional inconvenience would be incurred, the applicants have not established that this cost or inconvenience renders clamshell or hopper dredging not practicable.

Applicants believe clamshell dredging (for HOODS disposal) would be environmentally unsound

In their comparison of the different dredging methods, the applicants also describe clamshell dredging as environmentally unsound. The applicants imply that eel grass and other sensitive aquatic life within Humboldt Bay could be affected by the temporary increase in turbidity associated with clamshell dredging. However, turbidity associated with clamshell dredging is typically localized and short-lived, and its impacts can usually be adequately minimized by timing (so that dredging does not occur during periods when sensitive organisms are present) or by using physical controls such as silt-curtains. A clamshell dredge also entrains much less water than cutter-section pipeline, thus reducing turbidity at the disposal site (i.e.,

either the turbidity associated with beach disposal or with decanting supernatant from a hopper barge).

In any event, the applicants' concerns in this regard appear to be misplaced. According to the California Department of Fish and Game (CDFG) there are currently no resource-related seasonal restrictions on dredging within Humboldt Harbor. While herring do spawn on eelgrass beds in the area, this activity occurs primarily in Arcata Bay to the north. There does not appear to be substantial spawning activity in close proximity to the proposed dredging. The CDFG agreement with the USACE allows maintenance dredging to continue in Humboldt Bay even during herring spawn, as long as it is at least 200 meters away from any spawning activity. Both CDFG and the Regional Water Quality Control Board have indicated that they would not impose timing or method restrictions on dredging activities within Humboldt Bay (or the project locations) as long as increases in turbidity were short-term and limited in scope by using available control technologies.

Applicants believe dredging must occur during the winter months

The applicants' entire alternatives assessment, and their justification for their selected alternative, is predicated on what is referred to as a "preferred window of operations" that is defined as the winter months (December - March). The applicant argues that because dredging and disposal operations must occur in the winter, that use of the HOODS site is not practical for safety reasons. However, the imposition of this time constraint is related to minimizing impacts of their proposed beach *disposal*, and is not related to concerns about the impacts of *dredging* itself on resources within the harbor.

Winter dredging has been advocated in the past by the resource agencies as the best time to minimize any impacts of surf-zone disposal on the near shore environment (particularly relating to the crab fishery). This recommendation was made based on the assumption that any possible adverse effects of dredged material deposition would be reduced at a time of high background turbidity associated with winter runoff from the Eel and Mad Rivers. By comparing the risks and costs associated with barge disposal at HOODS only during winter months, the applicants have imposed an unrealistic and unnecessary constraint on the use of this disposal technique and location. The applicants have not provided sufficient explanation as to why dredging and disposal operations for this project could not be timed to occur during seasons (spring and fall) when sea conditions are favorable for safe passage to HOODS. As noted above, the CDFG and the Regional Water Quality Control Board have indicated that *no special timing restrictions on dredging activities within Humboldt Bay are needed.*

Applicants do not demonstrate that surf-zone disposal is the least environmentally damaging alternative

The applicants have not provided the agencies with any information addressing the potential for long-term adverse environmental effects associated with the proposed disposal at off-site locations. Instead the applicants assume, without basis, that the potential adverse impacts associated with disposal of project sediments at the proposed surf-zone location are equal to those associated with disposal at the HOODS. The HOODS is an EPA-designated site that has been extensively characterized as part of an exhaustive site designation process, documented in EPA's "*Final Environmental Impact Statement for Designation of an Ocean Dredged Material Disposal Site off Humboldt Bay, California*" dated July 1995. The HOODS site designation came after 3 years of study by the USACE and EPA to identify a depositional site for unconfined aquatic disposal of dredged material where regular site use would have no significant adverse impacts to aquatic resources in the areas surrounding the disposal mound.

The proposed surf-zone disposal site, on the other hand, is dispersive (non-depositional) and thereby difficult to characterize for the purposes of determining whether disposal activities will have impacts on the surrounding environment. Indeed, no comparable (EIS-level) studies have been performed at this location to confirm that dredged material disposal will have no adverse impacts on the surrounding area. The one study that has been conducted to evaluate the effects of an earlier episode of surf-zone disposal was limited in its spatial and temporal scope. The results appeared to demonstrate that most of the fine-grained dredged material is rapidly transported away from the disposal site and that effects on the benthos in the immediate disposal area are short term. However, monitoring was performed only in the immediate disposal area and only for four months post disposal. It did not identify where the depositional zone for the fine material might be, or whether impacts may result there. In short, no studies have been performed to address the fate and possible impacts of dredged material disposed at this site.

Conclusion

In summary, EPA maintains its objection to the proposed beach disposal of material dredged from the Woodley Island Marina and the City of Eureka's waterfront. We believe that disposal at the nearby EPA-designated Humboldt Open Ocean Disposal Site is both practicable and a less environmentally damaging alternative. We disagree with several of the contentions made by the applicants to the contrary, including: that use of HOODS is impractical for cost, logistics, or safety reasons; that turbidity associated with clamshell dredging will cause unacceptable impacts; or that dredging must occur during winter months. EPA designated the HOODS specifically to provide an environmentally appropriate and practicable disposal alternative for Humboldt Bay area projects whose dredged material is uncontaminated but physically unsuitable for beneficial uses such as beach sand replenishment. The proposed

Woodley Island Marina and City of Eureka waterfront dredging is just this sort of project. I am concerned that allowing this project to proceed as currently designed sets a most unfortunate precedent for other California coastal jurisdictions wishing to dispose of unsuitable beach material; this is not a beach replenishment project, it is clearly a dredge material disposal project.

Thank you for the opportunity to provide these comments. If there are any questions about EPA's position in this matter, please call me at (415) 744-1860 or refer staff to Brian Ross at (415) 744-1979 or Pam Tsai at (415) 744-1986.

Sincerely yours,

Alexis Strauss

Alexis Strauss, Acting Director
Water Division

cc: USFWS, Sacramento (Betty Warne)
USFWS, Arcata (Randy Brown)
NMFS, (Chris Mobley)
CDFG, Menlo Park (Bob Tasto)
RWQCB, (Bill Rodriquez)
CCC, (Jim Raives)
SLC, (Hight)
Applicants
Office of Senator Boxer (Tom Bohigian)

9/3

May,

Address for Senator Boxer's office:

2300 Tulare Street
#130
Fresno, CA 93721

pam

August 6, 2005

California Coastal Commission
North Coast District Office
710 E Street Suite 200
Eureka, Ca 95501

Attn: Jim Baskin

Concerns about application 1-04-061-Humboldt Bay Harbor, Recreation and Conservation District
1-04-062-City of Eureka

I am a candidate for the Humboldt Bay Harbor, Recreation and Conservation District, 4th District seat.
After reviewing the above noted applications I find, that although I support the maintenance dredging being done, actually look forward to the benefit of having my sailboat no longer aground in its slip at low tide, I do not support having the dredging done during the time the salmonids will be using the Bay for their migration. They are an endangered species and any action we take that could jeopardize their survival should be avoided.
My other concern is the disposal of the spoils on the beach. All other parties who do maintenance dredging in Humboldt Bay are required to place their dredged materials upland and once they are drained they must dispose of them inland. The Humboldt Bay Harbor, Recreation and Conservation District, is the lead agency on the Bay and has the fiduciary responsibility of our Public Trust resources. They should be an example of proper practices, not an exception.

Sincerely,
Margaret Herbelin
Margaret Herbelin

Date: 8/8/05
Agenda # F10C & F10D
Application # 1-04-061& 1-04-062
Opposed to surf zone disposal

RECEIVED
AUG 0 8 2005
CALIFORNIA
COASTAL COMMISSION

To: California State Coastal Commission Commissioners, Alternates for Commissioners, Nonvoting members on the Commission and Jim Baskin

From: Pamela Miller, Humboldt Chapter, Surfrider Foundation

Re: Public Hearing August 12, 2005

Recognizing the need for dredging and the hard work that staff has put into developing the conditional coastal development zone permit for the City of Eureka and the Humboldt Bay Harbor Recreation and Conservation District I submit the following comments:

In reference to Coastal Act section 30220 providing that: Coastal areas suited for water oriented recreational activities that can not readily be provided at inland water areas shall be protected for such uses. There are a considerable number of humans in the water at several sites along the Samoa Peninsula especially during the winter months that the dredging is scheduled. The surfing community here has grown exponentially during the last eight to ten years. The near shore spoils disposal site is an important surfing area. During the 1998 dredging I observed on several occasions the discharging of spoils directly onto the beach. The high tides and storm surge that create wonderful waves for surfing ripped into the dune supporting the out fall pipe. The dredge spoils came out of the damaged pipe with enough force to dig a large hole in the sand that filled with black oily sediment. The plume from this disposal method was observed in the surf zone several miles north and south of the discharge point. I noticed more people than usual complaining of ear infections that winter. It is very disturbing to find out we will dispose of this round of dredging in much the same way directly into the ocean. I thought I would never see something like this again. Its like sweeping up the kitchen and dumping it all into the living room.

It is my understanding that dredge spoils from at least four other docking facilities on Humboldt Bay, Chevron, Samoa Pacific, Schnider Dock and Humboldt Bay Forest Products are required to dispose of spoils on an upland area. I strongly recommend considering an upland site alternative more thoroughly. The dredge spoils analysis, 15 % sand, 45% silt, 40%clays make it almost a perfect soil mix. The City of Eureka and the Harbor District could generate an income from the dried mix as a soil amendment. Since the "Superbowl" site is transforming into a fresh water marsh habitat with sensitive plants colonizing rendering it not an environmentally less damaging alternative than pumping spoils into the surf zone, I suggest exploring with Bureau of Land Management the possibility of an upland site. Just a couple of miles south of the "Superbowl" BLM manages an area for off highway vehicle use and training. There are several areas that might be suitable for storing the dredge spoils until they dry and then using them for the motorcycle trails.

I ask that the Commission **not** adopt the staff resolution to approve the two permits at the August 12th meeting. I recommend continuing the matter at the September meeting in Eureka and exploring with BLM the possibility of an upland site.

From: Melvin McKinney <mmckinney@humboldt1.com>
Date: Thu Aug 04, 2005 09:08:47 PM US/Pacific
To: California Coastal Commission
Subject: Request for a local hearing, issues

Dear Commissioners:

I respectfully request the following two items be removed from The August meeting agenda and be continued at the September 16-18 meeting in Eureka Ca.

c. Application No. 1-04-61 (Humboldt Bay Harbor District,Eureka & Humboldt Co.) Application of Humboldt Bay Harbor Recreation & Conservation District to dredge 120,000 cu. yds. of material from Woodly Island Marina boat basin in Humboldt Bay, and dispose of spoils in near shore ocean waters offshore of Samoa Peninsula, Eureka and Humboldt County. (JB-E)

d. Application No. 1-04-62 (Eureka, Humboldt Co.) Application of City of Eureka to dispose of 76,590 cu. yds. of dredged material in near shore ocean waters offshore of Samoa Peninsula, Humboldt County. (JB-E)

1. Considerable local interest in the project has developed and there are concerns regarding the proposed dredge spoils disposal and no reason given for not useing previous land disposal sites.

2. No reason was given for not useing a Hopper Barge to transport spoils to the Hood site instead of fowling up the beaches.

3. The Biological opinion is not completed for this project hearing and the special conditions are not all complete and may need further amendments.

4. It is known that Hydrogen Sulfide is being released in this dredging process and it has not been addressed in this project as it may prove harmful to birds and fish and unhealthy to humans.

5. The City nor the Harbor District have held informational meeting to educate the pubic of the hazards to this project area.

6. I feel the impacts to the Salmonoid migrations to Humboldt Bay and North to Mad River and Little River are not well addressed

7. Who can understand what 2100 ten yard truck loads of dredge spoils will do to our Clam Beach be cause the wind and tides move North and South with the winter rainy weather.

8. I understand the Commission has a lot of business to conduct, including time - sensitive issues. However, I request that matters of potentially significant environmental impact and public interest be scheduled for meetings as close as possible to the project location.

Sincerely, Melvin Mckinney

Melvin McKinney

P.O Box 78

Cutten Ca. 95534

Member of EPIC. Enviornmental Protection Information Center
Redwood Region Audubon Society
Sierra Club , North Group
NorthCoast Enviornmental Center

Melvin McKinney

HUMBOLDT BAYKEEPER®

August 8, 2005

Commissioner Bonnie Neely
California Coastal Commission
c/o North Coast District Office
710 E Street, Suite 200
Eureka, CA 95501

Re: Comments Regarding Application 1-04-061 and 1-04-062, Humboldt Bay Harbor, Recreation, and Conservation District and the City of Eureka Maintenance Dredging Project

Dear Commissioner Neely,

On behalf of Humboldt Baykeeper board, staff, and supporting members I submit to you these comments regarding the Applications 1-04-061 and 1-04-062 by the Humboldt Bay Harbor, Recreation, and Conservation District (from here on "District") and the City of Eureka for maintenance dredging at 13 sites in Humboldt Bay.

There are many concerns regarding this project and we would like to request, first and foremost, that you advocate that the Coastal Commission postpone ruling on this agenda item until the scheduled September meeting of the Commission in Eureka. There are many members of the Humboldt Bay community that would like to make personal comment regarding these projects, but have found it prohibitive to attend the Coastal Commission meeting in Costa Mesa. I appreciate the need for streamlining the process, but feel there should be case-specific exemptions from that process for projects of this magnitude that may have significant local impacts.

Although the staff recommendation from the North Coast District Office is to approve these applications, with special conditions, we feel that much of the required permitting and analysis has yet to be completed, and delaying any decision regarding these applications by one month will not significantly impact the project from moving forward in any way.

Thank you for your consideration of this matter. Please feel free to contact me at any time if you have any questions.

s/s Pete Nichols, Director
707.268.0664

15 of 19

The proposed project has not fully considered alternatives to disposal of dredge spoils.

In 1995, the U.S. Department of Environmental Protection designated the Humboldt Open Ocean Disposal Site ("HOODS") 3 miles from the Harbor entrance jetty. The HOODS site was designed to accept fine-grained silts and clays, as well as course-grained sand, and has the capacity to receive all project sediments determined to be chemically suitable. In fact, in comments submitted by the EPA regarding the 1998 dredging event, the EPA objected to the proposed surf-zone disposal stating that *"there are potential negative impacts associated with the proposed disposal method and location, and the EPA believes that there is a less damaging and practicable disposal alternative available at the Humboldt Open Ocean Disposal Site"*. In addition to the EPA, other state and federal agencies also commented that the HOODS alternative should be used to avoid impacts to habitat at the surf zone.

It has not been demonstrated by the District or the City of Eureka, in accordance with the Federal Guidelines (40 CFR 230) published pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, and in accordance with the Ocean Dumping regulations (40 CFR Part 227), that disposal at HOODS is not practicable. As an example, the San Francisco Deep Ocean Disposal Site (SF-DODS) is located 50 miles off shore, making for a 100 mile round-trip for San Francisco dredgers. There is a similar situation for EPA designated site off of southern California. This makes the, approximately 20 mile round-trip, to HOODS quite practicable as opposed to dumping the dredge spoils on a beach that is visited frequently by the public.

In addition, it has not been demonstrated that beach disposal would have less environmental impact than use of the HOODS alternative. The contention by the District and the City of Eureka that the dredging activity required for disposal at HOODS is impracticable has not be demonstrated, and the driving reason for this decision appears to be solely financial in nature. Clamshell dredging, the method necessary for disposal at HOODS, if done properly, can be as efficient as the suction-dredge method proposed. Many marinas on the west coast use this method for regular maintenance dredging. Although it may be more expensive and time-consuming, it has not been established by the applicants that this cost or inconvenience renders clamshell dredging not practicable. Under both the 404(b) (1) Guidelines and the Ocean Dumping regulations, the fact that one alternative is more expensive does not mean that it is not practicable.

The proposed project will negatively impact federally listed salmonid species.

Since the 1998 dredging event, two species of salmonids have been federally listed as threatened and critical habitat has been designated in the Humboldt Bay region. The following federally listed species and designated critical habitat may be present in the proposed project area: Southern Oregon/Northern California Coast (SONCC) coho salmon (*Oncorhynchus kisutch)*, California Coastal (CC) Chinook salmon *(O. tshawytcha)*, Northern California (NC) steelhead *(O. mykiss)*; and SONCC designated critical habitat. In addition, the Eureka Channel is used as a migration corridor and a feeding area for both spawning adult salmon and out-migrating smolts.

The proposed "clean-out" procedure used with the suction dredge technique will also result in a higher degree of "take" due to the increased pumping rate. The suction pipe used for this project pumps at approximately 15-20 feet per second, removing 200 cubic yards of solid material per hour. To purge the pipe it will be necessary to lift the cutter-head off the bottom twice a day for 20 minute intervals so water can flush the pipe. At the current suction rate, many more salmonids could be lost than previously anticipated. It has been proven that at suction rate

greater than 3.3 feet per second will not allow certain sized fish to escape the draw of the cutter head. This issue has not been addressed to date.

Again, considering the Biological opinion from NOAA Fisheries will not be completed until late August or early September, we ask that you postpone your decision on these applications until that document can be reviewed.

The Sediment Sampling Analysis conducted for this project is incomplete and methodology for sampling for toxic chemicals is flawed.

The analysis of the sediments conducted for this project reveal elevated levels of semi-volatile organic compounds (Polycyclic Aromatic Hydrocarbons – PAH's) that are listed under 22 Cal. Code § 12000 as known to cause cancer. Several PAH's were found at increased levels at several of the proposed dredge sites, many of these carcinogens, all components of creosote, cause cancer by skin contact. The Department of Health and Human Services has determined that these compounds are known animal carcinogens and the EPA has determined them probable human carcinogens. Disposal of sediments containing these compounds in an area that has very high use by the surfing and beach-going community poses a significant public health risk to these community members.

In addition, Humboldt Bay is listed under Section 303d of the Clean Water Act as impaired for PCB contamination, and the Bay has many sites that are known to be contaminated with Pentachlorophenol ("Penta", a fungicide used by the timber industry as a preservative for decades). Penta is itself a carcinogen, but, more importantly, commercial-grade penta contains dioxin. As it is one of the most sinister reproductive and developmental toxins on the planet, there is no safe level of exposure to dioxin. Further chemical analysis needs to be completed prior to this project moving forward.

The methodology used in the sampling process is also inefficient in determining accurate levels of these toxins. The method of "composite" sampling, where samples from various sites are mixed together for analysis, does not allow the investigator to identify "hot spots" of toxic contamination. Site specific sampling should be conducted to identify these sites.

Humboldt Baykeeper has conducted testing of select sites around the Bay that reveal elevated levels of dioxins and furans. Disposal of these compounds onto the beach poses significant health risks for many user groups of these areas including surfers, beach-goers, and the public in general. Additional testing for dioxin and furans needs to be conducted prior to this start of this project. There is also great concern for exposure, by humans, to these toxins by ingesting shellfish, such as Dungeness crab, that live and breed in these areas. Studies have shown that these toxins bioaccumulate in the food chain and can have serious health affects to those who ingest these shellfish.

Applicants do not demonstrate the overall impacts of surf-zone disposal

It is important to consider that this project is ***not*** a beach replenishment project and is clearly a dredge material disposal project. The applicants have not properly characterized the impact to the beach communities affected by this project which, considering the nature of the disposal is very difficult to assess. The applicants assume that the beach disposal method is equivalent to the depositional method that would be in place if HOODS were used. This is clearly not the case. The HOODS was identified specifically so that disposal of dredge material on a regular basis would have no significant adverse impacts to aquatic resources in the areas surrounding the disposal mound. The proposed surf-zone disposal method is dispersive (non-depositional) and is thereby difficult to characterize for the purposes of determining whether the disposal activities will have impacts on the surrounding environment.

The monitoring studies that have been completed in previous years consider only the site-specific residual impacts, but do not consider the cumulative impacts to the greater marine community. We feel there needs to be greater consideration the resident off-shore marine communities in addition to the existing on-shore, surf zone, analysis.

Friends of the DUNES

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AUG 10 2005
CALIFORNIA
COASTAL COMMISSION

August 10, 2005

Commissioner Bonnie Neely
California Coastal Commission
c/o North Coast District Office
710 E Street, Suite 200
Eureka, CA 95501

Re: Comments Regarding Application 1-04-061 and 1-04-062, Humboldt Bay Harbor, Recreation, and Conservation District and the City of Eureka Maintenance Dredging Project

Dear Commissioner Neely,

As a local non-profit organization involved in conservation of coastal environments, Friends of the Dunes is asking for postponement of voting on permit numbers 1-04-061 and 1-04-062 (maintenance dredging of Humboldt Bay and disposal) from the Coastal Commissions August public hearing meeting. There are many concerns regarding this project and Friends of the Dunes, as well as many members of the Humboldt Bay community, would like to make personal comments regarding these projects but have found it prohibitive to attend the Coastal Commission meeting in Costa Mesa. We appreciate the need for streamlining the process, but feel there should be case-specific exemptions from that process for projects of this magnitude that may have significant local impacts. Friends of the Dunes believes this is an important topic, and would like the opportunity to be present at the local public hearing to be held in September.

Thank you for your consideration of this matter.

Sincerely,

Bill Weaver
Board President

TONY LABANCA
FOR

19 of 19

P.O. BOX 186 ARCATA, CA 95518 • Phone 707-444-1397
• Fax 707-444-0447 • E-mail info@friendsofthedunes.org • www.friendsofthedunes.org

The proposed project has not fully considered alternatives to disposal of dredge spoils.

In 1995, the U.S. Department of Environmental Protection designated the Humboldt Open Ocean Disposal Site ("HOODS") 3 miles from the Harbor entrance jetty. The HOODS site was designed to accept fine-grained silts and clays, as well as course-grained sand, and has the capacity to receive all project sediments determined to be chemically suitable. In fact, in comments submitted by the EPA regarding the 1998 dredging event, the EPA objected to the proposed surf-zone disposal stating that *"there are potential negative impacts associated with the proposed disposal method and location, and the EPA believes that there is a less damaging and practicable disposal alternative available at the Humboldt Open Ocean Disposal Site"*. In addition to the EPA, other state and federal agencies also commented that the HOODS alternative should be used to avoid impacts to habitat at the surf zone.

It has not been demonstrated by the District or the City of Eureka, in accordance with the Federal Guidelines (40 CFR 230) published pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, and in accordance with the Ocean Dumping regulations (40 CFR Part 227), that disposal at HOODS is not practicable. As an example, the San Francisco Deep Ocean Disposal Site (SF-DODS) is located 50 miles off shore, making for a 100 mile round-trip for San Francisco dredgers. There is a similar situation for EPA designated site off of southern California. This makes the, approximately 20 mile round-trip, to HOODS quite practicable as opposed to dumping the dredge spoils on a beach that is visited frequently by the public.

In addition, it has not been demonstrated that beach disposal would have less environmental impact than use of the HOODS alternative. The contention by the District and the City of Eureka that the dredging activity required for disposal at HOODS is impracticable has not be demonstrated, and the driving reason for this decision appears to be solely financial in nature. Clamshell dredging, the method necessary for disposal at HOODS, if done properly, can be as efficient as the suction-dredge method proposed. Many marinas on the west coast use this method for regular maintenance dredging. Although it may be more expensive and time-consuming, it has not been established by the applicants that this cost or inconvenience renders clamshell dredging not practicable. Under both the 404(b) (1) Guidelines and the Ocean Dumping regulations, the fact that one alternative is more expensive does not mean that it is not practicable.

The proposed project will negatively impact federally listed salmonid species.

Since the 1998 dredging event, two species of salmonids have been federally listed as threatened and critical habitat has been designated in the Humboldt Bay region. The following federally listed species and designated critical habitat may be present in the proposed project area: Southern Oregon/Northern California Coast (SONCC) coho salmon (*Oncorhynchus kisutch)*, California Coastal (CC) Chinook salmon *(O. tshawytcha)*, Northern California (NC) steelhead *(O. mykiss)*; and SONCC designated critical habitat. In addition, the Eureka Channel is used as a migration corridor and a feeding area for both spawning adult salmon and out-migrating smolts.

The proposed "clean-out" procedure used with the suction dredge technique will also result in a higher degree of "take" due to the increased pumping rate. The suction pipe used for this project pumps at approximately 15-20 feet per second, removing 200 cubic yards of solid material per hour. To purge the pipe it will be necessary to lift the cutter-head off the bottom twice a day for 20 minute intervals so water can flush the pipe. At the current suction rate, many more salmonids could be lost than previously anticipated. It has been proven that at suction rate

greater than 3.3 feet per second will not allow certain sized fish to escape the draw of the cutter head. This issue has not been addressed to date.

Again, considering the Biological opinion from NOAA Fisheries will not be completed until late August or early September, we ask that you postpone your decision on these applications until that document can be reviewed.

The Sediment Sampling Analysis conducted for this project is incomplete and methodology for sampling for toxic chemicals is flawed.

The analysis of the sediments conducted for this project reveal elevated levels of semi-volatile organic compounds (Polycyclic Aromatic Hydrocarbons – PAH's) that are listed under 22 Cal. Code § 12000 as known to cause cancer. Several PAH's were found at increased levels at several of the proposed dredge sites, many of these carcinogens, all components of creosote, cause cancer by skin contact. The Department of Health and Human Services has determined that these compounds are known animal carcinogens and the EPA has determined them probable human carcinogens. Disposal of sediments containing these compounds in an area that has very high use by the surfing and beach-going community poses a significant public health risk to these community members.

In addition, Humboldt Bay is listed under Section 303d of the Clean Water Act as impaired for PCB contamination, and the Bay has many sites that are known to be contaminated with Pentachlorophenol ("Penta", a fungicide used by the timber industry as a preservative for decades). Penta is itself a carcinogen, but, more importantly, commercial-grade penta contains dioxin. As it is one of the most sinister reproductive and developmental toxins on the planet, there is no safe level of exposure to dioxin. Further chemical analysis needs to be completed prior to this project moving forward.

The methodology used in the sampling process is also inefficient in determining accurate levels of these toxins. The method of "composite" sampling, where samples from various sites are mixed together for analysis, does not allow the investigator to identify "hot spots" of toxic contamination. Site specific sampling should be conducted to identify these sites.

Humboldt Baykeeper has conducted testing of select sites around the Bay that reveal elevated levels of dioxins and furans. Disposal of these compounds onto the beach poses significant health risks for many user groups of these areas including surfers, beach-goers, and the public in general. Additional testing for dioxin and furans needs to be conducted prior to this start of this project. There is also great concern for exposure, by humans, to these toxins by ingesting shellfish, such as Dungeness crab, that live and breed in these areas. Studies have shown that these toxins bioaccumulate in the food chain and can have serious health affects to those who ingest these shellfish.

Applicants do not demonstrate the overall impacts of surf-zone disposal

It is important to consider that this project is ***not*** a beach replenishment project and is clearly a dredge material disposal project. The applicants have not properly characterized the impact to the beach communities affected by this project which, considering the nature of the disposal is very difficult to assess. The applicants assume that the beach disposal method is equivalent to the depositional method that would be in place if HOODS were used. This is clearly not the case. The HOODS was identified specifically so that disposal of dredge material on a regular basis would have no significant adverse impacts to aquatic resources in the areas surrounding the disposal mound. The proposed surf-zone disposal method is dispersive (non-depositional) and is thereby difficult to characterize for the purposes of determining whether the disposal activities will have impacts on the surrounding environment.

The monitoring studies that have been completed in previous years consider only the site-specific residual impacts, but do not consider the cumulative impacts to the greater marine community. We feel there needs to be greater consideration the resident off-shore marine communities in addition to the existing on-shore, surf zone, analysis.

Friends of the
DUNES

August 10, 2005

Commissioner Bonnie Neely
California Coastal Commission
c/o North Coast District Office
710 E Street, Suite 200
Eureka, CA 95501

Re: Comments Regarding Application 1-04-061 and 1-04-062, Humboldt Bay Harbor, Recreation, and Conservation District and the City of Eureka Maintenance Dredging Project

Dear Commissioner Neely,

As a local non-profit organization involved in conservation of coastal environments, Friends of the Dunes is asking for postponement of voting on permit numbers 1-04-061 and 1-04-062 (maintenance dredging of Humboldt Bay and disposal) from the Coastal Commissions August public hearing meeting. There are many concerns regarding this project and Friends of the Dunes, as well as many members of the Humboldt Bay community, would like to make personal comments regarding these projects but have found it prohibitive to attend the Coastal Commission meeting in Costa Mesa. We appreciate the need for streamlining the process, but feel there should be case-specific exemptions from that process for projects of this magnitude that may have significant local impacts. Friends of the Dunes believes this is an important topic, and would like the opportunity to be present at the local public hearing to be held in September.

Thank you for your consideration of this matter.

Sincerely,

Bill Weaver
Board President

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