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Staff Report:	July 1, 2011
Hearing Date:	July 14, 2011
Commission Action:	

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.:	**1-11-004**
APPLICANT:	**HUMBOLDT BAY ROWING ASSOCIATION**
AGENT:	Winzler & Kelly Consulting Engineers
PROJECT LOCATION:	Along the shoreline of Humboldt Bay at 1535 Waterfront Drive, City of Eureka, Humboldt County (APN 002-241-006).
PROJECT DESCRIPTION:	Convert the use of an existing floating dock and associated gangway originally installed in 2003 from temporary/seasonal use to permanent/year-round use. No additional structures or improvements are proposed.
GENERAL PLAN DESIGNATION:	Water – Development (WD)
ZONING DESIGNATION:	Water – Development (WD)
LOCAL APPROVALS RECEIVED:	City of Eureka Coastal Development Permit Case No. CDP-11-0001 approved April 26, 2011.
OTHER APPROVALS RECEIVED:	(1) Humboldt Bay Harbor, Recreation and Conservation District Permit No. 11-04 issued May 25, 2011; (2) North Coast Regional Water Quality Control Board

	Water Quality Certification No. WDID No. 1B11009WNHU (issued May 18, 2011).
OTHER APPROVALS REQUIRED:	U.S. Army Corps of Engineers Section 10 Individual Permit or Letter of Permission.
SUBSTANTIVE FILE DOCUMENTS:	(1) Mitigated Negative Declaration (MND) prepared by the City of Eureka, March 2011 (SCH #2011032047); (2) MND prepared by the City of Eureka, September 2002 (SCH #2002092079); (3) Commission Coastal Development Permit File No. 1-02-147 (Humboldt State University); and (4) City of Eureka certified Local Coastal Program.

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends approval with special conditions of the coastal development permit application submitted by the Humboldt Bay Rowing Association to convert the use of an existing floating dock and associated gangway along the Eureka waterfront from temporary/seasonal use to permanent/year-round use.

The subject dock, which consists of an 8-ft-x-35-ft open-grate metal gangway connected to a 10-ft-x-20-ft causeway that in turn is connected to a 100-ft-x-8-ft floating dock (Exhibit No. 4), originally was installed in 2003 under CDP No. 1-02-147. Humboldt State University was the permittee of the original permit, and the dock was intended to be used by HSU rowing students and the applicant, a private non-profit community organization, on a temporary, seasonal basis (for use during the HSU crew season, generally September through April) to facilitate recreational boating access to Humboldt Bay until the completion of the Boating Instruction Safety Center (BISC), housed in the HSU Aquatic Center located a short distance to the west of the subject site. The dock is located adjacent to a small boathouse facility licensed by the applicant from the City that stores boats, oars, and rowing machines for use by its members, students, and others in the community. As the BISC and its associated dock have just recently been completed (occupancy is expected by July 31, 2011), the current CDP application proposes to convert the use of the existing temporary dock to year-round, permanent use. Many of the applicant's popular community programs are offered during the summer months, when the existing dock is not currently permitted for use. Special Condition No. 2 of CDP No. 1-02-147 required the seasonal removal of the structure each May 1-September 1. The permittee (HSU) failed to comply with this condition, and the dock has been in place year-round since its 2003 installation.

In addition to the proposed change in intensity of use of the dock structure, the applicant also is proposing to implement an eelgrass (*Zostera marina*) enhancement plan (Exhibit No. 6), under which approximately 200 square feet of unoccupied but presumably suitable eelgrass habitat would be planted with eelgrass (portions of rhizomes with roots and blades attached harvested from adjacent eelgrass beds) to enhance the existing eelgrass beds in the area. A narrow band of eelgrass, originally noted (though not mapped or quantified) in 2002 prior to installation of the existing dock, is growing in an irregularly shaped band in the intertidal mudflat habitat between the existing dock and the shoreline (Exhibit No. 3). It is unclear whether or not the open-grated metal gangway installed in 2003 indirectly impacted eelgrass through shading during the growing season, since the band of eelgrass noted in 2002 prior to installation of the existing dock was not documented in detail. There is however, a modest-sized (~155-square-foot) gap in the band of existing eelgrass below and immediately east of the gangway, as well as additional gaps to the west (~76 ft^2) and east (~124 ft^2) of the gangway (Exhibit No. 3). The proposed eelgrass enhancement would occur in the latter two unoccupied gaps, which are believed to be suitable habitat, to create a larger, more continuous eelgrass bed in the area. Monitoring of the success of the eelgrass enhancement is proposed to occur for a period of five years from the time of transplanting, and if the target enhancement goals fail to meet any of the proposed criteria for success, a supplementary transplant area is proposed to be constructed and planted.

Staff believes that the proposed permanent dock "fill" is an allowable use of fill in coastal waters under Section 30233 of the Coastal Act, there is no feasible less environmentally damaging alternative, adequate mitigation would be required for potential impacts associated with the filling of coastal waters, and marine habitat values would be maintained or enhanced, consistent with Sections 30230, 30231, and 30233 of the Coastal Act. Staff recommends Special Condition No. 1, which would require the applicant to implement the final revised eelgrass enhancement plan as proposed. The Commission's ecologist, DFG environmental scientists, and other agency personnel have reviewed and approved the final revised plan, which would enhance eelgrass and minimize adverse environmental effects. Staff also recommends Special Condition No. 2, which would require that prior to permit issuance the applicant provide written verification for the Executive Director's review and approval that the U.S. Coast Guard and NOAA Nautical Data Branch have been notified of the nature and location of the dock facility so that navigational information can be appropriately updated as necessary to ensure that the dock does not pose a navigational hazard.

As conditioned, staff believes that the proposed project is consistent with the wetland fill, marine resources, water quality protection, recreational boating, public access, ESHA protection, visual resources protection, and other applicable policies of the Coastal Act.

The motion to adopt the staff recommendation of Approval with Special Conditions is shown below on Page 4.

STAFF NOTES

1. Standard of Review

The proposed project is located in the City of Eureka. Eureka has a certified LCP, but the portion of the project that is the subject of CDP Application No. 1-11-004 is within the Commission's retained jurisdiction in submerged and tidal areas along Humboldt Bay. Therefore, the standard of review that the Commission must apply to the project is the Coastal Act.

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. 1-11-004 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. Implementation of Final Revised Eelgrass Enhancement Plan

The final revised eelgrass enhancement plan (March 2011, Exhibit No. 6) shall be implemented as proposed. Any proposed changes to the approved final plan shall be reported to the Executive Director. The permittee shall submit annual monitoring reports to the Executive Director by October 31 each year throughout the duration of the monitoring program. If the target enhancement goals fail to meet any of the success criteria identified in the final revised plan by the end of the monitoring program, the permittee shall submit a revised or supplemental transplant program to compensate for those portions of the original program that did not meet the success criteria. The revised or supplemental transplant program shall be processed as an amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required. No changes to the final revised plan shown in the attached Exhibit No. 6 shall occur without a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

2. NOAA Nautical Chart Revision

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall provide written verification for the Executive Director's review and approval that the applicant has submitted to the U.S. Coast Guard and the National Oceanic and Atmospheric Administration (NOAA):

(a) as-built drawings, blueprints, or other engineering documents which depict the completed development;

(b) geographic coordinates of the location, using a Differential Geographic Positioning System (DGPS) unit or comparable navigational equipment; and

(c) the applicant's point of contact and telephone number.

3. Army Corps of Engineers Approval

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

IV. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

A. Site Description, Background, & Proposed Project

The project site is located in the city of Eureka along the waterfront of Humboldt Bay adjacent to the property known as the Carson Mill Site (1535 Waterfront Drive, APN 002-241-006). The property is owned by the City and is developed with an existing temporary private floating dock, constructed in 2003, and an existing boathouse, permitted by the City in 2001 (Eureka CDP Case No. CDP-12-01). The site is adjacent to Halvorsen Park, a 3.5-acre city park, and a public paved trail runs parallel to the bay through the site. Existing land uses surrounding the subject property include the Sacco amphitheater and Adorni Recreational Center to the west, Waterfront Drive and a mixture of commercial and residential uses to the south, a public parking lot and public boat launch located approximately 350 feet to the east adjacent to the State Route 255 bridge, and the Woodley Island Marina across the bay to the north (see Exhibit Nos. 1 & 2). There also is another public boat launch, the Bonnie Gool public dock, located approximately 1,000 feet west of the subject site.

In 2003 the Commission and the City each granted coastal development permits to Humboldt State University for the construction of the existing dock, which was to be used on a temporary, seasonal basis to facilitate boat access to Humboldt Bay for the Humboldt State University crew and the applicant, a private non-profit community organization. The existing dock consists of an 8-ft-x-35-ft open-grate metal gangway connected to a 10-ft-x-20-ft causeway that in turn is connected to a 100-ft-x-8-ft floating dock (Exhibit No. 4). Construction of the dock did not involve the installation of piles or other in-water supports, as the structure is supported entirely from onshore anchors (concrete footings anchored over existing riprap along the shoreline). The boat dock originally was constructed to provide temporary bay access for HSU rowing team students and HBRA members (who license the boathouse facility on the City's property adjacent to the subject site that stores boats, oars, and rowing machines) until the completion of the Boating Instruction Safety Center (BISC), housed in the HSU Aquatic Center located on the west side of the Adorni Recreational Center. Construction of the BISC and associated dock was just recently completed (occupancy expected by July 31, 2011). The subject existing dock originally was proposed and authorized for seasonal use during the HSU crew season, generally September through April, until completion of the BISC and associated new dock at that location.

The applicant is now proposing to convert the use of the existing dock and associated gangway from temporary/seasonal use to permanent/year-round use. The dock facility is proposed to continue to be used (as it has been since its installation in 2003) by HBRA members (HSU crew will now use the dock and storage facilities located at the BISC), but the applicant states that non-HBRA groups, including, but not limited to, kayakers and canoes, the Yacht Club, local outdoor outfitters (for demonstrations), and others, have been and could continue to use the dock facility with the applicant's permission.

The applicant maintains a chain and sign at the end of the gangway identifying the structure as private and listing contact information for obtaining use by permission.

In addition to the proposed change in intensity of use of the dock structure from temporary/seasonal use to permanent/year-round, the applicant also is proposing to implement an eelgrass (*Zostera marina*) enhancement plan (Exhibit No. 6), under which approximately 200 square feet of unoccupied but presumably suitable eelgrass habitat would be planted with eelgrass (portions of rhizomes with roots and blades attached harvested from adjacent eelgrass beds) to enhance the existing eelgrass beds in the area. A narrow band of eelgrass, originally noted (though not mapped or quantified) in 2002 prior to installation of the existing dock facility, is growing in an irregularly shaped band in the intertidal mudflat habitat between the existing dock and the shoreline. Eelgrass beds are considered to be a type of environmentally sensitive habitat worthy of protection because they function as important shelter, foraging, and in some cases spawning habitats for a variety of fish species. The long, green leaves of the aquatic flowering plant also are an important food source for certain birds, such as black brant (small migratory geese). Eelgrass growth is sensitive and susceptible to human-related direct and indirect impacts, such as direct contact with boat bottoms and indirect shading from over-water structures (such as piers and gangways). It is unclear whether or not the open-grated metal gangway installed in 2003 indirectly impacted eelgrass through shading during the growing season, since the band of eelgrass noted in 2002 prior to installation of the existing dock facility was not documented in detail. There is however, a modest-sized (~155-square-foot) gap in the band of existing eelgrass below and immediately east of the gangway, as well as additional gaps to the west (~76 ft^2) and east (~124 ft^2) of the gangway (Exhibit No. 3). The proposed eelgrass enhancement would occur in the latter two unoccupied gaps, which are believed to be suitable habitat, to create a larger, more continuous eelgrass bed in the area.

B. Recreational Boating Access

Section 30220 of the Coastal Act states 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 of the Coastal Act Section encourages increased recreational boating use of coastal waters by, among other means, increasing public launching facilities. Section 30234 of the Coastal Act requires the protection and, where feasible, upgrading of facilities serving the recreational boating and commercial fishing industries. The policy further requires that proposed recreational boating facilities (where feasible) be designed and located in such a fashion so as not to interfere with the needs of the commercial fishing industry.

As discussed above, public boating access in the vicinity of the site is available from the City's boat ramp located approximately 350 feet to the east, the Bonnie Gool public dock located approximately 1,000 feet west, the Woodley Island Marina across the bay to the north, and other dock facilities adjacent to the Adorni Recreational Center and HSU

Aquatic Center to the west. The proposed project will increase recreational boating access in the area by providing an additional year-round facility where rowing recreationists can easily access the water (as the subject dock was specifically designed to facilitate water access for large crew boats). Although the subject dock is private and maintained primarily for the use of the applicant, the HBRA is a private, non-profit community organization whose mission is (according to its website) "to utilize its resources, including those of the Humboldt Bay, to provide for our local community, as well as for visitors to our area, the opportunity to participate in the recreation and sport of rowing by providing the equipment, instructions for its use, and membership in the association." Additionally, as previously discussed, the applicant states that non-HBRA groups, including, but not limited to, kayakers and canoes, the Yacht Club, local outdoor outfitters (for demonstrations), and others, have been and could continue to use the dock facility with the applicant's permission. The applicant maintains a chain and sign at the end of the gangway identifying the structure as private and listing contact information for obtaining use by permission.

Therefore, the Commission finds that the proposed project is consistent with Sections 30220, 30224, and 30234 of the Coastal Act, because by increasing the intensity of the use of the existing dock from temporary/seasonal to permanent/year-round use, the project as proposed protects water-oriented recreational activities in coastal waters, increases recreational boating in coastal waters, and will not interfere with the ability of boaters to launch boats into the bay.

C. Fill in Coastal Waters and Protection of the Marine Environment

The Coastal Act defines fill as including "*earth or any other substance or material… placed in a submerged area.*" The original approval of the dock structure did not involve the placement of any permanent structural fill in coastal waters such as piles, as the dock was designed to entirely be supported from onshore anchors. However, because the dock floats up and down with the tide and rests on submerged areas of Humboldt Bay during low tide, it represents a form of fill. The proposed project would not add any piles, or expand the size of the existing floating dock. However, the dock "fill" originally was authorized to be installed on a temporary basis only, and the proposed project would authorize the dock fill on a permanent basis. The Commission must consider whether authorizing the fill on a permanent basis is consistent with Coastal Act policies addressing the protection of the marine environment, including, but not limited to the requirements of Section 30233 regarding the filling of coastal waters.

Several Coastal Act policies address protection of the marine environment from the impacts of development such as the construction of boat docks. These policies include Sections 30230, 30231, and 30233. Section 30230 applies generally to any development in marine environments. Section 30231 applies broadly to coastal waters, streams, wetlands, estuaries, and lakes. Section 30233 applies to any diking, filling, or dredging

project of open coastal waters. Installation of a floating dock within Humboldt Bay is a form of filling open coastal waters, wetlands, or an estuary.

Section 30230 of the Coastal Act states, in applicable part, as follows:

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

Section 30231 of the Coastal Act states as follows:

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

Section 30233(a) of the Coastal Act provides, in applicable part, as follows:

> *(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:*
>
> …
>
> *(3) 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.*
>
> …
>
> *(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary…*
>
> …

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

a. that the purpose of the filling, diking, or dredging is for one of the eight uses allowed under Section 30233;

b. that feasible mitigation measures have been provided to minimize adverse environmental effects;

c. that the project has no feasible less environmentally damaging alternative; and

d. that the biological productivity and functional capacity of the habitat shall be maintained and enhanced where feasible.

Each is discussed separately below.

(a) Allowable Use for Dredging and Filling of Coastal Waters

The first test set forth above is that any proposed fill, diking or dredging must be for an allowable purpose as specified under Section 30233 of the Coastal Act. The proposed project involves increasing the duration of previously authorized dock fill from a temporary basis to a permanent facility for the use of the applicant and other recreational boaters in the community.

Section 30233(a)(3) allows fill in open coastal waters, other than wetlands, including streams, estuaries, and lakes, for new or expanded boating facilities for public recreational piers that provide public access and recreational opportunities, provided there are no less environmentally damaging alternatives and that feasible mitigation measures have been provided to minimize adverse environmental effects. The proposed permanent dock fill is associated with a boating facility that would provide recreational opportunities on Humboldt Bay. Therefore, to the extent that the proposed project is the least environmentally damaging alternative and mitigation measures will minimize adverse environmental effects (see below), the proposed project is consistent with the use limitations under Section 30233(a)(3).

(b) Feasible Mitigation Measures

The second test set forth by the above-cited policies is whether feasible mitigation measures have been provided to minimize adverse environmental impacts. The potential adverse effects to the marine environment of maintaining the dock fill in coastal waters on a year-round permanent basis as proposed and applicable mitigation measures are discussed below.

(1) Eelgrass

The potential adverse impacts on the marine environment resulting from the installation of a new dock facility at the subject site were analyzed in the findings supporting the original permit authorization of the new dock (CDP No. 1-02-147). The potential impacts centered primarily on the project's potential effects on eelgrass reportedly present in the area between the proposed new dock location and the shoreline. The project as approved was designed to avoid impacts to eelgrass and eelgrass habitat by using light-penetrating

materials for the gangway (metal mesh) and by requiring the dock's seasonal removal during the peak eelgrass growing season (May 1-September 1) to minimize shading impacts. Special Condition No. 1 of CDP No. 1-02-147 required the dock structure to be constructed according to the approved plans, and Special Condition No. 2 required the seasonal removal of the structure. The permittee of CDP No. 1-02-147 (Humboldt State University) failed to comply with the condition requiring the dock's seasonal removal, and the dock has been in place year-round since its 2003 installation.

As discussed above, the eelgrass at the subject site was noted and generally described in the CDP No. 1-02-147 project file, though it was not quantified or mapped in detail. The eelgrass at the site was mapped in the summer of 2010 by the applicant's consultant as seen in Exhibit No. 3. The 2010 mapping shows a modest-sized (~155-square-foot) gap in the band of existing eelgrass below and immediately east of the gangway, as well as additional gaps to the west (~76 ft^2) and east (~124 ft^2) of the gangway. It is possible that the ~155-square-foot gap in the band of existing eelgrass below and immediately east of the gangway was caused by shading to the area resulting from the gangway being left in place during the eelgrass growing season (generally May-September), out of compliance with Special Condition No. 2 of CDP No. 1-02-147. However, because the band of eelgrass mapped in 2010 contains other gaps that, based on their location, could not be attributed to shading impacts from the dock structure, and because no detailed mapping or quantification of eelgrass in the area was documented prior to installation of the dock in 2003, it is impossible to positively attribute the 155 square feet of unoccupied eelgrass habitat to indirect shading impacts from the gangway.

Nevertheless, as discussed above, the applicant is proposing to implement an eelgrass enhancement plan (Exhibit No. 6), where approximately 200 square feet of unoccupied but presumably suitable eelgrass habitat would be planted with eelgrass (portions of rhizomes with roots and blades attached harvested from adjacent eelgrass beds) to enhance the existing eelgrass beds in the area. The proposed eelgrass enhancement would occur in the ~76 ft^2 and ~124 ft^2 of unoccupied eelgrass habitat (unoccupied eelgrass transplant areas may vary somewhat in size and location depending on the results of an updated eelgrass survey) to create a larger, more continuous eelgrass bed in the area. Monitoring of the success of the eelgrass enhancement is proposed to occur for a period of five years from the time of transplanting, with annual monitoring reports to be submitted to the Commission, the U.S. Army Corps of Engineers, the City of Eureka, the Humboldt Bay Harbor, Recreation & Conservation District, and the Department of Fish and Game. If the target enhancement goals fail to meet any of the proposed criteria for success [e.g., the enhancement area shall achieve a minimum of 70 (85 and 100) percent of the minimum area of eelgrass and 30 percent (70 and 85) of target density in the first (second and third through fifth) year], a supplementary transplant area is proposed to be constructed and planted, with monitoring, success, reporting, and completion requirements to generally follow the same requirements outlined in the proposed enhancement plan.

The proposed eelgrass enhancement plan has been reviewed by both the Commission's ecologist (John Dixon) and by the various other agencies, including DFG environmental scientists and NOAA-Fisheries biologists. Both Dr. Dixon and DFG and NOAA-Fisheries staff agree that the proposed plan is acceptable and will enhance eelgrass and minimize adverse environmental effects. To ensure that the applicant implements the eelgrass enhancement plan as proposed, the Commission attaches **Special Condition No. 1**. This condition requires that the final revised eelgrass enhancement plan (March 2011, Exhibit No. 6) be implemented as proposed. The condition further requires that the permittee submit monitoring reports to the Executive Director within 30 days of completion of each annual monitoring period throughout the duration of the monitoring program. If the target enhancement goals fail to meet any of the success criteria identified in the final revised plan by the end of the monitoring program, a revised or supplemental transplant program must be submitted and processed as an amendment to this coastal development permit.

As conditioned, the Commission finds that feasible mitigation measures have been incorporated into the project to minimize adverse environmental effects consistent with Section 30233(a).

(2) Marine Resources and Water Quality

The subject dock is located in Humboldt Bay offshore of the City of Eureka. This area is extensively used for navigation, recreational boating, and waterborne commerce. The boat dock is located in an area of open water through which vessels may pass freely. Should a vessel collide with the dock, there is potential for a spill of oil and other hazardous materials to the marine environment. Such a spill could damage sensitive eelgrass habitat adjacent to the dock, as well as other sensitive fish and wildlife species found in the area, which would conflict with Sections 30230 and 30231 of the Coastal Act that set forth provisions for the protection of coastal water quality and biological productivity.

In approving the permit for the installation of the existing dock facility on a temporary basis under CDP No. 1-02-147, the Commission found that a new dock at the subject site may indeed pose a navigational hazard if boaters were unaware of its presence in the bay. Recreational boaters and other mariners rely on updated charts and other nautical information to safely navigate. Using obsolete chart information may create dangerous situations for vessel operators. If mariners are not properly notified of the development, the existence of the boat dock has the potential to create a navigational hazard. After consulting with NOAA staff who confirmed that the subject dock (though originally proposed to be seasonal and temporary) could pose a navigational hazard if boats were unaware of its presence in the bay and that updates to navigational information (e.g., navigational databases, nautical charts, and updated editions of the Coast Pilot 7) may be necessary, the Commission attached Special Condition No. 5 to CDP No. 1-02-147 to require that the permittee notify the U.S. Coast Guard and NOAA's Nautical Data Branch

of the nature and location of the development within 30 days of completion of the dock installation. According to Commission CDP File No. 1-02-147, this special condition never was satisfied. Therefore, the Commission attaches **Special Condition No. 2** to the subject permit. This condition requires that prior to permit issuance the applicant provide written verification for the Executive Director's review and approval that the U.S. Coast Guard and NOAA Nautical Data Branch have been notified of the nature and location of the dock facility so that navigational information can be appropriately updated as necessary.

Therefore, as conditioned, the Commission finds that the biological productivity and quality of coastal waters will be maintained, and the project, as conditioned, is consistent with Sections 30230, 30231, and 30233 of the Coastal Act.

(c) Alternatives

The third test set forth by the Commission's fill policies is that the proposed fill project must have no feasible less environmentally damaging alternative. In this case, the Commission has considered the various identified alternatives and determines that there are no feasible less environmentally damaging alternatives to the project as conditioned. Alternatives that have been identified include: (1) the "no project" alternative; (2) permitting the dock as a seasonal facility only; and (3) using different dock materials than those currently in place.

(1) Alternative 1: "No Project"

One alternative to the proposed project is the "no project" alternative, i.e., removing the permitted temporary dock now that the BISC and its associated dock have been completed, as originally proposed. This alternative would not protect or increase water-oriented recreational activities in coastal waters (as discussed in the finding on Recreational Boating Access above). Instead, the no project alternative would require the applicant's members (including the HBRA Master and Junior rowing programs and summer learn-to-row clinics) and other boaters to transport boats stored in the adjacent boathouse to other boat launching facilities around the bay and to use a different dock facility not specifically designed to facilitate access for rowing and crew crafts. Because the boats are up to 60-feet-long, transporting them from the boathouse to other facilities is cumbersome and would potentially impact other public boat launching facilities. This alternative also would result in the killing (via dock removal, which equates to habitat destruction) of the numerous fouling organisms that currently inhabit the dock itself (e.g., various species of mussels, barnacles, algae, etc.). Although these organisms may not be considered environmentally sensitive, they nonetheless are part of the marine food web and contribute to the ecosystem. The Commission thus finds that the no project alternative would not successfully accomplish project objectives and is not a feasible less environmentally damaging alternative to the proposed project as conditioned.

(2) Alternative 2: Permitting the dock as a seasonal facility only

A second alternative to the proposed project is to permit the dock on a permanent basis as a seasonal dock structure only. This alternative would involve removing the dock from the water entirely each year from May 1 through September 1. Similar to the above discussion, this alternative would result in the killing of the numerous fouling organisms that inhabit the dock itself and contribute to the marine ecosystem. Additionally, it would not increase boat access to the bay for the applicant and other recreational boaters, as the dock would be unavailable for use during the summer months, which is the peak use period for the dock during which the applicant offers many recreational programs such as adult and junior summer rowing clinics, the "Taste of Rowing" event, crew team activities, sculling lessons, and master's sweep and team rowing competitions. The Commission thus finds that permitting the dock as a seasonal facility only would not successfully accomplish project objectives and is not a feasible less environmentally damaging alternative to the proposed project as conditioned.

(3) Alternative 3: Using different materials than those currently in place

This alternative would involve replacing some or all of the existing dock materials with different materials that would cause less shading impacts than those materials used in the temporary structure. For example, the existing metal-mesh gangway could be removed and replaced with a gangway made of an even greater light-penetrating material (e.g., transparent heavy-duty plastic), or other parts of the existing dock structure could be replaced or upgraded.

Removing and replacing any portion the dock structure with a different material or part not planned for and specified in the original project design could compromise the stability and functionality of the entire structure and would result in the same environmental impacts (to fouling organisms inhabiting the existing floating dock and causeway) discussed above for the other alternatives. As material used for a floating dock gangway must be durable, light-weight, stable, slip-resistant, and long-lasting, there are limited options available that offer light-penetrating capabilities beyond the existing open-grate gangway. In addition, most such alternatives would require the driving of stabilizing piles to support and/or secure the lighter-weight dock structure, which would displace bottom habitat, result in additional permanent bay fill that would create its own shading impact, and cause concussive acoustic impacts to fish during pile driving activities. Furthermore, as previously discussed, because it is not clear that the unoccupied eelgrass area below and east of the gangway was caused by indirect shading impacts from the gangway, it cannot be assumed that a more transparent gangway would lead to an increase in eelgrass in the area. Special Condition No. 1, as discussed above, will ensure that eelgrass in the area is enhanced by requiring the applicant to implement the proposed final revised eelgrass enhancement plan, which contains provisions and remedial actions for ensuring success.

Therefore, the Commission finds that the alternative of using different materials for the dock structure than those currently in place is not a feasible less environmentally damaging alternative to the proposed project as conditioned.

(d) Maintenance and Enhancement of Marine Habitat Values

The fourth general limitation set by Sections 30230, 30231, and 30233 is that any proposed dredging or filling project in coastal waters must maintain and enhance the biological productivity and functional capacity of the habitat, where feasible.

As discussed in the section of this finding on mitigation, the conditions of the permit will ensure that the project will not have adverse impacts on any coastal resources. By avoiding impacts to coastal resources, the Commission finds that the project will maintain the biological productivity and functional capacity of the habitat consistent with the requirements of Sections 30230, 30231, and 30233 of the Coastal Act.

In conclusion, the Commission finds that the proposed project is an allowable use, there is no feasible less environmentally damaging alternative, adequate mitigation is required for potential impacts associated with the filling of coastal waters, and marine habitat values will be maintained or enhanced. Therefore, the Commission finds that the proposed development, as conditioned, is consistent with Sections 30230, 30231, and 30233 of the Coastal Act.

D. Protection of Environmentally Sensitive Habitat Areas

Section 30240 of the Coastal Act Section states that only resource-dependent uses shall occur within environmentally sensitive habitat areas (ESHA), that ESHA shall be protected against any significant disruption of habitat values, and that development in areas adjacent to ESHA shall be sited and designed to prevent significant adverse impacts to the ESHA. The waters of Humboldt Bay, as well as many of the plants and animals inhabiting the bay, including eelgrass, constitute ESHA under the Coastal Act's definition (Section 30107.5): "*Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.*

Section 30240 of the Coastal Act states as follows:

> *(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.*
>
> *(b) Development in areas adjacent to environmentally sensitive habitat areas and 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 habitat and recreation areas.*

The applicant is proposing to implement an eelgrass enhancement plan within and around existing eelgrass habitat in the bay as described in Exhibit No. 6. Specifically, the applicant proposes to harvest donor eelgrass plants (not more than two days prior to transplanting) by removing substrate from around the rhizome, then uprooting the rhizome with roots and blades attached. This method creates minimum disturbance to surrounding eelgrass bed and substrate. No more than 10 percent of an existing bed will be harvested for transplanting purposes. Plants harvested will be taken in a manner to thin an existing bed without leaving any noticeable bare areas. Donor plants will be transplanted into nearby unoccupied suitable habitat identified during a pre-project survey proposed to be conducted during the lowest daylight tides in July 2011 (the results of the 2010 survey are shown in Exhibit Nos. 3 and 5 and the 2011 survey results are expected to be similar). As described above, the transplant areas would occur in the ~76 ft^2 and ~124 ft^2 gaps of unoccupied eelgrass habitat (unoccupied eelgrass transplant areas may vary somewhat in size and location depending on the results of the 2011 eelgrass survey). The Commission finds that the proposed eelgrass enhancement within eelgrass ESHA constitutes a resource-dependent use and therefore is allowable under Section 30240(a).

The proposed eelgrass enhancement plan has been reviewed by both the Commission's ecologist (John Dixon), Department of Fish and Game environmental scientists, and other agency staff. Both Dr. Dixon and DFG staff agree that the proposed plan is acceptable and will protect adjacent eelgrass beds from any significant disruption of habitat values. To ensure that the applicant implements the enhancement plan as proposed, the Commission attaches **Special Condition No. 1**. As discussed above, this condition requires that the final revised eelgrass enhancement plan (March 2011, Exhibit No. 6) be implemented as proposed. No changes to the final revised plan shall occur without a Commission amendment to this coastal development permit. Thus, the Commission finds that the proposed eelgrass enhancement project, as conditioned, will be sited and designed to prevent impacts which would significantly degrade adjacent eelgrass ESHA and will be compatible with the continuance of the adjacent eelgrass ESHA.

Therefore, the Commission finds that the proposed development is consistent with Section 30240 of the Coastal Act, as the development is for a resource-dependent use and will be sited and designed to prevent impacts which would significantly degrade adjacent eelgrass ESHA and will be compatible with the continuance of the adjacent eelgrass ESHA.

E. Visual Resources

Section 30251 of the Coastal Act states that the scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance and requires, in applicable part, that permitted development be sited and designed to protect views to

and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, and to be visually compatible with the character of surrounding areas.

The boat dock facility is visible from many vantage points in and around Humboldt Bay, including from the public paved trail along the waterfront immediately adjacent to the site, from the State Route 255 bridge over the bay, and from the nearby waters of Humboldt Bay. The proposed change in the intensity of the use of the existing dock facility will not result in a change to the site that would affect visual resources. The appearance of the dock will not change, as there are no physical changes proposed to the size, shape, and materials of the dock. The site is surrounded by similar boat dock facilities including those at the Woodley Island Marina to the north, the Bonnie Gool public dock ~1,000 feet to the west, the public boat ramp located ~350 feet to the east, and other dock facilities adjacent to the Adorni Recreational Center and HSU Aquatic Center to the west. The year-round chain across the gangway allows continued views through the site while providing security and limiting access to the private dock.

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

F. Public Access

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

As previously described, the existing boat dock is located immediately adjacent to a public paved trail that parallels Humboldt Bay that is used by the public for walking, jogging, birding, and similar passive recreational uses. The proposed conversion of the existing boat dock from temporary/seasonal use to permanent/year-round use will not impede or otherwise interfere with public access and recreational uses along the public trail. The dock facility is proposed to continue to be used (as it has been since its installation in 2003) by HBRA members (HSU crew will now use the dock and storage facilities located at the BISC), but the applicant states that non-HBRA groups, including, but not limited to, kayakers and canoes, the Yacht Club, and local outdoor outfitters (for

demonstrations), have been and could continue to use the dock facility with the applicant's permission. The applicant maintains a chain and sign at the end of the gangway identifying the structure as private and listing contact information for obtaining use by permission. Various public boating access points are located in the vicinity of the project site, including the City's boat ramp located approximately 350 feet to the east adjacent to the State Route 255 bridge, the Bonnie Gool public dock located approximately 1,000 feet west of the subject site, the Woodley Island Marina across the bay to the north, and other dock facilities adjacent to the Adorni Recreational Center and HSU Aquatic Center to the west. None of these other public boating facilities would be affected by the proposed project.

The proposed conversion of the existing boat dock from temporary/seasonal use to permanent/year-round use will not adversely affect public access, but rather will provide year-round access to the bay for recreational boaters affiliated with the Humboldt Bay Rowing Association as well as various non-HBRA groups (e.g., kayakers and canoes, the Yacht Club, local outdoor outfitters, etc.) who have and could continue to use the dock with HBRA permission. The proposed change in the intensity of the use of the dock will not displace any existing bay access facilities, as the project will simply provide a year-round docking facility where currently only seasonal access is permitted. In addition, the project will not increase the demand for public access facilities, as it will not increase population density in the area and will not otherwise draw more people to the waterfront. Thus, the Commission does not find it necessary to require that public access be provided as a result of the proposed project.

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

G. Other Approvals

The project is located within Humboldt Bay and is subject to the review and approval of the Humboldt Bay Harbor District, the North Coast Regional Water Quality Control Board, and the U.S. Army Corps of Engineers (USACE). The applicant has applied for and received a permit from the District (Permit No. 11-04 issued May 25, 2011) and the Board (WQC WDID No. 1B11009WNHU issued May 18, 2011) for approval of the proposed project. The applicant also has consulted with DFG regarding the proposed eelgrass enhancement plan and has incorporated DFG recommendations into the final revised plan (Exhibit No. 6). Approval has not yet been obtained from the Corps.

Pursuant to the Federal Coastal 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 USACE, the Corps will not issue a permit until the Commission approves a

federal consistency certification for the project or approves a permit. To ensure that the project ultimately approved by the Corps is the same as the project authorized herein, the Commission attaches **Special Condition No. 3**, which requires the applicant, prior to the commencement of development, to demonstrate that all necessary approvals from the Corps for the proposed project have been obtained.

H. Alleged Violation

Certain development has taken place at the project site in violation of the coastal development permit conditions of a previous CDP granted for development at the site (i.e., Special Condition No. 2 of CDP No. 1-02-147, which granted temporary authorization to HSU for the installation and use of the dock as a seasonal facility, required the seasonal removal of the dock each May 1-September 1). However, consideration of the current application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Approval of this permit does not constitute a waiver of any legal action with regard to the alleged violations nor does it constitute an admission as to the legality of any development undertaken on the subject site without a coastal development permit.

I. California Environmental Quality Act

The City of Eureka served as the lead agency for the project for CEQA purposes. The City prepared a Mitigated Negative Declaration for the project in March 2011 (SCH #2011032047).

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

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

impacts, can be found consistent with the requirements of the Coastal Act and to conform to CEQA.

EXHIBITS:

1. Regional Location Map
2. Vicinity Map
3. Site Plan
4. Existing and Proposed Dock & Gangway Plans
5. 2010 Eelgrass Survey (excerpt)
6. Final Revised Eelgrass Enhancement Plan (March 2011 version)

ATTACHMENT A

STANDARD CONDITIONS

1. Notice of Receipt and Acknowledgment:

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

2. Expiration:

   If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Interpretation:

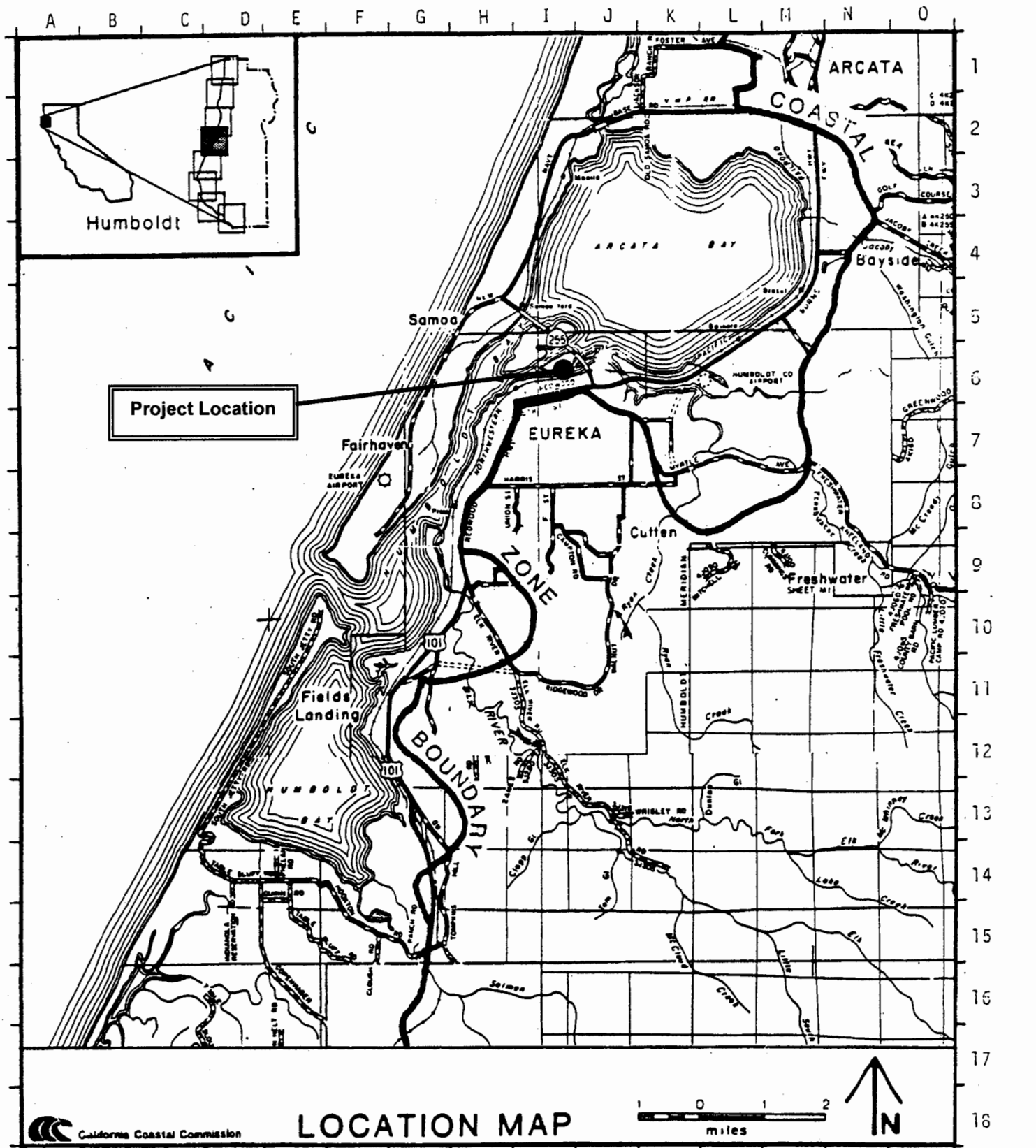
   Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.

4. Assignment:

   The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. Terms and Conditions Run with the Land:

   These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.



California Coastal Commission

LOCATION MAP

County of Humboldt

EXHIBIT NO. 1

APPLICATION NO.
CDP No. 1-11-004
Humboldt Bay Rowing Assoc.
REGIONAL LOCATION MAP

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Cartography: GLD

Parcels

Project Area

Roads

N

0 200 400 Feet

1 inch = 200 feet printed at 8.5x11

Sources: NOAA Fisheries: Aerial: 2009 0.5 meter resolution; StreetMap USA - TeleAtlas

WINZLER & KELLY

www.w-and-k.com

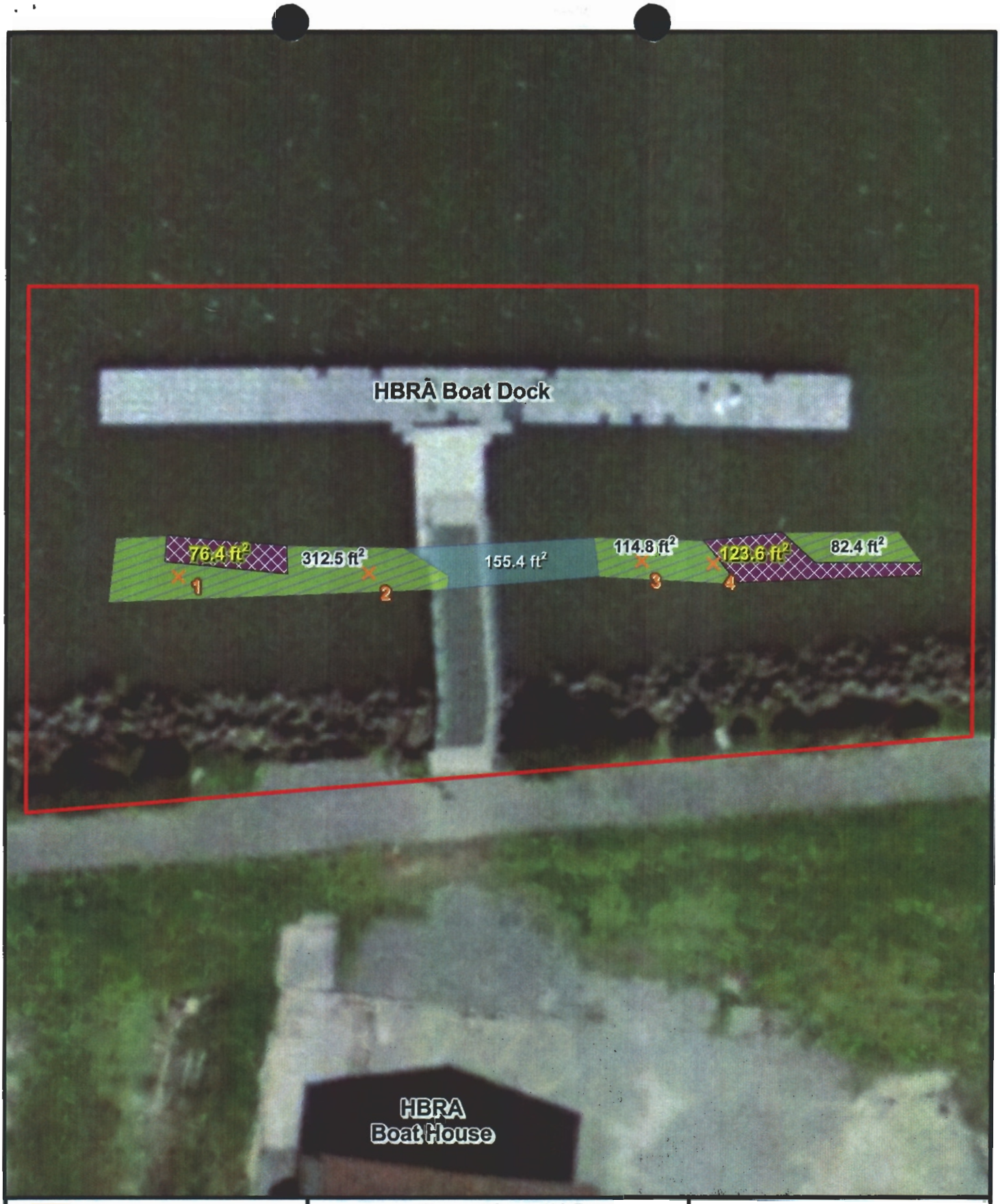
EXHIBIT NO. 2

APPLICATION NO.

1-11-004

HUMBOLDT BAY ROWING ASSOCIATION

VICINITY MAP



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Cartography: GLD

Project Area
Eelgrass - 509.7 ft²
Impact Area 155.4 ft²
Proposed Eelgrass Mitigation Areas 200 ft²
Eelgrass plot location

0 10 20 Feet

1 inch = 20 feet printed at 8.5x11

Sources: City of Eureka GIS: Aerial 2005, 0.5 foot resolution; StreetMap USA - TeleAtlas

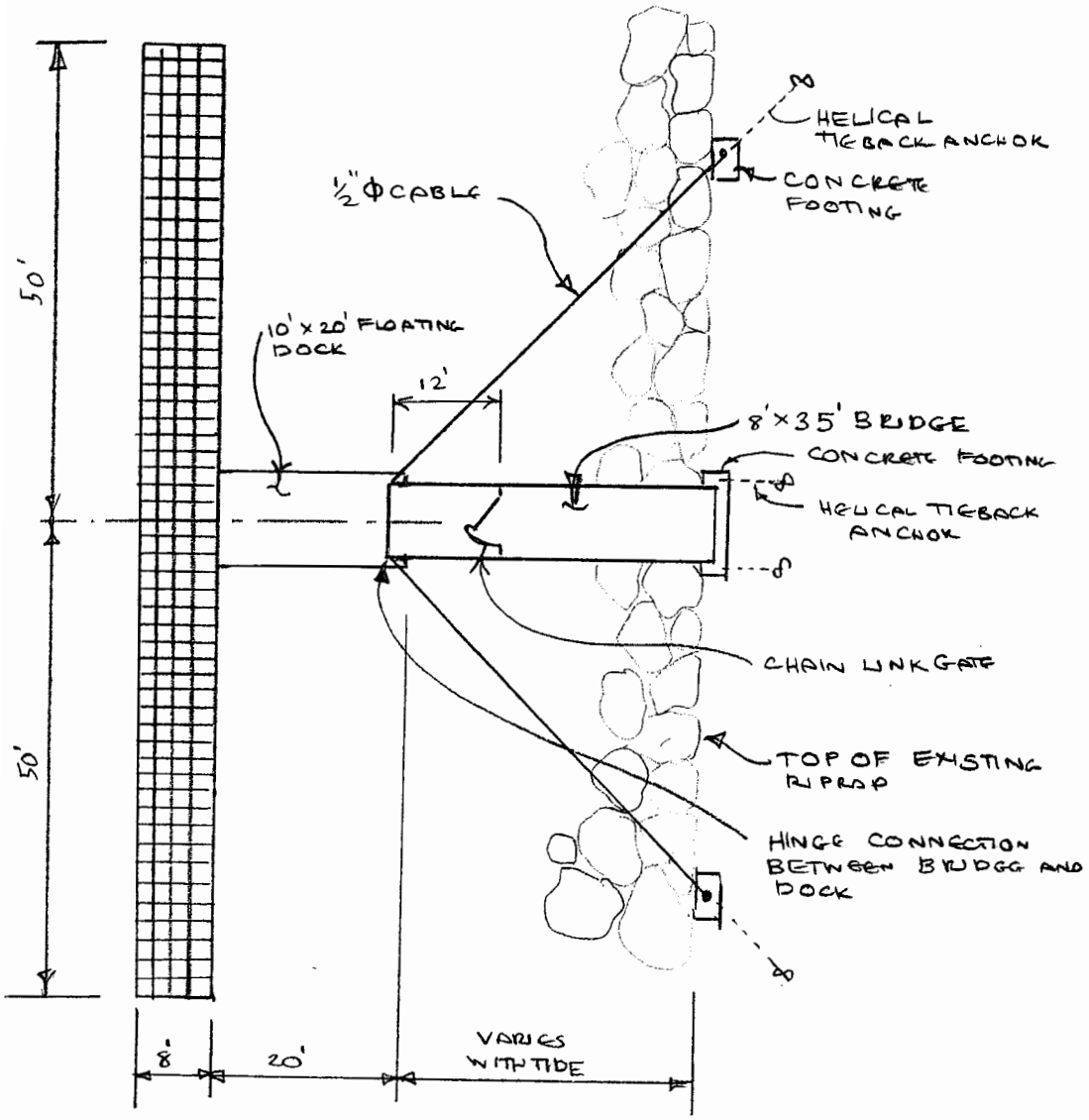
WINZLER & KELLY
www.w-and-k.com

EXHIBIT NO. 3
APPLICATION NO.
1-11-004
HUMBOLDT BAY ROWING ASSOCIATION
SITE PLAN

WINZLER & KELLY
CONSULTING ENGINEERS
633 Third Street, Eureka, CA 95501-0417
(707) 443-8326 / FAX (707) 444-8330

By _____ Date 11/20/02 Client Figure 3 Sheet No. _____ of _____

Subject HSU Temporary Seasonal Dock Job No. _____



PLAN
1" = 20'-0"

EXHIBIT NO. 4
APPLICATION NO.
1-11-004
HUMBOLDT BAY ROWING ASSOCIATION
DECK & GANGWAY PLANS
(1 of 2)

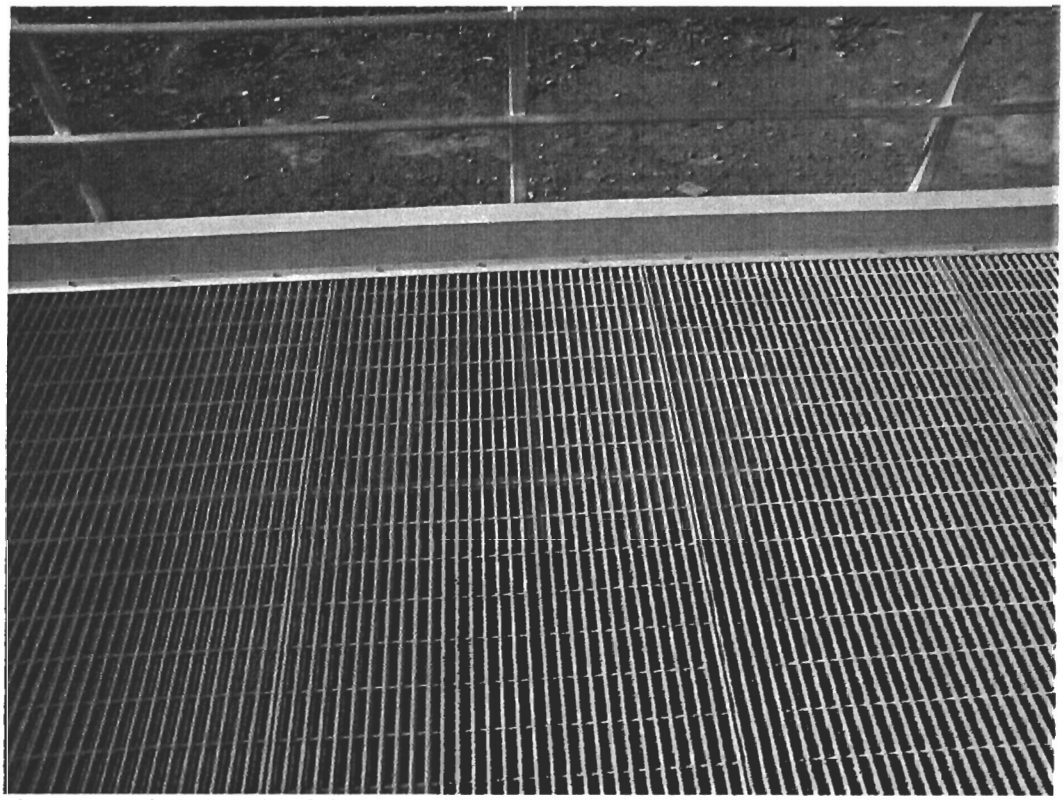


Photo 1 – Photograph of the 8'x35' gangway to be used to support the floating dock.

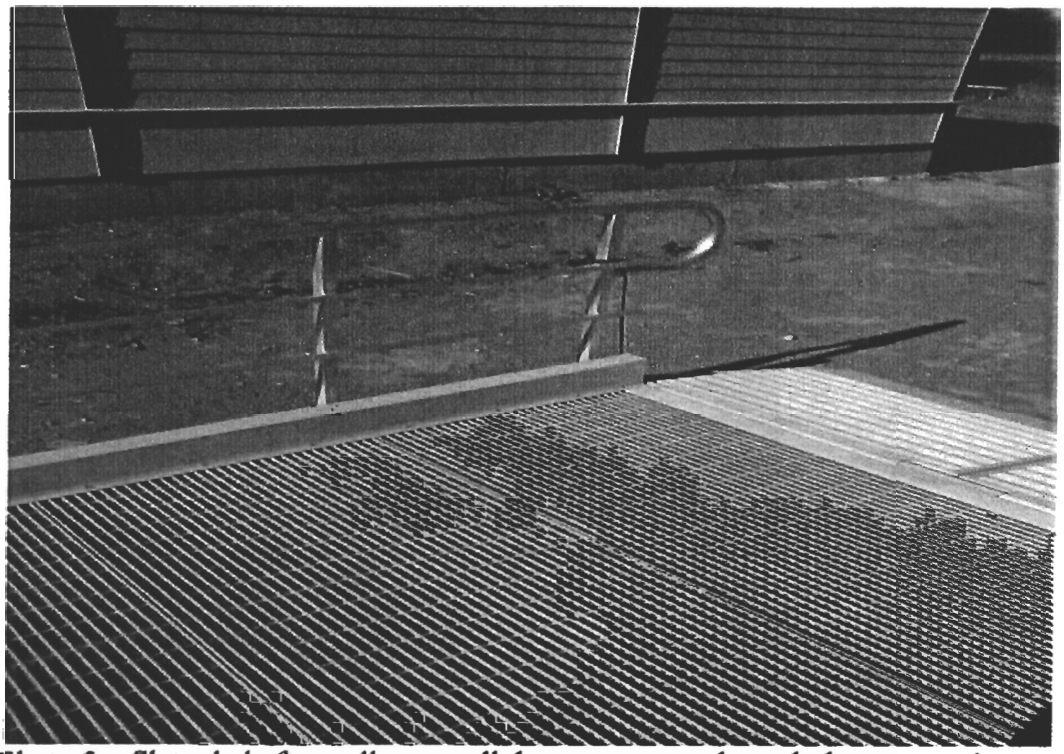


Photo 2 – Slotted platform allows sunlight to penetrate through the water column as to not impact eelgrass beds below.

EELGRASS REPORT
FOR THE
HUMBOLDT BAY ROWING ASSOCIATION
NON-SEASONAL DOCK AND GANGWAY
EUREKA, CA

I. EXECUTIVE SUMMARY

Winzler & Kelly performed an eelgrass survey to determine the extent and density of eelgrass (*Zostera marina*) in areas where the Humboldt Bay Rowing Association (HBRA) proposes to convert the use of an existing floating dock and gangway from temporary/seasonal to non-seasonal/year-round structures. This project is located at 1535 Waterfront Drive in the City of Eureka, California (Figure 1, Appendix A). No additional structures or improvements are proposed, but the existing structures would simply remain in place throughout the year and would not be subject to seasonal removal. The HBRA is a membership-based, non-profit organization dedicated to promoting the sport of rowing and boating safety for community members of all ages and abilities.

This eelgrass report, which incorporates a detailed 2010 survey and additional reconnaissance-level 2009 eelgrass survey data, will be used to evaluate the areal extent of adverse impacts to the eelgrass that occurred as a result of the shading from the HBRA gangway. This report also provides information on suitable on-site eelgrass mitigation areas which will guide the proposed compensatory eelgrass revegetation program. The report additionally establishes a baseline eelgrass density within the survey area which will guide mitigation planting density requirements.

II. PROJECT BACKGROUND

A. Project Description

The HBRA is seeking regulatory approval to convert the use of the existing floating dock and gangway from temporary/seasonal to non-seasonal/year-round structures. No additional structures or improvements are proposed, but the existing structures would simply remain in place throughout the year and would not be subject to seasonal removal. Structures would remain in place until the HBRA (as lessee) or the City of Eureka (as lessor) terminates the lease of the site. Upon such termination, the HBRA will be required to remove all portions of the floating dock and gangway from Humboldt Bay, pursuant to permit conditions.

The HBRA project was originally constructed within the vicinity of occupied eelgrass (*Zostera marina*) habitat. Although no eelgrass mapping was conducted, the 2002 Initial Study for temporary/seasonal installation of the dock and gangway included eelgrass photos and described a "narrow band of eelgrass that parallels the shore." The placement of structures that shade eelgrass is known to cause adverse impacts. The HBRA gangway was, therefore, required to be constructed of grating material to allow filtration of light to the eelgrass beds below and was to be removed during the peak growing season. Currently, the gangway portion of the HBRA

facility crosses over a disrupted band of eelgrass that parallels the shoreline. The gangway shading, therefore, appears to have had an adverse impact on the underlying eelgrass.

B. Project Location

The HBRA facility is located within and adjacent to Humboldt Bay at 1535 Waterfront Drive in Eureka, CA; APN 002-241-013, -006 (Figure 1, Appendix A). The project is located within split local/appeal and primary state Coastal Zone jurisdiction. The seaward portion of the project is within COE Section 10 jurisdiction.

The landward portion of the site has areas of compacted gravel, historic mill building foundations, and maintained field. The HBRA boathouse is the only structure on the site. The existing HBRA gangway extends from the rip rapped shore approximately 50 feet into Humboldt Bay to an approximately 100 foot long floating dock. The narrow band of eelgrass runs parallel to and midway between the top of bank of the shore and the floating dock

III. METHODS

Eelgrass mapping was conducted pursuant to the National Marine Fisheries Service (NMFS) Southern California Eelgrass Mitigation Policy (1991). Reconnaissance level fieldwork and measurement-based mapping was conducted in January of 2009. The 2010 fieldwork to evaluate the distribution and density of eelgrass at the project site was conducted on October 6th, 2010, starting at 5:42 pm during a -0.02 foot tide. Eelgrass beds in the project area were mapped using a Trimble Global Positioning System (GPS) (sub-meter accuracy) data collection unit with Arcmap software.

Distribution
The 2010 eelgrass distribution was evaluated and mapped in areas landward of the floating dock using the Trimble GPS. Mapped areas included occupied eelgrass beds, unoccupied potential eelgrass habitat, and shaded eelgrass impact area under the gangway.

Density
Four one meter square (10.76 ft^2) quadrats were placed within occupied eelgrass habitat to sample the existing eelgrass density. Turions (shoots) were counted in each of the quadrats at low tide.

IV. RESULTS

A disrupted narrow band of native eelgrass occurs between the shoreline and the floating HBRA dock, adjacent to the toe-of-slope of the rip rap shore armoring. In 2009 and 2010 this band of eelgrass occurred on both sides of the gangway but was found to be absent under the gangway.

Within the 2010 survey area there is a total of approximately 510 ft^2 of occupied eelgrass habitat and approximately 309 ft^2 of unoccupied eelgrass habitat. The unoccupied habitat includes an approximately 156 ft^2 area under the gangway (shaded impact area) and two other unoccupied

areas totaling approximately 200 ft^2 which are not shaded by the gangway and appear to be natural voids in suitable eelgrass habitat. (Appendix A - Figure 2).

The average 2010 turion density within occupied eelgrass habitat was approximately 1.56 turions/ft^2. Sampled densities within each quadrat were: 1.39 turions/ft^2 (quadrat 1); 1.95 turions/ft^2 (quadrat 2); 0.93 turions/ft^2 (quadrat 3); and 1.95 turions/ft^2 (quadrat 4).

In January 2009, a reconnaissance-level eelgrass survey found a similar pattern of occupied habitat, but the approximate mean density was only 0.37 turions/ft^2. This variation in density was likely due to seasonal variation.

V. CONCLUSION

The placement of the HBRA gangway has likely caused shade-related adverse impacts to eelgrass beds. Prior to the construction of the HBRA dock and gangway, the 2002 Initial Study for the proposed temporary/seasonal installation of the structures described a "narrow band of eelgrass that parallels the shore." Because eelgrass surveys were not conducted at the site in 2002 and photographic documentation is not sufficient to determine extent of eelgrass coverage, eelgrass is assumed to have been present under the gangway within the "narrow band" prior to placement of the gangway.

Although the gangway was constructed of grating which allows some light to penetrate to the water below, there is now a gap in eelgrass beds below the gangway where shading has occured. This gap was measured to be approximately 156 ft^2 in October 2010, near the end of the growing season. The gangway shading impact on the eelgrass was likely exacerbated by the fact that, contrary to the 2002 conditions of project approval, the dock and gangway remained in place throughout the year from 2003 until the present. This allowed the shading to occur through the peak of the growing season, when, according to permit conditions, the structure should have been removed.

NMFS Southern California Eelgrass Mitigation Policy requires mitigation of impacts to eelgrass beds at a ratio of 1.2:1. The 156 ft^2 impact would, therefore, require approximately 188 ft^2 of mitigation to be completed pursuant to NMFS protocol for eelgrass mitigation. The 2010 eelgrass survey identified two regions of suitable, but unoccupied eelgrass habitat in immediate vicinity of the HBRA facility (Appendix A - Figure 2). These areas total approximately 200 ft^2 and appear to have favorable conditions for completing on-site eelgrass mitigation under NMFS protocol.

The average eelgrass turion density within undisturbed portions of the "narrow eelgrass band" in 2010 was determined to be approximately 1.56 turions/ft^2. This density appears to represent a healthy eelgrass population density in the immediate vicinity of the project and should be used as a target density for mitigation purposes. An Eelgrass Mitigation and Monitoring Plan will be prepared for the project pursuant to NMFs protocol.

Ref. 11766-08001-11037

REVISED EELGRASS MITIGATION AND MONITORING PLAN FOR HUMBOLDT BAY ROWING ASSOCIATION NON-SEASONAL DOCK AND GANGWAY EUREKA, CA

March 2011

Prepared for:

Jerome Simone
President
HBRA
PO Box 750
Trinidad, CA 95570

EXHIBIT NO. 6
APPLICATION NO.
1-11-004
HUMBOLDT BAY ROWING ASSOCIATION
FINAL REVISED EELGRASS ENHANCEMENT PLAN (1 of 10)

Prepared by:

Winzler & Kelly Consulting Engineers
633 Third Street
Eureka, CA 95501-0417
(707) 443-8326

INTRODUCTION

The Humboldt Bay Rowing Association (HBRA) proposes to convert the use of an existing floating dock and gangway from seasonal to non-seasonal/year-round structures (Appendix A, Figure 1 – Vicinity Map). No additional structures or improvements are proposed, but the existing structures would simply remain in place throughout the year and would not be subject to seasonal removal. The HBRA is a membership-based, non-profit organization dedicated to promoting the sport of rowing and boating safety for community members of all ages and abilities.

The boat dock and gangway were constructed within the vicinity of occupied eelgrass (*Zostera marina*) habitat and the gangway portion of the boating facility likely caused adverse impacts to eelgrass beds. The 2002 Initial Study for temporary/seasonal installation of the dock and gangway described a "narrow band of eelgrass that parallels the shore." The HBRA gangway was, therefore, required to be constructed of grating material to allow filtration of light to the eelgrass beds below and was to be removed during the peak growing season. Currently, the gangway crosses over a disrupted band of eelgrass that parallels the shoreline. The gap in eelgrass beds under the gangway is assumed to be a result of gangway construction although no eelgrass mapping was conducted prior to construction of the gangway and photographs from 2002 are inconclusive as to the exact extent of eelgrass. The gangway shading appears to have had an adverse impact on approximately 156 ft^2 (14.5 m^2) of the underlying eelgrass (see Appendix A – Figure 2 and Eelgrass Report W&K, 2010). This impact was likely exacerbated by the fact that, contrary to the 2002 conditions of project approval, the gangway remained in place throughout the year from 2003 until the present. This allowed the shading to occur through the peak of the growing season, when, according to 2002 permit conditions, the structure should have been removed.

This mitigation plan has been prepared in support of a Section 10 Permit from the U.S. Army Corps of Engineers (COE) and Coastal Development Permits from the City of Eureka and California Coastal Commission. In compensation for the assumed loss of eelgrass beds resulting from gangway shading, the HBRA proposes on-site replanting of eelgrass within suitable on-site unshaded habitat. The plan was prepared pursuant to the National Marine Fisheries Service (NMFS) Southern California Eelgrass Mitigation Policy (1991) with California Department of Fish and Game (DFG) and NMFS recommended adaptations for Humboldt Bay, and will result in a replacement ratio of at least 1.2:1.

PROJECT DESCRIPTION

Location

The HBRA facility is located within and adjacent to Humboldt Bay at 1535 Waterfront Drive in Eureka, CA; APN 002-241-013,-006. The project is located within split local/appeal and primary state Coastal Zone jurisdiction. The seaward portion of the project is within COE Section 10 jurisdiction.

Responsible Parties

The HBRA, as the lessee of the project site and owner of the gangway and dock, is the responsible party for implementation of this mitigation plan.

Proposed Project

The HBRA requests approval to convert the use of the existing floating dock and gangway from seasonal to non-seasonal/year-round structures. No additional structures or improvements are proposed, but the existing structures would simply remain in place throughout the year and would not be subject to seasonal removal. Structures would remain in place until the HBRA (as lessee) or the City of Eureka Redevelopment Agency (as lessor) terminates the lease of the site. Upon such termination, the HBRA will be required to remove all portions of the floating dock and gangway from Humboldt Bay, pursuant to the terms of the lease.

EELGRASS IMPACT

Impact Background

The HBRA project was constructed within the vicinity of occupied eelgrass (*Zostera marina*) habitat, which is Essential Fish Habitat (EFH) for various federally managed fish species. The EFH designation identifies fish habitats that are determined to be rare, especially ecologically important, highly susceptible to human-induced degradation, or are located in an environmentally-stressed area. Eelgrass vegetated areas are recognized as important ecological communities in shallow bays and estuaries because of their multiple biological and physical values. Eelgrass habitat functions as an important structural environment for resident bay and estuarine species, offering both predation refuge and a food source. Eelgrass functions as a nursery area for many commercially and recreational important finfish and shellfish species, including those that are resident within bays and estuaries, as well as oceanic species that enter estuaries to breed or spawn. Eelgrass also provides a unique habitat that supports a high diversity of non-commercially important species whose ecological roles are less well understood.

The 2002 Initial Study for temporary/seasonal installation of the dock and gangway described a "narrow band of eelgrass that parallels the shore." The placement of structures that shade eelgrass is known to cause adverse impacts. The HBRA gangway was, therefore, required to be constructed of grating to allow filtration of light to the eelgrass beds below and was to be removed during the peak growing season. Currently, the gangway portion of the HBRA facility crosses over a disrupted band of eelgrass that parallels the shoreline. The impact area was measured to be approximately 156 ft^2 (14.5 m^2) in October 2010 and would be re-surveyed in July 2011, prior to mitigation implementation.

There is no record of eelgrass vegetation located under the floating dock, where the substrate is likely too deep to support an eelgrass population.

Impact Assessment

Installation of the gangway appears to have caused indirect, long-term impacts related to shading the eelgrass beds below. Because eelgrass surveys were not conducted at the site in 2002 and photographic documentation is not sufficient to determine extent of eelgrass coverage, eelgrass is assumed to have been present under the gangway within the "narrow band" prior to placement of the gangway. Although the gangway was constructed of grating which allows some light to

penetrate to the water below, there is now a gap in eelgrass beds below the gangway where shading has occurred. This gap was measured to be approximately 156 ft^2 (14.5 m^2) in October 2010, near the end of the growing season. The gangway shading impact on the eelgrass was likely exacerbated by the fact that, contrary to the 2002 conditions of project approval, the dock and gangway remained in place throughout the year from 2003 until the present. This allowed the shading to occur through the peak of the growing season, when, according to permit conditions, the structure should have been removed.

The area of impact will be re-surveyed at the lowest daylight tide in July 2011 to establish a final impact area.

MITIGATION

Mitigation Background

This mitigation plan is based on the National Marine Fisheries Service (NMFS) Southern California Eelgrass Mitigation Policy (1991) with adaptations for Humboldt Bay as recommended by DFG and NMFS during development of the plan. The Southern California Policy requires mitigation of impacts to eelgrass beds at a ratio of 1.2:1. The 156 ft^2 (14.5 m^2) impact would, therefore, require approximately 188 ft^2 (17.5 m^2) of mitigation to be completed pursuant to NMFS protocol for eelgrass mitigation. The 2010 eelgrass survey identified two regions of potential suitable, but unoccupied eelgrass habitat in the immediate vicinity of the HBRA facility (see Appendix A - Figure 2, and Eelgrass Report W&K, 2010). These areas total approximately 200 ft^2 (18.6 m^2) and appear to have favorable conditions for completing on-site eelgrass mitigation under NMFS protocol, as discussed below.

Mitigation Re-Survey July 2011

The impact area and proposed mitigation sites shall be re-surveyed at the lowest daylight tide in July 2011, to confirm impact area, target mitigation density, and to ensure that the mitigation site is adequate in size. The survey shall be conducted pursuant to DFG recommendations and shall include six to nine 0.1 m^2 quadrats. The survey shall use a randomized sample design to place quadrats at the project site. The results of the pre-mitigation survey shall be approved verbally by the DFG and NMFS prior to issuance of the DFG letter of permission (LOP) and prior to implementation of this mitigation plan. Written results of the survey will be presented in the post-mitigation monitoring report (see Mitigation Monitoring, below).

Mitigation Map

See Appendix A Figure 2 – Eelgrass Location Map. Protocol for mapping follows NMFS format. A pre-mitigation map will be produced during the pre-mitigation survey and submitted to DFG, NMFS, the City of Eureka, and the Coastal Commission with the results of the post-implementation survey.

Mitigation Site

The 2010 eelgrass survey identified two regions of suitable, but unoccupied eelgrass habitat in

immediate vicinity of the HBRA facility (Appendix A - Figure 2). These areas total approximately 200 ft^2 (18.6 m^2) and appear to have favorable conditions for completing on-site eelgrass mitigation under NMFS protocol. The proposed mitigation sites shall be re-surveyed at the lowest daylight tide in July 2011, to confirm the target density and to ensure that the mitigation site is adequate in size.

Mitigation Size

As discussed above, the proposed mitigation sites shall be re-surveyed at the lowest daylight tide in July 2011, to ensure that the mitigation site is adequate in size.

Each square foot of adversely impacted eelgrass bed will be replaced with at least 1.2 square feet of transplanted eelgrass in a suitable habitat. Based on 2010 survey data, the mapped impact area is approximately 156 ft^2 (14.5 m^2) and the proposed mitigation area would be approximately 188 ft^2(17.5 m^2). The area to be transplanted will be larger than the required final mitigation target size to allow for a small degree of eelgrass mortality to increase the likelihood of achieving the final mitigation ratio of 1.2:1.

Mitigation Technique

Harvest from Donor Site: The proposed donor site is the adjacent occupied eelgrass beds identified during the Eelgrass Report, or other suitable site approved by DFG and NMFS prior to harvest. Techniques for the construction and planting of the eelgrass mitigation site shall be consistent with the best available technology at the time of the project. Written permission to harvest donor plants must be obtained from DFG. Harvest will be completed by first removing substrate from around the rhizome, then uprooting the rhizome with roots and blades attached. This method creates minimum disturbance to surrounding eelgrass and substrate. No more than 10 percent of an existing bed shall be harvested for transplanting purposes. Plants harvested shall be taken in a manner to thin an existing bed without leaving any noticeable bare areas.

Transplanting: Transplanting will be conducted pursuant to the terms of the DFG LOP to be completed prior to conducting any work in the donor or mitigation site. The following basic methods developed for Southern California eelgrass mitigation may be modified by the DFG LOP or, with written or oral notice to the HBRA, may be modified at any time by DFG or NMFS during mitigation implementation:

Not more than two days prior to transplanting, eelgrass will be harvested from the donor site using the bare-root method. The bare-root material will be processed into planting units of four shoots interlaced and attached directly to a degradable six-inch landscape anchor using degradable fasteners. Following anchor attachment, the leaves of each planting unit will be cut to a length of approximately 30 cm to facilitate handling and planting (Merkel, 2004). Planting units will be placed in seawater coolers following preparation. Planting units will be installed by hand excavating a hole approximately equal to the size of the unit, and inserting the planting unit into the hole so that the rhizomes are at a depth of approximately 2 inches below the substrate. The hole will be back-filled with substrate. Leaf blades will be pulled free of the substrate and stood upright from the bottom.

Spacing of transplant units shall duplicate the spacing of shoots within adjacent beds that were not impacted by shading. The average eelgrass turion density within undisturbed portions of the "narrow eelgrass band" in 2010 was determined to be approximately 1.56 turions/ft^2 (16.79 turions/m^2). The adjacent eelgrass beds shall be re-surveyed at the lowest daylight tide in July

2011, to re-establish the target density and to ensure that the mitigation site is adequate in size. Density and mitigation area results from the July 2011 survey shall be approved by the DFG and NMFS prior to mitigation implementation.

Transplanting activities shall be conducted during the eelgrass growing season (May through September), after DFG/NMFS approval of July 2011 survey results, final mitigation parameters are approved by DFG and NMFS, and the DFG LOP is issued.

Mitigation Timing

Mitigation will begin upon receipt of state, federal, and local permits and authorizations (including DFG LOP for eelgrass harvest) for the project. All work shall be conducted within the eelgrass growing season from May through September.

Mitigation Monitoring

Monitoring the success of eelgrass mitigation shall be required for a period of five years from the time of transplanting. Monitoring activities shall determine the area of eelgrass and density of plants at the transplant site using six to nine 0.1 square meter quadrats. The monitoring survey shall use a randomized sample design to place quadrats at the project site. Monitoring will be conducted immediately after transplanting and again at the end of the growing season (preferably in September). Yearly monitoring will then be conducted during the anniversary month of transplanting from 2012-2016.

Additional monitoring beyond the fifth year may be required if the density or distribution of the mitigation site does not meet success criteria. To account for any natural changes or fluctuations in bed width or density, monitoring of the adjacent undisturbed eelgrass beds as control area will occur as part of each monitoring event. Monitoring reports shall be provided to the resource agencies within 30 days after the completion of each required monitoring period and shall include the summary sheet (Appendix B) included in NMFS Southern California Eelgrass Mitigation Policy.

Mitigation Success

Criteria for determination of transplant success shall be based upon the minimum required mitigation area and target density (to be established as noted in Mitigation Size and Mitigation Technique, above), as follows:

a. The mitigation site shall achieve a minimum of 70 percent of the minimum area of eelgrass and 30 percent of target density in the initial year.
b. The mitigation site shall achieve a minimum of 85 percent of the minimum area of eelgrass and 70 percent of target density in the second year.
c. The mitigation site shall achieve 100 percent of the minimum area of eelgrass and 85 percent of target density in the third, fourth and fifth years.

Should the required eelgrass transplant fail to meet any of the established criteria, then a Supplementary Transplant Area (STA) shall be constructed and planted pursuant to the recommendations of DFG and NMFS.

NOTIFICATION

Monitoring Reports

Monitoring reports completed pursuant to Mitigation Monitoring, above, shall be provided to the Distribution List within 30 days after the completion of each required monitoring period and shall include the NMFS Southern California Eelgrass Mitigation Policy Monitoring and Compliance Reporting Summary sheet (Appendix B). The initial monitoring report shall include the results of the pre-mitigation survey, including: target mitigation density, impact area, size of mitigation receiver sites, density sample results, and an updated map. The first monitoring report will also include: a detailed description of methods were used for transplanting, photographs of the site at low tide with eelgrass exposed prior to transplanting, similar photographs of the site once transplanting is completed (if possible at the end of the day on the day of transplanting). Subsequent annual monitoring reports shall also contain photographs of the mitigation site at low tide with eelgrass exposed.

Notification of Completion

If Mitigation Success criteria have been met upon completion of the final specified monitoring event, Notice of Completion shall be forwarded along with the final Monitoring Report to the Distribution List below and the Mitigation Plan shall be complete. Should the required eelgrass transplant fail to meet any of the established criteria, then a Supplementary Transplant Area (STA) shall be constructed and planted pursuant requirements of DFG and NMFS. Monitoring, success, reporting, and completion requirements for any STA will generally follow the same requirements as the original mitigation effort.

Distribution List

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P.O. Box 4863
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Melissa Kraemer
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California Coastal Commission
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David Hull
Humboldt Bay Harbor, Recreation and Conservation District

P.O. Box 1030
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Rebecca Garwood
California Department of Fish and Game
619 Second Street
Eureka, CA 95501

REFERENCES

Fonseca, M.S., W.J. Kenworthy, and G.W. Thayer. 1998. Guidelines for the conservation and restoration of seagrass in the United States and adjacent waters. NOAA COP/Decision Analysis Series 12. 222 pp.

Merkel, K.W. 2004. Experimental Eelgrass Transplant Program. Investigations for On-site Eelgrass Mitigation. Final Report to California Department of Transportation.

National Marine Fisheries Service (NMFS). 1991 Southern California Eelgrass Mitigation Policy.

Winzler & Kelly, 2010. Eelgrass Survey. November, 2010.

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Appendix A
Figures

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Appendix B
NMFS Reporting Form