CALIFORNIA COASTAL COMMISSION
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W16c

MEMORANDUM

Date: April 10, 2012

To: Commissioners and Interested Parties

Click here to go to the original staff report.

From: Charles Lester, Executive Director
Robert S. Merrill, District Manager – North Coast District

Subject: **Addendum to Commission Meeting for Wednesday, April 11, 2012 North Coast District Item W16c, Application No. 1-12-004 (Crescent City Harbor District)**

This addendum presents certain revisions and additions to the staff recommendation for approval of the project with conditions mailed on March 30, 2012, including: (I) modifications to Special Condition No. 2, "Eelgrass Mitigation and Monitoring Plan, and (II) revisions and additions to the findings that present findings that staff was unable to complete prior to mailing of the staff report. Staff continues to recommend approval of the permit with conditions as recommended in the March 30, 2012 staff report.

I. <u>Modifications to Special Conditions</u>.

Text to be deleted is shown in ~~**bold strikethrough**~~, text to be added appears in **<u>bold double-underline.</u>**

- *Special Condition No. 2 on pages 5-7 of the staff recommendation shall be modified as follows:*

2. <u>Eelgrass Mitigation and Monitoring Plan</u>

(A) **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT NO. 1-12-004**, the applicant shall submit, for the review and approval of the Executive Director, a**<u>n</u>** ~~**final**~~ eelgrass mitigation and monitoring plan. The plan shall be prepared by a qualified botanist or ecologist with experience in surveying and monitoring eelgrass and preparing and implementing eelgrass mitigation

plans. The plan shall address all phases of development and construction activities authorized under this coastal development permit and shall be consistent with the requirements of all conditions of this permit. The plan, at a minimum, shall provide for the following:

1. A pre-construction eelgrass survey of the entire Outer Boat Basin and areas within 50 feet **of** any ~~**area**~~ shoreline embankment area where rock slope protection repairs are proposed, including near the Administration Dock site, shall be completed during the months of May through August. The pre-construction survey shall be completed prior to the beginning of construction and shall be valid **for 60 days or** until the next period of active growth **if construction takes place after the end of the active growth period**. The pre-construction survey shall be in complete compliance with all survey recommendations of Appendix B, "Recommendations Concerning Surveys for Assessing Impacts to Eelgrass,"of the Draft California Eelgrass Mitigation Policy prepared by the National Marine Fisheries Service, Southwest Region dated December 7, 2011.

2. A post-construction eelgrass survey and assessment of impacts shall be completed ~~**in the same month as the pre-construction survey during the next growing season immediately following the completion of the project**~~ **within the first 30 days of completion of construction, or within the first 30 days of the next active growth period following completion of construction that occurs outside of the active growth period**. The post-construction survey shall document adverse impacts to eelgrass ~~**and any changes in density and extent of vegetative cover**~~. The post-construction survey and impact assessment shall be in complete compliance with all recommendations of Appendix C, "Recommended Measures for Assessing Impacts to Eelgrass," of the Draft California Eelgrass Mitigation Policy prepared by the National Marine Fisheries Service, Southwest Region dated December 7, 2011.

3. Adverse impacts to eelgrass shall be measured as the difference between the pre-construction and post-construction estimates of eelgrass cover and density. ~~**The extent of vegetated cover is defined as that area where eelgrass is present and where gaps in coverage are less than one meter between individual turion clusters. Density is defined as the average number of turions per unit area.**~~

4. Density and extent of vegetative cover shall be estimated at ~~**control**~~ **reference** areas during pre-construction surveys, post-construction surveys, and during annual monitoring. Changes in density and extent of vegetated cover of the control areas shall be used to account for natural variability. Selection of an appropriate control site shall be performed in

consultation with the Department of Fish and Game and NOAA-Fisheries staff.

~~5~~**B**. Impacts to eelgrass shall be avoided to the maximum extent feasible. If post-construction survey results demonstrate to the satisfaction of the Executive Director that eelgrass densities have not decreased at all and there has been no loss of extent of vegetated cover, then no further monitoring or mitigation is required. If post-construction eelgrass surveys indicate any decrease in eelgrass density or cover, then a~~n~~ **final** eelgrass mitigation and monitoring plan shall be prepared and submitted for the review and approval of the Commission **within three months of completion of the post-construction eelgrass survey**. The mitigation methods, the location of the mitigation sites, and the monitoring plan shall be in ~~complete~~ compliance with ~~all~~ **the** recommendations ~~of~~ **in** Appendix D, "Recommended Measures for Eelgrass Impact Mitigation," of the Draft California Eelgrass Mitigation Policy prepared by the National Marine Fisheries Service, Southwest Region dated December 7, 2011 and shall provide for the following:

~~(a)~~**1** The plans shall provide for a**n initial** transplant area to impact area ratio of 4.82 to 1.

~~(a)~~**2** Within three years of completion of the transplanting, the eelgrass mitigation site shall have ~~an extent of vegetative cover equal to at least 1.2 times the impacted area and have an average density equal to the pre-construction average density~~ **a minimum of 40% of the coverage of eelgrass and 20% of the density of the reference site over an area not less than 1.2 times the area of impact.**.

~~(b)~~**3** The plan shall provide for mitigation site identification, planting methods, monitoring methods, and schedule. Specific success and monitoring criteria are as follows:

~~i.~~**(a)** A minimum of ~~70 percent aerial coverage and 30 percent density in the mitigation area after the first year~~**40% of the coverage of eelgrass and 20% of the density of the reference site over an area not less than 1.2 times the area of impact in the first year**;

~~ii.~~**(b)** A minimum of 85~~ percent aerial coverage and 70 percent density in the mitigation area after the second year~~ **% of the coverage of eelgrass and 70% of the density of the reference site over an area not less than 1.2 times the area of impact in the second year**;

~~iii.~~**(c)** A minimum of 100~~ percent aerial coverage and 85 percent density in the mitigation area after the third year~~**% of the coverage of eelgrass and 85% of the density of the reference**

site over an area not less than 1.2 times the area of impact in years three through five.

~~(c)~~4. Monitoring methods shall include mapping and random sampling of the eelgrass mitigation areas using a sampling size adequate to obtain representative **~~qualitative~~** data for the entire project site to determine **bed size,** percent cover and shoot density **~~as defined in subsection (4) above~~**.

~~(d)~~5. A detailed monitoring schedule shall be provided that indicates when each of the required monitoring events will be completed. Monitoring reports shall be provided to the Executive Director, DFG, and NOAA-Fisheries within 30 days of completion of each required monitoring period;

~~(e)~~6. If the impacted eelgrass mitigation areas have not met the recovery standard in subsection (b) above in **~~three~~ five** years, the permittee shall submit an application for an amendment to Coastal Development Permit No. 1-12-004 proposing additional mitigation to ensure all performance criteria are satisfied consistent with all terms and conditions of this permit.

~~(B)~~(C) The permittee shall undertake development in accordance with the approved **~~final~~** eelgrass mitigation and monitoring plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

REASON FOR CHANGE: The special condition has been revised after review by the Commission's Staff Ecologist to make the provisions of the condition consistent with National Marine Fisheries Service Draft California Eelgrass Mitigation Policy. Other changes involve minor changes to the format of the condition.

II. Revisions and Additions to Findings

- *Modify the text of the "Loss of Bottom Habitat," subsection of the "Feasible Mitigation Measures" Section of Finding E, "Protection of Coastal Waters and Water Quality," beginning on page 27 as follows:*

Text to be deleted is shown in **~~bold strikethrough~~**, text to be added appears in **bold double-underline.**

Loss of Harbor Bottom Habitat

The applicant is proposing to buttress the rock slope protection along the shoreline embankment adjacent to the Administration Dock. The expanded rock slope protection would be performed on the silty-sandy substrate that underlies the Crescent City Harbor. Such harbor bottom materials typically support a variety of worms, mollusks, and other benthic organisms. **Eelgrass has also recently been discovered on the substrate of the harbor in this location.** ~~**However, this displacement is not a significant adverse impact to the habitat**~~.

The ~~**primary adverse effect is the**~~ displacement of the soft bottom substrate~~,~~ result~~s~~**ing** in a loss of habitat area for invertebrates that dwell in or on the substrate within the intertidal area. On the other hand, the expanded rock slope protection provide hard intertidal substrate habitat that is beneficial for other kinds of sessile marine invertebrates such as barnacles and mussels. In past studies of the Crescent City Harbor conducted by Applied Environmental Technologies, Inc. in 2006 and URS Corporation in 2007 for the preceding maintenance dredging and breakwater repair projects, respectively, the harbor's consultants characterized the harbor waters, including in the sandy areas within the inner boat basin project area, to be very harsh intertidal environments subject to intensive wave action, wide temperature range fluctuations, and periodic tidal exposure at their periphery. As a result, larger areas within the inner harbor are effectively denuded of vegetative cover, and exhibit a pattern of decreasing density and diversity of marine epifauna corresponding to locations furthest into the harbor's dock and wharf recesses. In addition, the bottom materials within the boat basin were found to have a relatively high wood fragment content compared to similar areas further out into the harbor. These studies also reported that while the area of soft bottom habitat in the harbor is extensive, areas of hard intertidal substrate are relatively limited to the perimeter shoreline revetments and remnants of the former sea stack known as Whaler's Island.

Therefore, the Commission finds that no additional mitigation for the loss of bottom habitat **(other than eelgrass as discussed below)** is necessary for the buttressing of the rock slope protection along the shoreline embankment in the vicinity of the Administration Dock.

The Department of Fish & Game submitted comments on the permit application indicating that the Department is aware that native eelgrass, (Zostera marina), occurs inside the Crescent City harbor in several locations, including near the Administrative Dock. 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 from construction and indirect shading from over-water structures (such as piers and gangways).

The applicant performed a preliminary eelgrass survey of the proposed rock slope protection repair areas and confirmed the presence of eelgrass (See Exhibit No. 6). Two eelgrass beds were located during the survey and are shown in the maps attached to Exhibit No. 6. One of the beds is located southwest of the entrance to the public boat launch area near the southeastern portion of the Outer Boat Basin and is approximately 289 square meters in size. The other eelgrass bed is located in the vicinity of the Administrative Dock neat the entrance to the inner boat basin and is approximately 241 square meters in size. The survey report indicates that the eelgrass bed in the vicinity of the Administrative Dock could be adversely impacted by the proposed addition of more rock slope protection along the shoreline embankment. The survey report indicates that portion of the other bed near the public boat launch facility could also be affected by project construction. The preliminary survey did not examine other portions of the Outer Boat Basin outside of the proposed rock slope protection areas and recommends that a more comprehensive survey be performed during the eelgrass growing season in May.

To ensure that the applicant obtains an accurate inventory of eelgrass present at the site prior to construction and to minimize and mitigate any adverse impacts to eelgrass, staff recommends Special Condition No. 2. The special conditions requires the applicant to submit an eelgrass mitigation and monitoring plan for the review and approval of the Executive Director that includes monitoring provisions requiring: (1) that impacts to eelgrass shall be avoided to the maximum extent feasible; (2) that the applicant conduct both pre- and post-construction surveys to be completed during the active eelgrass growing season prior to the beginning of construction; and (3) if any net loss of eelgrass results from the project, an eelgrass mitigation and monitoring plan shall be prepared and submitted for the review and approval of the Commission. The mitigation methods, the location of the mitigation sites, and the monitoring plan are required to be in compliance with the recommendations of the Draft California Eelgrass Mitigation Policy prepared by the National Marine Fisheries Service, Southwest Region dated December 7, 2011.

Conclusion

The Commission finds that as conditioned, all feasible mitigation measures have been provided to minimize adverse environmental effects consistent with Section 30233(a) of the Coastal Act. In addition, The Commission finds that as conditioned to require: (1) adherence to various construction responsibilities to protect coastal resources; (2) submittal of an eelgrass mitigation and monitoring plan, and (3) submittal of a final sedimentation and runoff control plan, hazardous materials management plan, and debris disposal plan; the proposed development is consistent with Coastal Act Sections 30230, 30231, and 30232.

- *Add the following "Geologic Hazards" finding as new Finding J on page 32 prior to existing Finding J, "California Environmental Quality Act (CEQA)," which will be renumbered as Finding K.*

The entire finding is new and is shown in plain text for reading clarity.

D. Geologic Hazards

Coastal Act Section 30253 states in applicable part:

> *New development shall do all of the following:*
>
> *(a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
>
> *(b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

Coastal Act Section 30253 requires in applicable part that new development minimize risks to life and property in areas of high geologic, flood, and fire hazard and neither create nor contribute significantly to erosion or geologic instability.

The existing rock slope shoreline protective device is located in an area of high geologic and flood hazard from waves and tidal action, and the proposed rock slope protection rehabilitation work is necessary to repair previous damage from these hazards and strengthen the rock slope protection against further damage from such hazards. To assure the structural integrity and stability of the repaired rock slope shoreline protection, the repairs have been engineered. The quarry rock to be used in the repairs and the design meet appropriate engineering specifications. To ensure that the repairs conform to the plans that have been determined to be acceptable, the Commission attaches Special Condition No. 1. This condition requires that the repairs to the shoreline protective device be performed consistent with the submitted plans and that no changes to the plan shall occur without a Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

Due to the uncertain nature and inherent risk associated with the construction of improvements in high energy coastal environments, the Commission attaches Special Condition No. 8. Special Condition No. 8 requires the applicant to assume the risks of extraordinary erosion and flood hazards of the outer boat basin area and waive any claim of liability on the part of the Commission. Given that the applicant has chosen to implement the project despite these risks, the applicant must assume the risks. In this way, the applicant is notified that the Commission is not liable for damage as a result of approving the permit for the development. The condition also requires the applicant to indemnify the Commission in the event that third parties bring an action against the Commission as a result of the failure of the development to withstand hazards.

The Commission finds that as conditioned, the project will minimize risks to life and property from geologic and flood hazards, will assure stability and structural integrity, and will neither create nor contribute significantly to erosion, geologic instability, or erosion of the site or surrounding area consistent with the requirements of Section 30253 of the Coastal Act.

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W16c

Date Filed:	February 2, 2012
49th Day:	March 22, 2012
180th Day:	July 31, 2012
Staff:	Robert S. Merrill
Staff Report:	March 30, 2012
Hearing Date:	April 11, 2012
Commission Action:	

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.:	**1-12-04**
APPLICANT:	**Crescent City Harbor District**
AGENT OF PROCESS:	Stover Engineering
PROJECT DESCRIPTION:	Restore the Outer Boat Basin to its capacity and function prior to damage from March 11, 2011 tsunami by (a) dredging approximately 251,160 cubic yards of material from the basin and (b) excavating 4,200 cubic yards of damaged rock slope revetment materials and placing 3,731 cubic yards of new rock to repair the existing shoreline revetment at five locations along the interior embankments of the basin
PROJECT LOCATION:	At various locations within the Crescent City Harbor District's Outer Boat Basin Marina, 101 Citizens Dock Road, Crescent City (Del Norte County). APN 117-020-16
AGENCY APPROVALS RECEIVED:	(1) Regional Water Quality Control Board FCWA §401 *Water Quality Certification.*
OTHER APPROVALS REQUIRED:	(1) U.S. Army Corps of Engineers Federal Clean Water Act (FCWA) *Section 404 Individual Permit* or *Nationwide Permit(s)*; (2) U.S. Army Corps of Engineers Rivers and Harbors Act §10 *Dredging*

and Disposal General Permit (3) NOAA Fisheries Endangered Species Act and Essential Fish Habitat Consultation *Letter of Concurrence* or *Biological Opinion*;

SUBSTANTIVE FILE DOCUMENTS: (1) County of Del Norte LCP.

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends approval with conditions of the coastal development permit application for the proposed project on the basis that, as conditioned by the Commission, the project is consistent with the Chapter 3 policies of the Coastal Act.

The proposed development involves authorization to repair damage to facilities at Crescent City Harbor District's outer boat basin resulting from the March 2011 tsunami generated by the 9.0 Tohuku Earthquake in Japan to restore the outer boat basin to its pre-March 2011 capacity and function. The elements of the project include dredging approximately 251,160 cubic yards of shoaled sediments from the bottom of the Outer Boat Basin to restore adequate depths for navigation and placing 3,731 cubic yards of new rock to repair the existing shoreline revetment at five locations along the interior embankments of the basin and along the shoreline embankment adjacent to the Administrative dock near the entrance to the Inner Boat Basin.

As the applicant proposes to undertake the improvements to the outer boat basin to provide essential protection for the safety and longevity of commercial fishing and recreational boat mooring, loading and launching operations, the staff recommends that the Commission finds that the proposed fill for the rock slope protection improvements is permissible under Section 30233(a) subsection (1) for new or expanded port facilities, including commercial fishing facilities, and subsection (3) for new or expanded boating facilities in open coastal waters, other than wetlands, including streams, estuaries, and lakes, that provide public access and recreational opportunities. Furthermore, as the proposed dredging is limited to areas that have been previously dredged to the same elevation for vessel berthing and mooring, the staff recommends that the Commission finds that the proposed dredging is consistent with Section 30233(2) allows dredging for maintaining existing, or restoring previously dredged depths in existing vessel berthing and mooring areas, and launching ramps.

A principal issues raised by the proposed project are impacts to eelgrass beds associated with the dredging and repairs and buttressing of the rock slope protection along the shoreline embankments. To ensure that the applicant obtains an accurate inventory of eelgrass present at the site prior to construction and to minimize any adverse impacts to eelgrass, staff recommends Special Condition No. 2. The special conditions requires the

applicant to submit an eelgrass mitigation and monitoring plan for the review and approval of the Executive Director that includes monitoring provisions requiring: (1) Impacts to eelgrass shall be avoided to the maximum extent feasible; (2) that the applicant conduct both pre- and post-construction surveys to be completed during the active eelgrass growing season prior to the beginning of construction; and (3) if any net loss of eelgrass results from the project, an eelgrass mitigation and monitoring plan shall be prepared and submitted for the review and approval of the Commission. The mitigation methods, the location of the mitigation sites, and the monitoring plan shall be in compliance with the recommendations of the Draft California Eelgrass Mitigation Policy prepared by the National Marine Fisheries Service, Southwest Region dated December 7, 2011.

Staff is recommending a number of other special conditions to minimize other potential impacts of the development, including conditions designed to minimize impacts to water quality by requiring submittal of an erosion and sedimentation control plan, a final debris disposal plan, and adherence to construction responsibilties designed to minimize the release of debris and pollutants in the waters of the harbor.

As conditioned, staff believes the proposed project is consistent with the Chapter 3 policies of the Coastal Act and recommends approval of the project with the above-described special conditions.

The Motion to adopt the Staff Recommendation of Approval with Conditions is found below on page 4.

STAFF NOTES:

1. Jurisdiction and Standard of Review

The site of the proposed project is within and adjacent to the semi-confined waters of the Crescent City Harbor, an embayment of the Pacific Ocean. The project is located in areas subject to the public trust within the Coastal Commission's area of original or retained jurisdiction. Therefore, the standard of review that the Commission must apply to the development is the Chapter 3 policies of the Coastal Act.

2. Addendum

This staff report does not contain the complete findings for approval of the project. Staff was unable to complete the findings prior to the mailing of the staff report. However, staff will present the remaining portion of the recommended findings for approval of the project as part of the addendum at the Commission meeting. The findings contained in both this staff report and its addendum will reflect the basis for approval with conditions.

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. 1-12-004 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 feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment.

II. STANDARD CONDITIONS: See Appendix A.

III. SPECIAL CONDITIONS:

1. Final Design and Construction Plans

A. **PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. 1-12-004**, the applicant shall submit to the Executive Director for review and written approval final design and construction plans for the project which are consistent with: (1) the approved project narrative and preliminary site plans titled "Crescent City Harbor District, Administration Dock and Whaler Island RSP Repairs and Outer Boat Basin Dredging," dated January 25, 2012, as prepared by Stover Engineering Civil Engineers and Consultants, attached as Exhibit No. 4;

(2) all impact minimizing mitigation measures as may be required by NOAA Fisheries in any letter of concurrence, biological opinion, or other review documentation issued after completion of consultation with the U.S. Army Corps of Engineers on effects of the project on marine species and essential fish habitat; and (3) all special conditions of Coastal Development Permit No. 1-12-004.

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

2. <u>Eeelgrass Mitigation and Monitoring Plan</u>

(A) **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT NO. 1-12-004**, the applicant shall submit, for the review and approval of the Executive Director, a final eelgrass mitigation and monitoring plan. The plan shall be prepared by a qualified botanist or ecologist with experience in surveying and monitoring eelgrass and preparing and implementing eelgrass mitigation plans. The plan shall address all phases of development and construction activities authorized under this coastal development permit and shall be consistent with the requirements of all conditions of this permit. The plan, at a minimum, shall provide for the following:

1. A pre-construction eelgrass survey of the entire Outer Boat Basin and areas within 50 feet any area shoreline embankment area where rock slope protection repairs are proposed, including near the Administration Dock site, shall be completed during the months of May through August. The pre-construction survey shall be completed prior to the beginning of construction and shall be valid until the next period of active growth. The pre-construction survey shall be in complete compliance with all survey recommendations of Appendix B, "Recommendations Concerning Surveys for Assessing Impacts to Eelgrass,"of the Draft California Eelgrass Mitigation Policy prepared by the National Marine Fisheries Service, Southwest Region dated December 7, 2011.

2. A post-construction eelgrass survey and assessment of impacts shall be completed in the same month as the pre-construction survey during the next growing season immediately following the completion of the project. The post-construction survey shall document adverse impacts to eelgrass and any changes in density and extent of vegetative cover. The post-construction survey and impact assessment shall be in complete compliance with all recommendations of Appendix C, "Recommended Measures for Assessing Impacts to Eelgrass," of the Draft California

Eelgrass Mitigation Policy prepared by the National Marine Fisheries Service, Southwest Region dated December 7, 2011.

3. Adverse impacts to eelgrass shall be measured as the difference between the pre-construction and post-construction estimates of eelgrass cover and density. The extent of vegetated cover is defined as that area where eelgrass is present and where gaps in coverage are less than one meter between individual turion clusters. Density is defined as the average number of turions per unit area.

4. Density and extent of vegetative cover shall be estimated at control areas during pre-construction surveys, post-construction surveys, and during annual monitoring. Changes in density and extent of vegetated cover of the control areas shall be used to account for natural variability. Selection of an appropriate control site shall be performed in consultation with the Department of Fish and Game and NOAA-Fisheries staff.

5. Impacts to eelgrass shall be avoided to the maximum extent feasible. If post-construction survey results demonstrate to the satisfaction of the Executive Director that eelgrass densities have not decreased at all and there has been no loss of extent of vegetated cover, then no further monitoring or mitigation is required. If post-construction eelgrass surveys indicate any decrease in eelgrass density or cover, then an eelgrass mitigation and monitoring plan shall be prepared and submitted for the review and approval of the Commission. The mitigation methods, the location of the mitigation sites, and the monitoring plan shall be in complete compliance with all recommendations of Appendix D, "Recommended Measures for Eelgrass Impact Mitigation," of the Draft California Eelgrass Mitigation Policy prepared by the National Marine Fisheries Service, Southwest Region dated December 7, 2011 and shall provide for the following:

   (a) The plans shall provide for a transplant area to impact area ratio of 4.82 to 1.

   (a) Within three years of completion of the transplanting, the eelgrass mitigation site shall have an extent of vegetative cover equal to at least 1.2 times the impacted area and have an average density equal to the pre-construction average density.

   (b) The plan shall provide for mitigation site identification, planting methods, monitoring methods, and schedule. Specific success and monitoring criteria are as follows:

      i. A minimum of 70 percent aerial coverage and 30 percent density in the mitigation area after the first year;

      ii. A minimum of 85 percent aerial coverage and 70 percent density in the mitigation area after the second year;

iii. A minimum of 100 percent aerial coverage and 85 percent density in the mitigation area after the third year.

(c) Monitoring methods shall include mapping and random sampling of the eelgrass mitigation areas using a sampling size adequate to obtain representative qualitative data for the entire project site to determine percent cover and shoot density as defined in subsection (4) above.

(d) A detailed monitoring schedule shall be provided that indicates when each of the required monitoring events will be completed. Monitoring reports shall be provided to the Executive Director, DFG, and NOAA-Fisheries within 30 days of completion of each required monitoring period;

(e) If the impacted eelgrass mitigation areas have not met the recovery standard in subsection (b)above in three years, the permittee shall submit an application for an amendment to Coastal Development Permit No. 1-12-004 proposing additional mitigation to ensure all performance criteria are satisfied consistent with all terms and conditions of this permit.

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

3. <u>Timing of Construction</u>

a. In-water construction activities authorized by this permit, shall be conducted during the period of June 1 through November 15, or for such additional time that the Executive Director may permit for good cause and in consultation with all relevant resource protection agencies, to minimize conflicts with commercial and recreational fisheries and to protect sensitive fish species; and

b. All construction activities involving the removal and/or placement of rip rap within coastal waters authorized under this coastal development permit shall be conducted during periods of low-tides only and from above the water surface to the maximum extent feasible to minimize the generation of suspended sediment and potential water quality impacts.

4. <u>Construction Responsibilities</u>

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

a. No construction materials, equipment, debris, or waste shall be placed or stored where it may be subject to wave, wind, or rain erosion and dispersion. Construction materials shall be stored only in approved designated staging and stockpiling areas;

b. Public roadway surfaces adjacent to the construction site entrances shall be swept at the end of each day to remove sediment and/or other construction materials deposited due to construction activities and prevent such sediment and/or materials from contaminating coastal waters or other environmentally sensitive habitat areas;

c. Any and all debris resulting from construction activities shall be removed from the inner boat basin and adjacent beach areas on a daily basis and disposed of at an appropriate location(s);

d. Any fueling and maintenance of construction equipment shall occur within upland areas outside of environmentally sensitive habitat areas or within designated staging areas. Mobile fueling of construction equipment and vehicles on and around the inner boat basin construction site shall be prohibited. Mechanized heavy equipment and other vehicles used during the construction process shall not be stored or re-fueled within 50 feet of drainage courses and other coastal waters;

e. Temporary staging and storage of construction machinery, equipment, debris, and other materials during the construction period shall occur on land at property owned by the Crescent City Harbor District and may not occur within harbor waters or on adjacent beaches;

f. Machinery and construction materials not essential for project improvements are prohibited at all times in the subtidal or intertidal zones;

g. Construction vehicles shall be maintained and washed in confined areas specifically designed to control runoff and located more than 100 feet away from the mean high tide line;

h. Floating booms shall be used to contain debris discharged into coastal waters, and any debris discharged shall be removed as soon as possible but no later than the end of the each day;

i. During construction, all trash shall be properly contained, removed from the work site, and disposed of on a regular basis to avoid contamination of habitat during inner boat basin rehabilitation activities. Following construction, all trash and construction debris shall be removed from work areas and disposed of properly;

j. Fuels, lubricants, and solvents shall not be allowed to enter the coastal waters. Hazardous materials management equipment including oil containment booms and absorbent pads shall be available immediately on-hand at the project site, and a registered first-response, professional hazardous materials clean-up/remediation service shall be locally available on call; and

k. At the end of the construction period, the permittee shall inspect the project area and ensure that no debris, trash, or construction materials remain on land or in the water, and that the project has not created any hazard to navigation.

5. <u>Final Sedimentation & Stormwater Runoff Control Plan</u>

A. **PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. 1-12-004**, the applicant shall submit, for the review and written approval of the Executive Director, a final detailed Sedimentation & Stormwater Runoff Control Plan that addresses all phases of development and construction activities authorized under this coastal development permit.

(1) The Sedimentation and Run-off Control Plan shall be consistent with the requirements of Special Condition No. 3 and the other conditions of this permit, and demonstrate that:

(a) Run-off from the project site shall not increase sedimentation in coastal waters;

(b) Run-off from the project site shall not result in pollutants entering coastal waters;

(c) Best Management Practices (BMPs) shall be used to prevent the entry of polluted stormwater runoff into coastal waters during the construction of the authorized structures, including, but not limited to, the use of relevant best management practices (BMPs) as detailed in the "California Storm Water Best Management Practice Handbooks (Construction and Industrial/ Commercial), developed by Camp, Dresser, & McKee et al. for the Storm Water Quality Task Force (e.g., BMP Nos. EC-1–Scheduling, SE-1–Silt Fence &/or SE-9–Straw Bale Barrier, NS-9–Vehicle & Equipment Fueling, NS-10–Vehicle & Equipment Maintenance & Repair; NS-14–Material Over Water, NS-15–Demolition Adjacent to Water, WM-1–Material Delivery & Storage, WM-3–Stockpile Management, WM–Spill Prevention & Control, WM-6–Hazardous Waste Management, WM-9–Concrete Waste Management, SC-

11–Spill Prevention, Control, & Cleanup, and others, as appropriate;

(2) The Sedimentation and Run-off Control Plan shall include, at a minimum, the following components:

(a) A schedule for the installation and maintenance of appropriate construction source control best management practices (BMPs) to prevent entry of stormwater run-off into the construction site and the entrainment of excavated materials into run-off leaving the construction site; and

(b) A schedule for installation, use and maintenance of appropriate BMPs to prevent the entry of polluted stormwater run-off from the completed development into coastal waters.

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

6. <u>Hazardous Materials Management Plan</u>

A. **PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. 1-12-004**, the applicant shall submit, for the review and written approval of the Executive Director, a plan to reduce impacts to water quality from the use and management of hazardous materials on the site. The plan shall be prepared by a licensed engineer with experience in hazardous materials management. The plan shall address all phases of development and construction activities authorized under this coastal development permit and shall be consistent with the requirements of Special Condition No. 3 and the other conditions of this permit. The plan, at a minimum, shall provide for the following:

(1) Equipment fueling shall occur only during daylight hours in designated fueling areas;

(2) Oil absorbent booms and/or pads shall be on site at all times during project construction. All equipment used during construction shall be free of oil and fuel leaks at all times;

(3) Provisions for the handling, cleanup, and disposal of any hazardous or non-hazardous materials used during the construction project including,

but not limited to, paint, asphalt, cement, equipment fuel and oil, and contaminated sediments;

(4) A schedule for maintenance of containment measures on a regular basis throughout the duration of the project;

(5) Provisions for the containment of rinsate from the cleaning of equipment and methods and locations for disposal off-site. Containment and handling shall be in upland areas and otherwise outside of any environmentally sensitive habitat areas;

(6) A site map detailing the location(s) for hazardous materials storage, equipment fueling and maintenance, and any concrete wash-out facilities; and

(7) Reporting protocols to the appropriate public and emergency services agencies in the event of a spill.

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

7. <u>Debris Disposal Plan</u>

(A) **PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. 1-12-004,** the applicant shall submit, for the review and approval of the Executive Director, a plan detailing the methods by which, and locations at which excavated material and other project debris will be legally disposed. The plan shall demonstrate at a minimum that:

(i) No construction materials, debris, or waste shall be placed or stored where it may be subject to entering waters of Crescent City Harbor; and

(ii) All construction debris, including general wastes from the excavation of existing damaged rock slope protection materials shall be removed and disposed of in an upland location outside of the coastal zone or at an approved disposal facility.

(B) The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a

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

8. Assumption of Risk

By acceptance of this permit, the applicant acknowledges and agrees: (i) that the site may be subject to hazards from waves, tidal inundation, and other hazards; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

9. U.S. Army Corps of Engineers Approval

PRIOR TO COMMENCEMENT OF ANY DEVELOPMENT AUTHORIZED BY COASTAL DEVELOPMENT PERMIT NO. 1-12-004, the permittee shall provide to the Executive Director a copy of a individual permit, nationwide permit, letter of modification or other approval issued by the Army Corps of Engineers reflecting final design modifications, or evidence that no letter of modification or other approval is required. The applicant shall inform the Executive Director of any changes to the project required by the Corps, including but not limited to, required changes that may conflict with modifications or conditions imposed by the Commission in approving Coastal Development Permit No. 1-12-004. 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.

10. State Lands Commission Review

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT NO. 1-12-004, the applicant shall submit to the Executive Director, a written determination from the State Lands Commission that:

a. No State lands are involved in the development; or

b. State lands are involved in the development and all permits required by the State Lands Commission have been obtained; or

c. State lands may be involved in the development, but pending a final determination an agreement has been made with the State Lands Commission for the project to proceed without prejudice to that determination.

11. National Marine Fisheries Service Consultation Results

PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. 1-12-004, the permittee shall provide to the Executive Director a copy of the informal consultation, letter of concurrence, biological opinion or other documentation issued by the National Marine Fisheries Service (NOAA Fisheries) regarding their assessment of the potential effects of the development on fish and wildlife species subject to protections of the Endangered Species Act, the Marine Mammals Protection Act, the Magnuson-Stevens Fishery Conservation and Management Act, the Marine Mammals Protection Act, and all other applicable natural resources law. The applicant shall inform the Executive Director of any changes to the project required by NOAA Fisheries, including but not limited to, required changes that may conflict with modifications or conditions imposed by the Commission in approving Coastal Development Permit No. 1-10-035. 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 & DECLARATIONS

The Commission hereby finds and declares as follows:

A. Background.

On March 11, 2011, a tsunami generated by the 9.0 magnitude Tohoku Earthquake off the coast of Japan struck the California coast. The Crescent City Harbor experienced extensive damage from the tsunami with the greatest damage occurring within the harbor's Inner Boat Basin. Virtually all of the docks in the Inner Boat Basin were destroyed and many vessels sank, leaving the Inner Boat Basin non-functional. Extensive damage also occurred to the rock slope protection (RSP) covering the shoreline embankment around the perimeter of the Inner Boat Basin. Other damage occurred elsewhere within the Harbor, including damage to the RSP covering the shoreline embankment adjacent to the Administrative dock near the entrance to the Inner Boat Basin. In addition, damage occurred in four separate locations to the RSP covering the shoreline within the Outer Boat Basin of the harbor. Furthermore, the surges from the tsunami caused extensive shoaling of sand within both the Inner and Outer Boat Basins.

Permit Application No. 1-12-004 proposes harbor rehabilitation development work needed to repair a portion of the damage to the harbor resulting from the March 11, 2011 tsunami. The permit application seeks authorization to repair damage to facilities at

Crescent City Harbor District's outer boat basin resulting from the March 3011 tsunami and restore the outer boat basin to its pre-March 2011 capacity and function. The elements of the project include dredging approximately 251,160 cubic yards of shoaled sediments from the bottom of the Outer Boat Basin to restore adequate depths for navigation and placing 3,731 cubic yards of new rock to repair the existing shoreline revetment at five locations along the interior embankments of the basin and along the shoreline embankment adjacent to the Administrative dock near the entrance to the Inner Boat Basin.

B. Project Setting

Crescent City Harbor is located approximately 20 miles south of the California-Oregon border in west-central Del Norte County (see Exhibit Nos. ___). The harbor lies on the seaward edge of the broad coastal plain that extends from South Beach to the south to the lower Smith River floodplain to the north. The harbor lies within a crescent-shaped bay, with Battery Point as the upcoast (western) limit and the rocky causeway connecting the former offshore Whaler Island, approximately one mile to the southeast, as the downcoast (eastern) limit. A significant anadromous fish-bearing watercourse, Elk Creek, enters the harbor on its northeastern shoreline.

The relative location of this south-facing cove, situated between the Ports of Humboldt Bay and Brookings (Oregon), makes it an important "harbor of refuge" from the predominantly northwesterly winds and seas in the area. In addition, the constructed outer breakwaters provide supplemental protection against westerly and southerly storms. Facilities within the bounds of the harbor include a boat basin, launch areas, a repair and fabrication boatyard, associated marina fueling, lift hoist, drayage, stevedore, waste disposal services, a recreational vehicle park, and other ancillary visitor accommodations and harbor-related services.

Two principal features of the Crescent City Harbor are the Inner Boat Basin and the Outer Boat Basin. The Inner Boat Basin is located northwest of Citizen's Dock Road. The Inner Boat Basin comprises an approximately 17.5-acre rectangular area of water area partially enclosed by revetment covered shoreline embankment on most of three sides and an in-water breakwater along its seaward side. The Inner Boat Basin is the main berthing area for commercial fishing boats and recreational vessels at the harbor.

The Outer Boat Basin is located to the south and is more seaward than the Inner Boat Basin. The Outer Boat Basin includes the waters of the harbor that are seaward of the shore-side industrial area of the harbor and which are partially enclosed by (a) the approximately half-mile long narrow projection of filled land that extends perpendicular to the shoreline to Whaler Island and supports Anchor Way, and (b) a breakwater that extends northwest from Whaler Island parallel to the mainland.

The specific project area of Coastal Development Permit Application No. 1-12-004 includes the Outer Boat Basin as well as the site of the Administrative Dock, located just

outside the rectangular Inner Boat Basin along the shoreline adjacent to the end of Citizen's Dock Road just east of the Federal Channel that leads into the Inner Boat Basin (See Exhibit 3)

The surfaces of the Outer Boat Basin revetment, breakwater, and dock pilings support habitat for a diversity of marine algal, invertebrate, and fish species. The harbor, in general, provides habitat to a variety of sensitive fish and wildlife species, including coho salmon and Steller sea lion. Although eelgrass (Zostera marina) had not been known to inhabit tidal and submerged areas of the Crescent City Harbor, eelgrass beds have been recently discovered by staff of the Department of Fish & Game in certain locations within the Outer Harbor Basin and near the Administrative Dock location since the tsunami. Eelgrass is considered Essential Fish Habitat (EFH) under the Magnuson-Stevens Fishery Conservation and Management Act. A preliminary eelgrass survey was conducted by the Harbor District's consultants on March 13, 2012 at various locations along the Outer Harbor Basin shoreline and also along the shoreline area in the vicinity of the Administrative Dock, near the entrance to the Inner Boat Basin. The preliminary survey located an approximately 289 square meter eelgrass bed southwest of the entrance to the public boat launch area at the southern corner of the Outer Boat Basin. A separate approximately 241-square-meter eelgrass bed was located in the vicinity of the Administrative Dock. The surveyed bed is located just to the northeast of the Administrative Dock, but does not extend to the Administrative Dock location itself. The extent of eelgrass preliminary survey may have only located some of the eelgrass that exists in and around the Outer Boat Basin. The preliminary survey was not conducted during the eelgrass growing season and did not include the open waters of the Outer Boat Basin. The preliminary survey report includes recommendations that the areas adjacent to all of the RSP repair sites along the Outer Boat Basin should be re-surveyed in May 2012 as well as all areas of the Outer Boat Basin within and adjacent to any of the proposed dredging to determine the full extent of eelgrass within the project area.

C. Project Description

The proposed project would repair damage to facilities at Crescent City Harbor District's outer boat basin and an adjoining area near the entrance to the Inner Boat Basin resulting from the March 3011 tsunami and restore these facilities to their pre-March 2011 capacity and function. The proposed development includes the following elements:

Dredging

The tsunami consisted of a series of waves that were most intense between 6:00 a.m. and 11:30 a.m on March 11, 2011, but continued for over a 48 hour period within the harbor area. The rapid fluctuation and high velocity of the wave action and the water level was sufficient to suspend sand and carry suspended sand into the outer boat basin and harbor area. As water movement slowed, sedimentation and shoaling occurred. Normal operational depths of the outer basin are generally -12 feet adjacent to the federal

entrance channel, -15 feet in the vicinity of the commercial fleet hoist and operational docks along the northwestern side of the outer basin, and -10 feet in the recreational marina along the western side of the outer boat basin. Sedimentation and shoaling from the tsunami did not deposit sand uniformly across the bottom of the outer boat basin. Along the federal channel, shoaled sand deposits are visible at low tide, the commercial operational area has depths as shallow as 3.2 feet, and the recreational marina had depths as shallow as 4 feet.

To restore adequate depths for vessel navigation and boat berthing, the Harbor District proposes to dredge approximately 251,160 cubic yards of material from an approximately 58.4 acre area that includes the recreational marina area, the commercial/industrial docks area, and the area adjoining the Federal Channel of the outer boat basin. The dredging would re-establish the previous depths of the different sections of the basin described above. Exhibit 4 shows the planned dredged depths for the different portions of the outer basin. The dredged material would be placed on barges and transported for disposal at the Humboldt Open Ocean Dredged Site (HOODS), located in federal waters offshore from Eureka. As the disposal occurs outside the coastal zone, Coastal Development Permit No. 1-12-004 does not address the disposal. However, the disposal at the Hoods disposal site will require separate federal consistency review by the Commission.

The dredging would be performed by clamshell dredge or by a large excavator. A floating boom would be placed around the perimeter of the dredging area and a silt curtain would be placed around the immediate area of dredging. The barges would be equipped with a screen (commonly referred to as a grizzly) with approximately one foot grids to separate out the larger pieces of debris picked up within the dredged sediment. Screened material would be brought to shore and transported for disposal through the Del Norte County Solid Waste Transfer Station.

Replace Rock Slope Protection

The high velocity wave action of the tsunami damaged the existing rock slope protection that lines the embankments that form the inner perimeter of the outer boat basin, although not to the extent that the rock slope protection within the inner boat basin was damaged. Within the outer boat basin, the damage was limited to four specific areas along the east side of the outer boat basin, including in locations near the public recreational boat launching facility and elsewhere along the breakwater that extends to Whaler Island. See Exhibit 4. In addition, damage to the RSP that occurred along the embankment adjacent to the Administrative dock near the entrance to the Inner Boat Basin would be repaired.

As proposed, a total of approximately 4,200 cubic yards of the existing RSP and accumulated sediments overlying the lower portions of the RSP at the damaged sites along the shoreline embankments would be removed and replaced. A total of approximately 3,731 cubic yards of new quarry rock would be placed in the five damage

areas to rebuild the RSP. Approximately 3,300 cubic yards of new material would be placed at the repair site near the Administrative Dock with the remaining 431 cubic yards of new material being placed at the other four repair sites along the east side of the outer boat basin.

The reconstruction of the RSP at the four repair sites along the west side of the outer boat basin would restore the RSP to its original form and would encroach no further into the water than the originally constructed RSP. The repairs of the RSP at the Administrative Dock would differ from the other RSP repairs in that instead of simply reconstructing the RSP to its original shape and form, material would be added to the existing bank to buttress the embankment. Approximately 4-ton stone would be placed to establish a 3:1 slope starting somewhat below the top of bank at the 3-foot elevation and extending down to the toe at -17 or -18, depending on the actual scour depth from the tsunami. Some limited excavation at the toe would occur to seat the large stone property. Any excavated sand material would be disposed of with the dredged material.

D. Revetment Repair & Maintenance

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 (emphasis added):

> *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.*

Section 13252 of the Commission administrative regulations (14 CCR 13000 *et seq*.) provides, in relevant part (emphasis added):

> *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, including but not limited to the regulations governing administrative and emergency permits. The provisions of this section shall not be applicable to methods of repair and maintenance undertaken by the ports listed in Public Resources Code section 30700 unless so provided elsewhere in these regulations. The provisions of this section shall not be applicable to those activities specifically described in the document entitled Repair, Maintenance and Utility Hookups, adopted by the Commission on September 5, 1978 unless a proposed activity will have a risk of substantial adverse impact on public access, environmentally sensitive habitat area, wetlands, or public views to the ocean.…*

The proposed repairs to the existing rock slope protection at the four repair sites along the east side of the outer boat basin constitute a repair and maintenance project because repairs do not involve an addition to or enlargement of the subject rock slope protection. The repairs at these four locations would encroach no further into the water than the originally constructed RSP. The repair of the RSP at the Administrative Dock does not constitute a repair and maintenance project because the proposed repair in this location involves an addition to or enlargement of the subject rock slope protection. Instead of simply reconstructing the RSP to its original shape and form, material would be added to the existing bank to buttress and enlarge the embankment.

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 repair work involves the placement of construction materials and removal and placement of solid materials within 50 feet of a coastal bluff and within 20 feet of coastal waters. The proposed repair project therefore requires a coastal development permit under CCR Section 13252(a)(1).

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.

The repair and maintenance of shoreline protective devices, such as is proposed under the subject CDP application, can have adverse impacts on coastal resources, in this case primarily tidal wetlands and coastal waters adjacent to the project area, if not properly undertaken with appropriate mitigation. As described above, the applicant proposes to repair and maintain the existing rock slope shoreline protective device by placing quarry rock at the individual repair locations. The rock is proposed to be placed on to restore the 1.5 horizontal to 1 vertical slope of the rock slope protection revetment as it was originally constructed. The applicant has included a number of mitigation measures as part of its proposal, as discussed above, such as limiting work to the dry season and using standard appropriate Best Management Practices (BMPs) to avoid sediment discharges to the waters of the harbor. Although these and other measures proposed by the applicant are appropriate, additional measures are needed to avoid or minimize potential project impacts on water quality and adjacent wetland habitats. The conditions required to meet these standards are discussed in the following findings relevant to water quality and marine resources. Therefore, as conditioned, the Commission finds that the proposed rock slope protection repairs at the four repair sites along the west side of the outer boat basin are consistent with all applicable Chapter 3 policies of the Coastal Act.

E. Protection of Coastal Waters & Water Quality.

1. Applicable Coastal Act Policies and Standards

Section 30230 of the Coastal Act states the following:

> *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.* [Emphasis added.]

Section 30231of the Coastal Act states the following (emphasis added):

> *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. .* [Emphasis added.]

Section 30232 of the Coastal Act states the following:

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

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

> *(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*
> *(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 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.*
> *(4) 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.*
> *(5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*
> *(6) Restoration purposes.*
> *(7) Nature study, aquaculture, or similar resource dependent activities…*
> *(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…*[Emphasis added.]

2. Consistency Analysis

The proposed outer boat basin dredging and revetment repairs and upgrades that will involve dredging and filling within coastal waters

When read together as a suite of policy directives, Sections 30230, 30231, and 30233 of the Coastal Act set forth a number of different limitations on what types of projects may be allowed in coastal wetlands and waters. For analysis purposes, the limitations applicable to the subject project can be grouped into four general categories or tests. These tests require that projects that entail the dredging, diking, or filling of wetlands and waters demonstrate that:

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

Each category is discussed separately below.

Permissible Use for Dredging and Filling in Coastal Waters

The Commission must evaluate the proposed dredging and enlargement of the rock slope protection revetment near the Administration Dock as "new" development rather than as a repair and maintenance project. As discussed in Finding D, above, the other rock slope protection repairs proposed at the four sites along the eastern side of the outer boat basin are considered repair and maintenance for which the Commission reviews whether the proposed method of repair or maintenance is consistent with the Chapter 3 policies of the Coastal Act but does not evaluate the development for conformity with the use limitations of the Coastal Act

For analysis purposes, the Commission must find that the proposed dredging and fill within the intertidal and tidal zone is for an allowable purpose as specified under Section 30233 of the Coastal Act. The relevant categories of uses listed under Section 30233(a) that relate to the proposed revetment improvements are subsection (1) involving new or expanded port facilities, including commercial fishing facilities, and subsection, (2) dredging for maintaining existing, or restoring previously dredged depths in existing vessel berthing and mooring areas, and launching ramps, and (3) in open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities that provide public access and recreational opportunities.

The outer boat basin was constructed to create a harbor for boaters to moor, launch, and retrieve their boats. Once the outer boat basin is rehabilitated back to its original configuration and structurally augmented, exposure of persons and property to potentially injury and damage from wave attack will be lessened.

As the applicant proposes to undertake these improvements to the outer boat basin to provide essential protection for the safety and longevity of commercial fishing and recreational boat mooring, loading and launching operations, the Commission finds that the proposed fill for the rock slope protection improvements is permissible under Section 30233(a) subsection (1) for new or expanded port facilities, including commercial fishing facilities, and subsection (3) for new or expanded boating facilities in open coastal waters, other than wetlands, including streams, estuaries, and lakes, that provide public access and recreational opportunities.

Furthermore, as the proposed dredging is limited to areas that have been previously dredged to the same elevation for vessel berthing and mooring, the Commission finds that the proposed dredging is consistent with Section 30233(2) allows dredging for maintaining existing, or restoring previously dredged depths in existing vessel berthing and mooring areas, and launching ramps.

Least Environmentally Damaging Feasible Alternative

The second test set forth by the Commission's dredging and fill policies is that the proposed fill project must have no feasible less environmentally damaging alternative. Coastal Act Section 30108 defines "feasible" as follows:

"Feasible" means capable of being accomplished in a successful manner within a reasonable time, taking into account economic, environmental, social, and technological factors.

Alternatives to the proposed project that were examined include the "no-project" alternative. As explained below, the alternatives analyzed are infeasible and/or do not result in a project that is less environmentally damaging than the proposed project as conditioned:

"No-Project" Alternative

The "no project" alternative would mean that no dredging of the outer boat basin and no repairs to the rock slope protection would be undertaken.

With no dredging, there would be no impacts from dredging. However, without the proposed dredging, the sandy material that has shoaled within the basin would continue to interfere with vessel and navigation and limit access to the basin berthing areas that have historically been used for commercial fishing vessels or recreational boating, except by the shallowest draft vessels. Boaters who used the site prior to the March 11, 2011 tsunami would continue to be displaced. As there are limited mooring facilities on the North Coast, 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. 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.

Without the proposed repairs and augmentation of the rock slope protection lining the shoreline embankments of the outer boat basin and in the area of the Administration Doc, erosion of the shoreline embankments would continue further causing blockage of certain vessel navigation, launching, and mooring areas and erosion of shore-side facilities. As discussed above, Crescent City Harbor has been used for commercial and recreational fishing for decades, and it provides the only harbor of refuge from the common northwesterly winds and seas between Brookings in southern Oregon and Trinidad Bay in Humboldt County. Moreover, 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 to the proposed project, as conditioned.

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.

Conclusion

For all of the reasons discussed above the Commission finds that there is no less environmentally damaging feasible alternative to the development as conditioned, as required by Section 30233(a).

Feasible Mitigation Measures

The third test set forth by Section 30233 is whether feasible mitigation measures have been provided to minimize adverse environmental impacts. The proposed development would be located within and around coastal waters and wetlands. Depending on the manner in which the proposed filling is conducted, the significant adverse impacts of the project may include: (1) effects on sensitive fish and wildlife species; (2) water quality impacts from the placement of sediment containing materials in and/or undertaking

construction involving the use of hazardous materials in close proximity to coastal waters; and (3) displacement of harbor bottom habitat by the installation of additional rock slope protection. The potential impacts and their mitigation are discussed below.

Effects on Sensitive Fish and Wildlife Species

To avoid impacts to various sensitive fish and wildlife species, the applicant proposes that the inner boat basin in-water repairs and upgrade construction be undertaken between June 1 and November 15. Mechanized equipment needed for the project includes dredging equipment, barges, and various land-based material delivery vehicles, excavators, back-hoes, and possibly a crane.

NOAA Fisheries staff has not completed its review of the proposed project. However, On April 26, 2011, the National Marine Fisheries Service ("NMFS" or "NOAA Fisheries") issued an informal consultation letter for the associated Corps FCWA Section 404 permit for tsunami repairs and harbor upgrades within the Inner Boat Basin. The informal consultation outlined that project's potential effects on marine species listed under the federal Endangered Species Act and "Essential Fish Habitat" (EFH) under the Magnuson-Stevens Fishery and Conservation Act. The consultation addressed potential impacts to various threatened and endangered species evaluated in the biological assessment provided by the funding agency, including coho salmon (*Oncorhynchus kisutch*), Steller Sea lions (*Eumetopias jubatus*), Western Snowy Plover (Charadrius alexandrinus nivosus), Marbled Murrelet (*Brachyramphus marmoratus*), and California Brown Pelican (*Pelecanus occidentalis*), and EFH for salmon species.

The NOAA Fisheries consultation for the preceding inner boat basin repair and enhancement project concluded that the project may affect, but is not likely to adversely affect, listed salmonids, Steller sea lions, western snowy plovers, marbled murrelets, and California brown pelicans (see CDP Amendment No. 1-10-035-A1, Exhibit No. 10).

The applicant has structured the proposed outer boat basin project to employ the same impact avoidance and mitigation measures as was used in the inner boat basin repair and enhancement project and has similarly asserted that the project would have no effect on sensitive species.

Based on: (1) the conclusion of the biological assessment prepared by the Harbor District that the development will not result in significant adverse impacts on marine biological resources; (2) the informal consultation letter for the associated tsunami repairs and harbor upgrade project within the Inner Boat Basin and its findings that based upon the impact avoidance and mitigation measures cooperatively developed by the applicant and the agency, the proposed project will not likely result in significant direct or cumulative impacts to endangered or threatened species or other protected fish and wildlife; (3) the proposed mitigation measures incorporated into the project to schedule construction when sensitive species are unlikely to be within the harbor, and (4) the results of other biological consultations conducted by NOAA Fisheries for other development activities in the harbor, including navigational channel maintenance dredging and breakwater

repair work, the Commission finds that with the attachment of certain special conditions, the proposed project is consistent with the Coastal Act Chapter 3 policies.

To ensure that the proposed outer boat basin repairs and enhancements are carried out in a manner that will not cause significant adverse impacts to sensitive fish species or habitat, as to be determined by NOAA Fisheries staff, the Commission attaches **Special Condition Nos. 1, 2, and 4**. These conditions require that final revised plans for the development incorporate all impact minimizing mitigation measures identified in the final letter of concurrence or biological opinion, and that in-water construction activities be conducted only during the period of June 1 through November 15, to protect sensitive fish and marine mammal species by avoiding times of the year when these species are normally present. Furthermore, the conditions require that all project work be conducted during periods of low-tides only, above the water surface to minimize suspended sediment and potential water quality impacts that could affect sensitive fish and wildlife species. Special Condition Nos. 9 through 11 require that the applicant inform the Executive Director of any changes to the project required by the Corps, NOAA Fisheries and other reviewing agencies, including any changes that may conflict with the modifications or conditions imposed by the Commission in approving CDP 1-12-04, and obtain a permit amendment for such changes. Final review and coordination with NOAA Fisheries and all other reviewing agencies except for the Army Corps of Engineers must occur prior to issuance of the CDP, with Army Corps of Engineers coordination occurring prior to commencement of development. With these conditions, the Commission will be able to reconsider through a permit amendment if necessary, the consistency of the proposed project as modified with the Coastal Act if NOAA Fisheries or the other reviewing agencies require changes to the project to further mitigate impacts on biological resources that are not currently anticipated.

Construction and Runoff Impacts on Water Quality

The proposed rock slope protection repairs and dredging could adversely affect water quality. The outer boat basin rehabilitation work involves placing rock within and adjacent to coastal waters and the use of heavy equipment. The use of construction equipment and materials within sensitive marine and beach habitats could lead to habitat contamination and impacts through the discharge of debris, trash, and contaminants such as leaky gas and other fluids and sediment- and other pollutant-laden runoff. Allowing such debris or pollutants to enter the ocean could adversely affect water quality and marine organisms inconsistent with Coastal Act Sections 30230, 30231, and 30232.

Coastal Act Section 30231 protects the quality of coastal waters, streams, and wetlands through, among other means, controlling runoff. Sediment-laden runoff from a project work site, upon entering coastal waters, increases turbidity and adversely affects fish and other sensitive aquatic species. Sediment is considered a pollutant that affects visibility through the water and affects plant productivity, animal behavior (such as foraging) and reproduction, and the ability of animals to obtain adequate oxygen from the water. In addition, sediment is the medium by which many other pollutants are delivered to aquatic

environments, as many pollutants are chemically or physically associated with the sediment particles.

In addition, Coastal Act Section 30232 requires protection against the spillage of crude oil, gas, petroleum products and hazardous substances and requires that effective containments and cleanup procedures be provided for accidental spills that do occur. The applicant has proposed to prepare a hazardous materials management plan to address the transport, handling, and storage of fuels and other equipment fluids, with emphasis on preventing releases to the ocean or beach, and to address spill prevention, cleanup, and disposal. To date, however, no such plan has been prepared.

Given that the proposed construction methods and activities: (1) will be located within and adjacent to coastal waters and thus could cause an increase in sediment and other pollutants entering coastal waters and other sensitive habitats through either the release of polluted runoff from the project site and/or leaky equipment contaminating coastal waters and beaches; and (2) are located within an area of special biological significance, which warrants "special protection" under Coastal Act Section 30230, the Commission finds it necessary to attach Special Condition Nos. 3 through 6, as described below.

- **Special Condition No. 3** in part requires that certain construction activities, namely the removal and placement of rock slope protection within coastal waters authorized under the permit, shall be conducted during periods of low-tides only to minimize suspended sediment and potential water quality impacts.

- **Special Condition No. 4** requires adherence to various construction responsibilities including, but not limited to, the following: (a) construction methods shall conform to those described in Findings Section IV.B.2 *Project Description*, specifically, the outer boat basin rehabilitation shall be conducted from land (which will allow marine organisms inhabiting the existing inner boat basin to continue to have habitat available in areas of the inner boat basin not being worked on); (b) no construction materials, equipment, debris, or waste shall be placed or stored where it may be subject to wave, wind, or rain erosion and dispersion; (c) public roadway surfaces adjacent to the construction entrances shall be swept at the end of each day to remove sediment and/or other construction materials deposited due to construction activities, to prevent such sediment and/or materials from contaminating coastal waters or other environmentally sensitive habitat areas; (d) any and all debris resulting from construction activities shall be removed from the inner boat basin and adjacent beach areas on a daily basis and disposed of at an appropriate location(s); (e) any fueling and maintenance of construction equipment shall occur within upland areas outside of environmentally sensitive habitat areas or within designated staging areas, mobile fueling of construction equipment and vehicles on and around the inner boat basin construction site shall be prohibited, and mechanized heavy equipment and other vehicles used during the construction process shall not be stored

or re-fueled within 50 feet of drainage courses and other coastal waters; (f) construction vehicles shall be maintained and washed in confined areas specifically designed to control runoff and located more than 100 feet away from the mean high tide line; (g) floating booms shall be used to contain debris discharged into coastal waters, and any debris discharged shall be removed as soon as possible but no later than the end of the each day; (h) during construction, all trash shall be properly contained, removed from the work site, and disposed of on a regular basis to avoid contamination of habitat during restoration activities; (i) hazardous materials management equipment including oil containment booms and absorbent pads shall be available immediately on-hand at the project site, and a registered first-response, professional hazardous materials clean-up/remediation service shall be locally available on call; and (j) at the end of the construction period, the permittee shall inspect the project area and ensure that no debris, trash, or construction material remain on the beach, inner boat basin, or in the water.

- **Special Condition No. 5** requires submittal of a final Sedimentation and Runoff Control Plan, which shall demonstrate that: (a) run-off from the project site shall not increase sedimentation in coastal waters; (b) run-off from the project site shall not result in pollutants entering coastal waters; and (c) Best Management Practices (BMPs) shall be used to prevent the entry of polluted stormwater runoff into coastal waters during the construction of the authorized structures.
- **Special Condition No. 6** requires submittal of a final Hazardous Materials Management Plan, which, at a minimum, shall provide for the following (a) equipment fueling shall occur only during daylight hours in designated fueling areas; (b) oil absorbent booms and/or pads shall be on site at all times during project construction, and all equipment used during construction shall be free of oil and fuel leaks at all times; (c) provisions for the handling, cleanup, and disposal of any hazardous or non-hazardous materials used during the construction project including, but not limited to, paint, asphalt, cement, equipment fuel and oil, and contaminated sediments; (d) a schedule for maintenance of containment measures on a regular basis throughout the duration of the project; (e) provisions for the containment of rinsate from the cleaning of equipment and methods and locations for disposal off-site; (f) a site map detailing the location(s) for hazardous materials storage, equipment fueling and maintenance, and any concrete wash-out facilities; and (g) reporting protocols to the appropriate public and emergency services agencies in the event of a spill.

Loss of Harbor Bottom Habitat

The applicant is proposing to buttress the rock slope protection along the shoreline embankment adjacent to the Administration Dock. The expanded rock slope protection

would be performed on the silty-sandy substrate that underlies the Crescent City Harbor. Such harbor bottom materials typically support a variety of worms, mollusks, and other benthic organisms. However, this displacement is not a significant adverse impact to the habitat.

The primary adverse effect is the displacement of the soft bottom substrate, resulting in a loss of habitat area for invertebrates that dwell in or on the substrate within the intertidal area. On the other hand, the expanded rock slope protection provide hard intertidal substrate habitat that is beneficial for other kinds of sessile marine invertebrates such as barnacles and mussels. In past studies of the Crescent City Harbor conducted by Applied Environmental Technologies, Inc. in 2006 and URS Corporation in 2007 for the preceding maintenance dredging and breakwater repair projects, respectively, the harbor's consultants characterized the harbor waters, including in the sandy areas within the inner boat basin project area, to be very harsh intertidal environments subject to intensive wave action, wide temperature range fluctuations, and periodic tidal exposure at their periphery. As a result, larger areas within the inner harbor are effectively denuded of vegetative cover, and exhibit a pattern of decreasing density and diversity of marine epifauna corresponding to locations furthest into the harbor's dock and wharf recesses. In addition, the bottom materials within the boat basin were found to have a relatively high wood fragment content compared to similar areas further out into the harbor. These studies also reported that while the area of soft bottom habitat in the harbor is extensive, areas of hard intertidal substrate are relatively limited to the perimeter shoreline revetments and remnants of the former sea stack known as Whaler's Island.

Therefore, the Commission finds that no additional mitigation is necessary for the buttressing of the rock slope protection along the shoreline embankment in the vicinity of the Administration Dock.

Conclusion

The Commission finds that as conditioned, all feasible mitigation measures have been provided to minimize adverse environmental effects consistent with Section 30233(a) of the Coastal Act. In addition, The Commission finds that as conditioned to require: (1) adherence to various construction responsibilities to protect coastal resources; (2) submittal of an eelgrass mitigation and monitoring plan, and (3) submittal of a final sedimentation and runoff control plan, hazardous materials management plan, and debris disposal plan; the proposed development is consistent with Coastal Act Sections 30230, 30231, and 30232.

Maintenance & Enhancement of Biological Productivity & Functional Capacity

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

As discussed above, the conditions of the permit will ensure that the project will not have significant adverse impacts on the water quality of any of the coastal waters in the project area and will ensure that the project construction will not adversely affect the biological productivity and functional capacity coastal waters or wetlands. Therefore, the Commission finds that the project, as conditioned, 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.

F. Protection of Commercial Fishing & Recreational Boating Facilities.

1. Applicable Coastal Act Policies and Standards

Section 30224 of the Coastal Act states:

> *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.* [Emphases added.]

Section 30234 of the Coastal Act states, in applicable part:

> *Facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded…* [Emphasis added.]

2. Consistency Analysis

Crescent City Harbor has long been used as a launch site for commercial and recreational fishermen, and provides the only harbor of refuge from the common northwesterly winds and seas between Brookings Oregon and Trinidad Bay in Humboldt County, as discussed above.

The outer boat basin's capability to moor and shelter watercraft from wave attack has been reduced due to 2006 tsunami event. In addition, the outer boat basin in its damaged condition is vulnerable to further damage that would likely lead to its eventual closure if the marina is not rehabilitated.

To minimize conflicts with biological resources, the proposed construction activities would occur between June 1 and November 15. Commercial and sports fishing is most

common during late spring through mid-fall, and again in late fall through winter during the crab season. The project will be conducted during part of this time period. However, the Commission finds that this impact is short-term and temporary, and the rehabilitation of the outer boat basin will restore boat mooring capacity and improve boating access and safety over the long-term..

Therefore, the Commission finds that the project as conditioned will protect and improve the existing boat launching facility that serves commercial fisheries and recreational boating, consistent with Coastal Act Sections 30224 and 30234.

G. Public Trust Lands.

The project site is located in an area that was formerly State-owned waters, but remains otherwise subject to the public trust. On July 13, 1963, by Senate Bill No. 1383, the State of California transferred all rights, title, and interest to portions of the submerged and tidelands within Crescent City Harbor and surrounding ocean waters to the District. In granting these ownership rights, the State Lands Commission (SLC) has retained authority over these former sovereign lands through both exempted and reserved rights to all deposits of minerals, and its public trust responsibilities under the state Constitution. Granted lands are monitored by the SLC to ensure compliance with the terms of the issued statutory grant. These grants encourage development of tidelands consistent with the public trust, while requiring grantees to re-invest revenues produced from the lands back into the lands where they are generated. In a letter dated March 28, 2008, States Land Commission staff indicate that no further perfection of use rights is necessary unless dredging is needed as part of the project. As the project does involve dredging, additional approval from SLC may be necessary for the proposed development. To assure that the applicant has a sufficient legal property interest in the site to carry out the project consistent with the terms and conditions of this permit, the Commission attaches Special Condition No. 10. This special condition requires that the applicant submit evidence that any necessary authorization from the State Lands Commission has been obtained prior to issuance of the permit.

H. U.S. Army Corps of Engineers Approval.

The project requires review and authorization by the U.S. Army Corps of Engineers ("USACE" or "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.

To ensure that the project ultimately approved by the Corps is the same as the project authorized herein, the Commission attaches Special Condition No. 9, which requires the applicant to submit to the Executive Director evidence of the Corps' approval of any design changes to the project prior to commencement of any development. The condition requires that any project changes resulting from this other agency approval not be incorporated into the project until the applicant obtains any necessary amendments to this coastal development permit.

I. Public Recreation and Access.

Coastal Act Section 30604(c) requires that every coastal development permit issued for new development between the nearest public road and the sea "shall include a specific finding that the development is in conformity with the public access and recreation policies of [Coastal Act] Chapter 3." The proposed project is located seaward of the first through public road.

Coastal Act Sections 30210 through 30214 and 30220 through 30224 specifically protect public access and recreation. In particular:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.* [PRC §30210]
>
> *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.* [PRC §30211]
>
> *Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects…* [PRC §30212(a)]
>
> *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.* [PRC §30213]
>
> *The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case…* [PRC §30214 (a)]

> *Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.* [PRC § 30221]
>
> *Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, [...] 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.* [PRC §30224]

Likewise, Coastal Act Section 30240 (b) also requires that development not interfere with recreational areas and states:

> *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.*

Crescent City Harbor provides public access and recreational opportunities of regional and statewide significance. These opportunities include boat launching, berthing for commercial vessels and recreational boats, boat repair areas, marine-related retail/commercial businesses, sailing programs, yacht club and boat sales, and passive recreational pursuits, such as shoreline walking, beachcombing, and bird-watching. The District's outer boat basin repair and upgrade project would strongly benefit public access and recreation, by restoring boat launching and mooring capacity and providing enhanced protection from coastal flooding and erosion storm surge to the harbor's mooring and launching areas.

Temporary impacts to public access as a result of construction activities are possible, but would be of limited duration and are not significant. Thus, the Commission concludes that the project as conditioned would protect boating and beach recreational opportunities consistent with Coastal Act Sections 30210, 30213, 30220, 30224, 30234 and 30234.5. Therefore, the Commission finds that, as conditioned, the proposed project would preserve public access and recreational opportunities and, is consistent with the above-cited public access and recreational policies of the Coastal Act.

J. California Environmental Quality Act (CEQA).

The Crescent City Harbor District served as the lead agency for the original project for CEQA purposes. The District found the subject inner boat basin repairs and upgrades qualified for "Class 1" and "2" categorical exemptions to environmental review,

pursuant to Sections 15301 and 15302 of the CEQA Guidelines (14 CCR §§15000) as repair, maintenance, replacement, and/or reconstruction of existing structures.

In response to the March 11, 2011 tsunami, the Governor of California declared a state of emergency for Del Norte and other affected coastal counties. The District found the additional repairs and actions needed to respond to the devastation caused by the March 11, 2011 tsunami qualified for categorical exemptions to environmental review, pursuant to Section 15269 of the CEQA Guidelines (14 CCR §§15000) as "Emergency Projects."

Section 13906 of the California Code of Regulation requires Coastal 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 requirements of the California Environmental Quality Act (CEQA). Public Resources Code 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 significantly lessen any significant effect that the activity may have on the environment.

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. As discussed above, the proposed amended development has been conditioned to be consistent with the policies of Chapter 3 of the Coastal Act. The 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 amended development, as conditioned to mitigate the identified impacts, can be found consistent with the requirements of the Coastal Act to conform to CEQA.

V. EXHIBITS

1. Regional Location Map
2. Vicinity Map
3. Site Map
4. Project Plans
5. Project Description
6. Preliminary Eelgrass Survey

APPENDIX A

STANDARD CONDITIONS

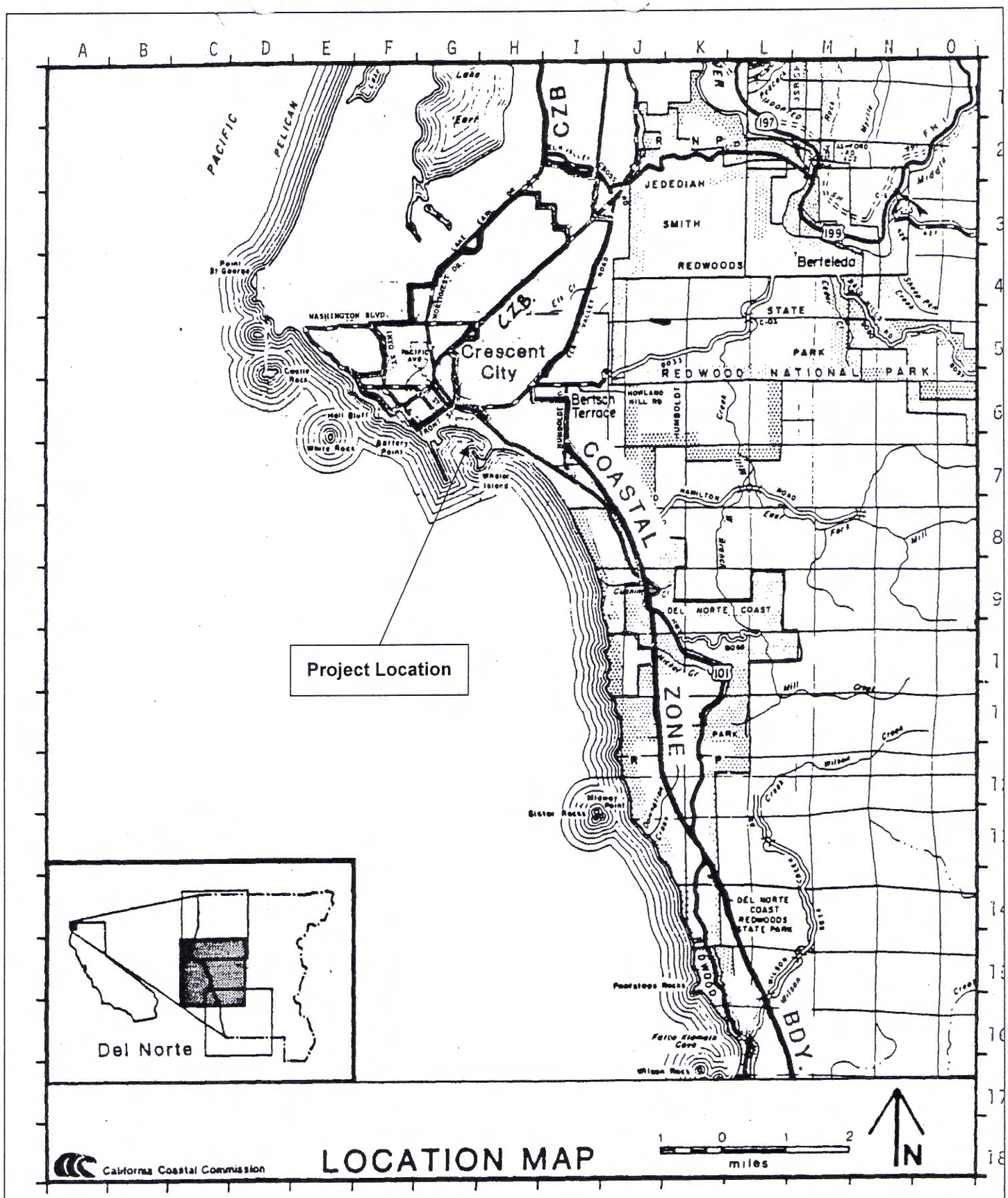
1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

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.



County of Del Norte

EXHIBIT NO. 1

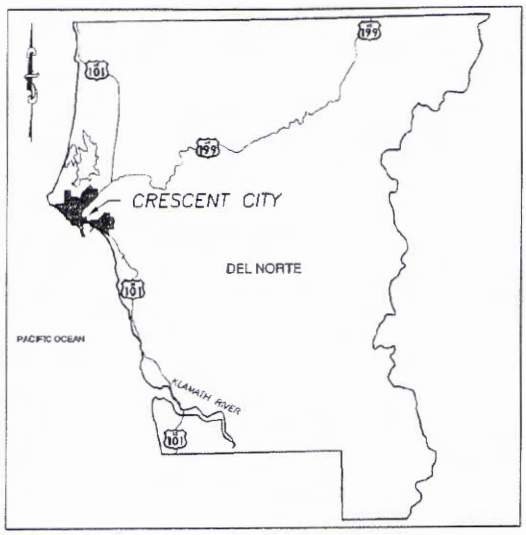
APPLICATION NO.

1-12-004

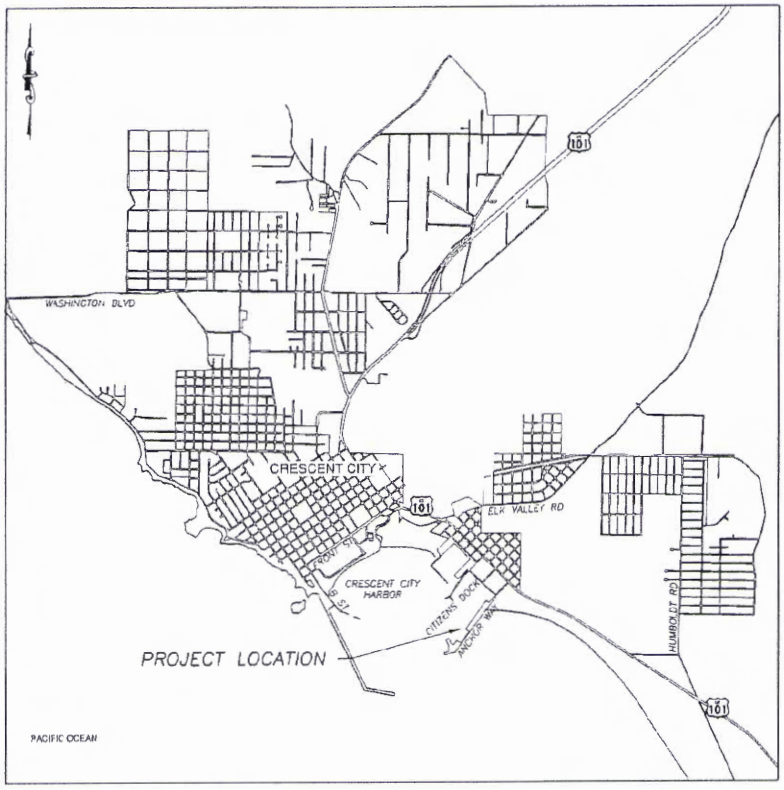
CRESCENT CITY HARBOR DISTRICT

LOCATION MAP

STATE MAP
NTS



COUNTY MAP
NTS



CITY MAP
NTS

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EXHIBIT NO. 2

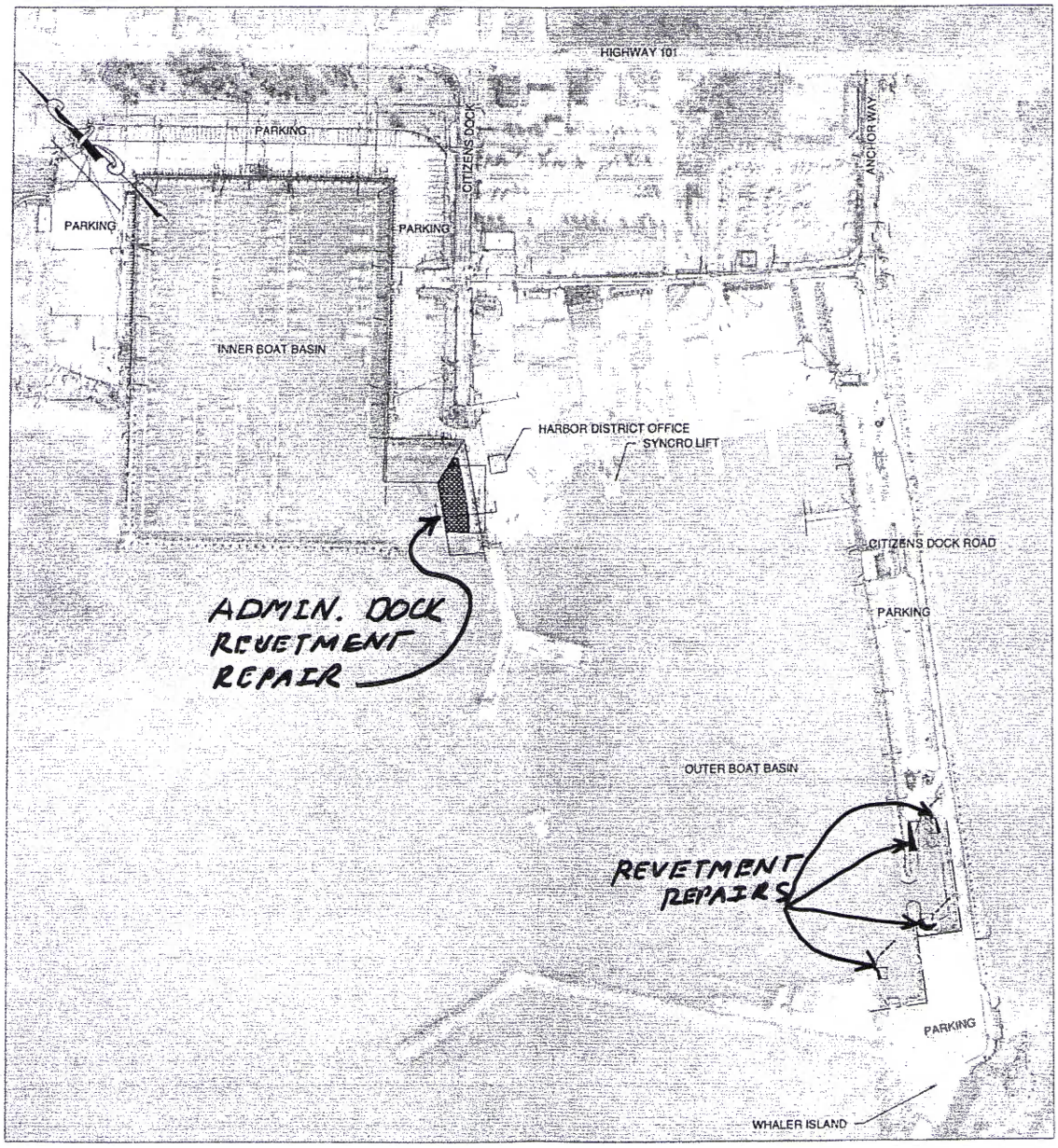
APPLICATION NO.

1-12-004

CRESCENT CITY HARBOR DISTRICT

VICINITY MAP

NG ants	CRESCENT CITY HARBOR DISTRICT CRESCENT CITY, CA			CDP APPLICATION OUTER BOAT BASIN PROJECTS
	ONE INCH NTS	01/30/12	JN:4135	FIGURE 1: VICINITY MAP



SITE MAP
1" = 250'

EXHIBIT NO. 3

APPLICATION NO.

1-12-004

CRESCENT CITY HARBOR DISTRICT

SITE MAP

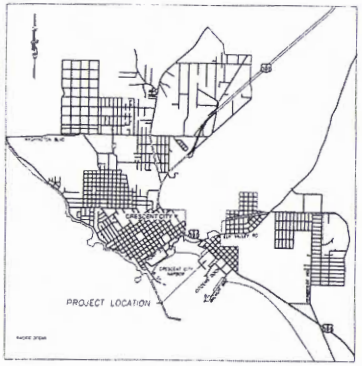
CRESCENT CITY HARBOR DISTRICT

ADMINISTRATION DOCK AREA AND WHALER ISLAND RSP REPAIRS AND OUTER BOAT BASIN DREDGING

CRESCENT CITY, CA

STATE MAP
NTS

COUNTY MAP
NTS



CITY MAP
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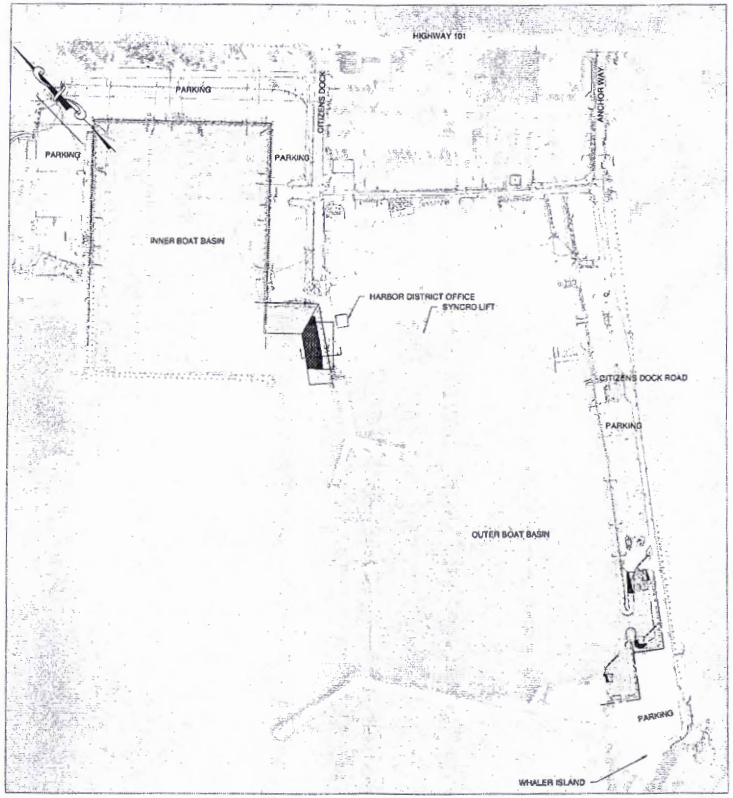

SITE MAP
1"=250'

SHEET INDEX

COVER SHEET	1
ADMIN DOCK RSP REPAIR & SECTION	2
WHALER ISLAND RSP REPAIR & SECTION	3-4
OBB DREDGING	5

EXHIBIT NO. 4

APPLICATION NO.

1-12-004

CRESCENT CITY HARBOR DISTRICT

PROJECT PLANS (1 of 5)

COASTAL DEVELOPMENT PERMIT APPLICATION FIGURES

PRELIMINARY

STOVER ENGINEERING
Civil Engineers and Consultants
PO BOX 783 - 711 H STREET
CRESCENT CITY, CA 95531 - 707-465-6742

CRESCENT CITY HARBOR DISTRICT
HARBOR AND BASIN RECONSTRUCTION
CRESCENT CITY, CA

COVER SHEET

JOB NO. 4134
SCALE: AS SHOWN
DATE: 01/25/12
SHEET 1 OF 5

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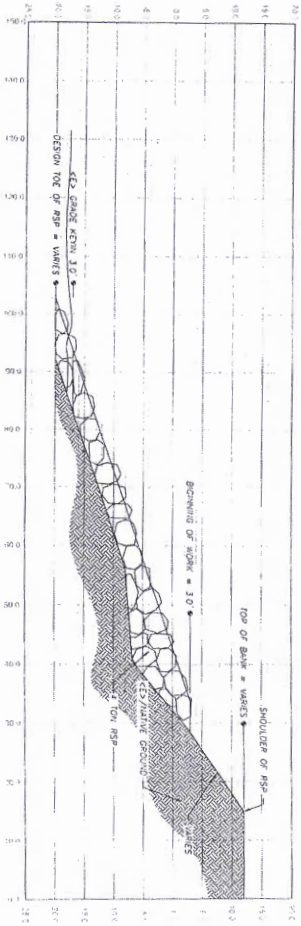

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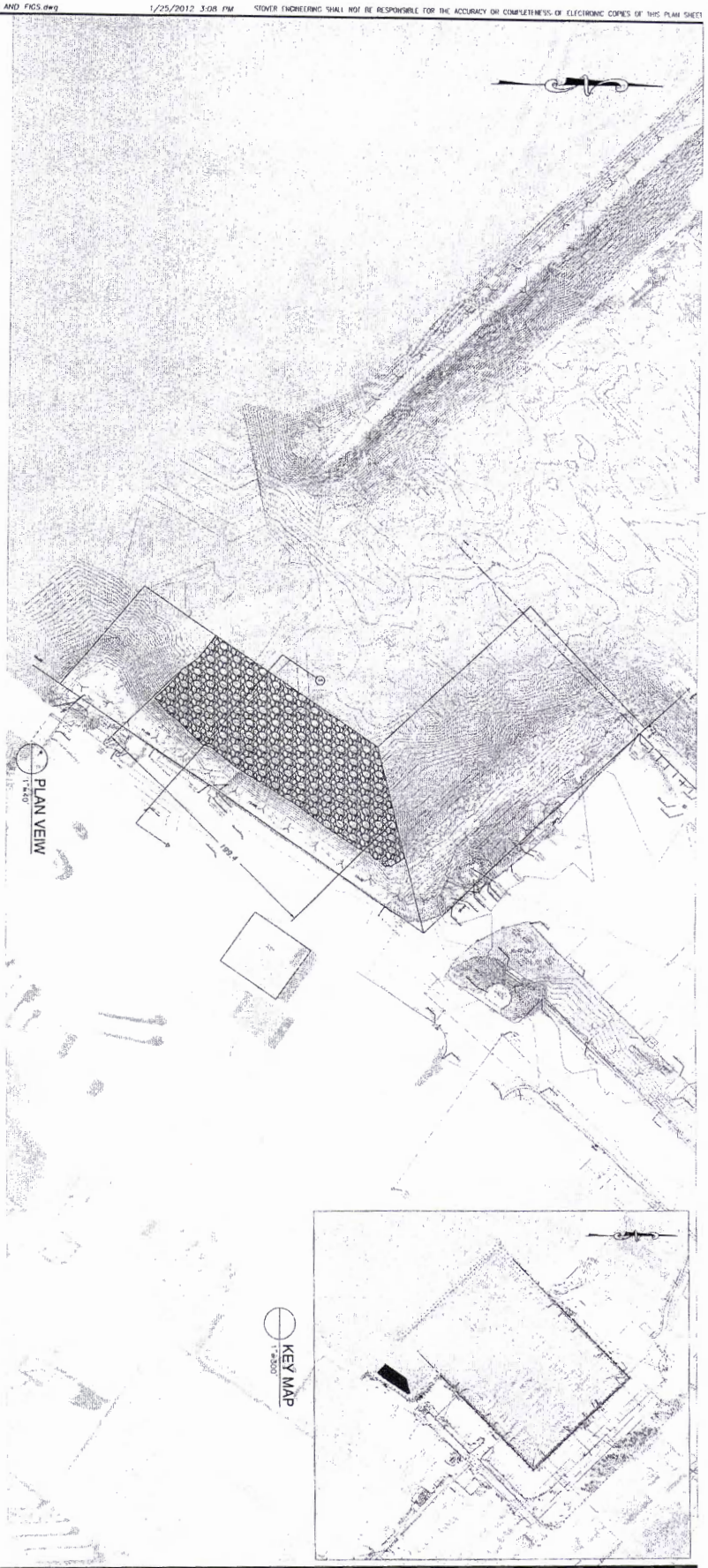

1 PLAN VIEW
1"=40'

2 KEY MAP
1"=300'

COASTAL DEVELOPMENT PERMIT APPLICATION FIGURES

SHEET 2 OF 5

JOB NO. 4134
SCALE: AS SHOWN
DATE: 01/24/2012

CRESCENT CITY HARBOR DISTRICT
HARBOR AND BASIN RECONSTRUCTION
CRESCENT CITY, CA

ADMIN DOCK RSP REPAIR & SECTION

STOVER ENGINEERING
Civil Engineers and Consultants
PO BOX 783 - 711 H STREET
CRESCENT CITY, CA 95531 - 707-465-6742

PRELIMINARY

No.	Date	Revision	Aprvd.
1	07/25/11	FURI REVISION SET OF 06/02/11	

DRAWING INFO: DESIGNED BY: JDO DRAWN BY: CAT CHECKED BY: WLS

0 1" BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES IF DISTANCE VARIES ACCORDINGLY

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COASTAL DEVELOPMENT PERMIT APPLICATION FIGURES

CRESCENT CITY HARBOR DISTRICT
HARBOR AND BASIN RECONSTRUCTION
CRESCENT CITY, CA

WHALER ISLAND RSP REPAIR & SECTION

STOVER ENGINEERING
Civil Engineers and Consultants
PO BOX 783 - 711 H STREET
CRESCENT CITY, CA 95531 - 707-465-6742

PRELIMINARY

No.	Date	Revision	Aprvd.
1	07/25/11	FULL REVISION SET OF 06/02/11	

DRAWING INFO: DESIGNED BY: JDO DRAWN BY: CAT CHECKED BY: RLS

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JOB NO. 4134
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DATE: 01/25/2012
SHEET 3 OF 5

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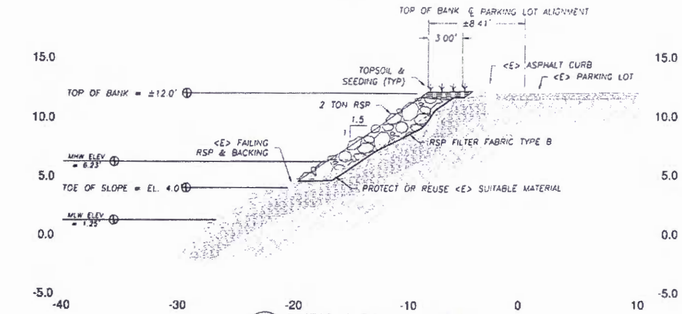
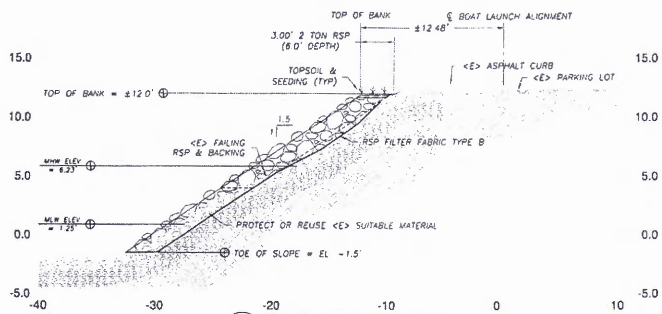
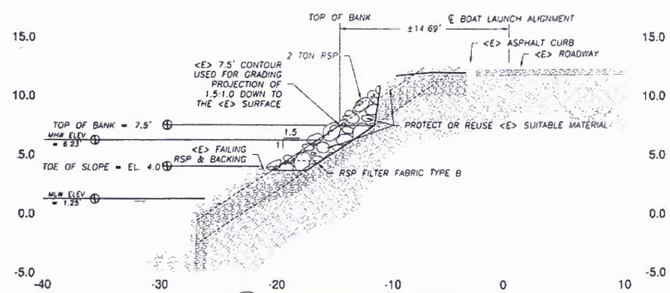


1/3 TYPICAL RSP SECTION
PARKING LOT ALIGNMENT - STA: 2+82 TO 3+90



2/3 TYPICAL RSP SECTION
BOAT LAUNCH ALIGNMENT - STA: 0+50 TO 2+10.5



3/3 TYPICAL RSP SECTION
BOAT LAUNCH ALIGNMENT - STA: 4+40 TO 5+22

COASTAL DEVELOPMENT PERMIT APPLICATION FIGURES

No.	Date	Revision	Apr'vd
1	07/25/11	FULL REVISION SET OF 06/07/11	

DRAWING INFO: DESIGNED BY: JDO DRAWN BY: CAT CHECKED BY: WLS
1 BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES IF DISTANCE VARIES ACCORDINGLY

PRELIMINARY
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CRESCENT CITY HARBOR DISTRICT
HARBOR AND BASIN RECONSTRUCTION
CRESCENT CITY, CA

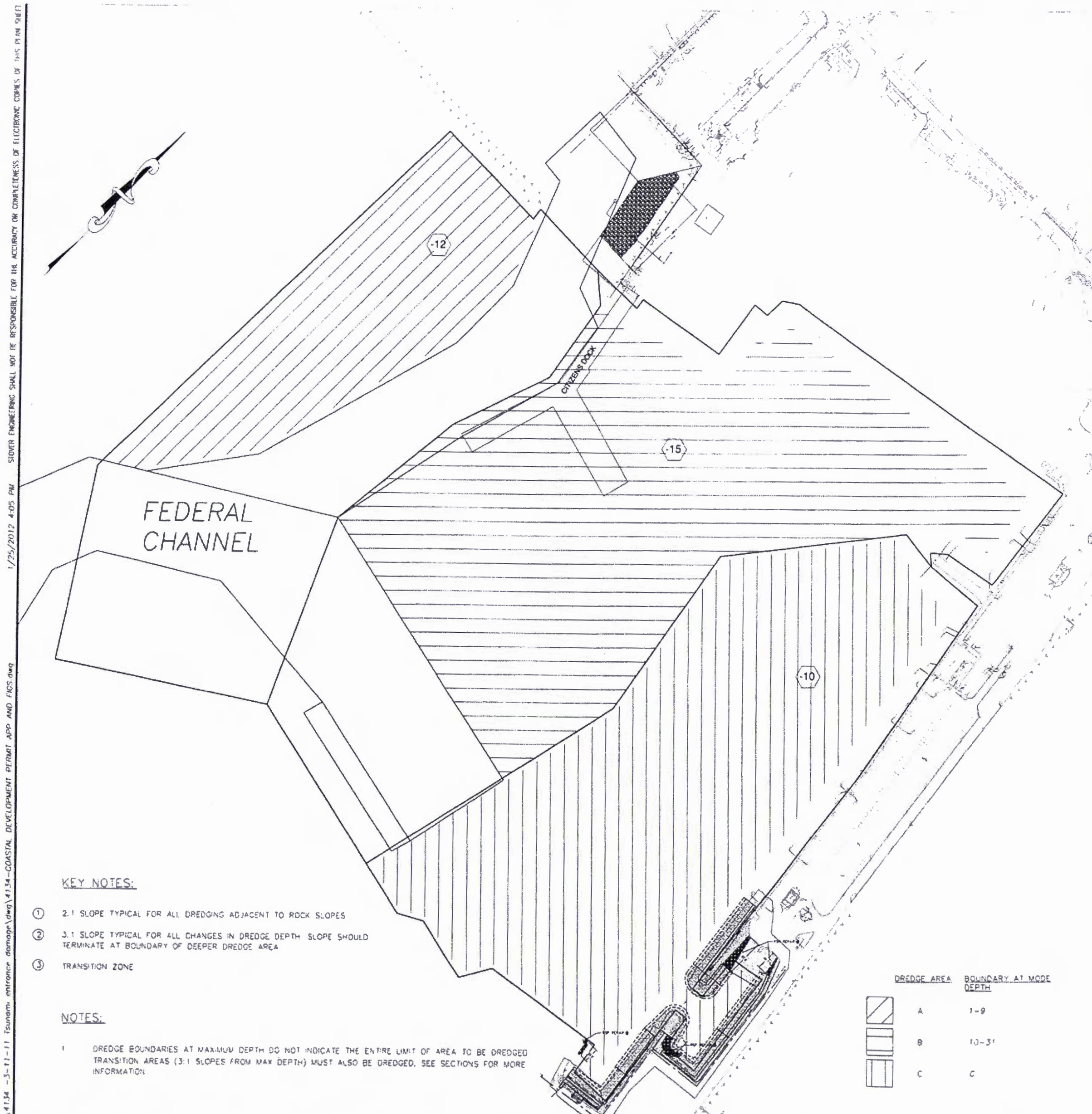
WHALER ISLAND RSP REPAIR & SECTION

JOB NO. 4134
SCALE: 1"=5' 1"=5'
DATE: 01/25/2012
SHEET 4 OF 5

S:\4134 -3-11-11 Tsunami entrance damage\dwg\4134-COASTAL DEVELOPMENT PERMIT APP AND FIGS.dwg 1/25/2012 3:46 PM STOVER ENGINEERING SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET

4 of 5

S:\4134 -3-11-11 Tsunami entrance damage\dwg\4134-COASTAL DEVELOPMENT PERMIT APP AND FIGS.dwg 1/25/2012 4:05 PM STOVER ENGINEERING SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET



KEY NOTES:

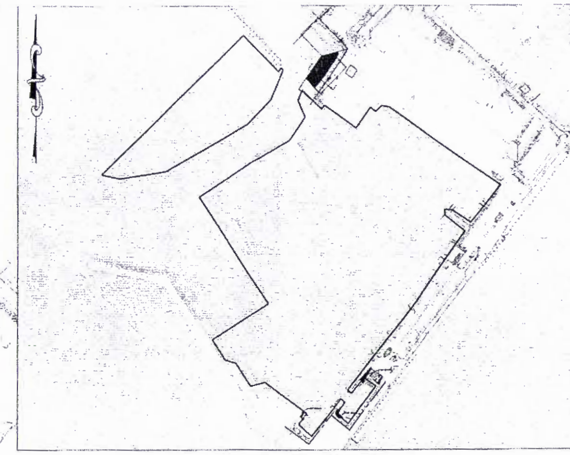
① 2:1 SLOPE TYPICAL FOR ALL DREDGING ADJACENT TO ROCK SLOPES

② 3:1 SLOPE TYPICAL FOR ALL CHANGES IN DREDGE DEPTH. SLOPE SHOULD TERMINATE AT BOUNDARY OF DEEPER DREDGE AREA

③ TRANSITION ZONE

NOTES:

1 DREDGE BOUNDARIES AT MAXIMUM DEPTH DO NOT INDICATE THE ENTIRE LIMIT OF AREA TO BE DREDGED. TRANSITION AREAS (3:1 SLOPES FROM MAX DEPTH) MUST ALSO BE DREDGED. SEE SECTIONS FOR MORE INFORMATION



KEY MAP
NTS

Number	Northing	Easting	Elevation	Raw Desc	Full Desc
1	2527155.351	5965312.239	0	PARCEL 1	PARCEL 1
2	2526950.177	5965510.345	0	PARCEL 1	PARCEL 1
3	2526968.81	5965523.615	0	PARCEL 1	PARCEL 1
4	2526818.959	5965459.228	0	PARCEL 1	PARCEL 1
5	2526690.171	5965335.32	0	PARCEL 1	PARCEL 1
6	2526437.528	5964893.706	0	PARCEL 1	PARCEL 1
7	2526393.284	5964617.155	0	PARCEL 1	PARCEL 1
8	2526410.83	5964541.155	0	PARCEL 1	PARCEL 1
9	2526769.918	5965664.256	0	PARCEL 2	PARCEL 2
10	2526686.6	5965755.951	0	PARCEL 2	PARCEL 2
11	2526712.238	5965774.882	0	PARCEL 2	PARCEL 2
12	2526590.008	5965950.495	0	PARCEL 2	PARCEL 2
13	2526697.817	5966028.583	0	PARCEL 2	PARCEL 2
14	2526679.66	5966049.9	0	PARCEL 2	PARCEL 2
15	2526726.506	5966097.759	0	PARCEL 2	PARCEL 2
16	2526726.098	5966099.928	0	PARCEL 2	PARCEL 2
17	2526338.353	5966649.086	0	PARCEL 2	PARCEL 2
18	2526215.347	5966554.162	0	PARCEL 2	PARCEL 2
19	2526264.449	5966483.417	0	PARCEL 2	PARCEL 2
20	2526272.418	5966369.695	0	PARCEL 2	PARCEL 2
21	2526257.689	5966370.539	0	PARCEL 2	PARCEL 2
22	2526207.123	5965946.91	0	PARCEL 2	PARCEL 2
23	2525863.651	5965704.395	0	PARCEL 2	PARCEL 2
24	2525704.155	5965453.782	0	PARCEL 2	PARCEL 2
25	2526287.4	5965075.79	0	PARCEL 2	PARCEL 2
26	2526471.9	5965354.54	0	PARCEL 2	PARCEL 2
27	2526594.9	5965569.54	0	PARCEL 2	PARCEL 2
28	2526720.9	5965658.54	0	PARCEL 2	PARCEL 2
29	2526745.337	5965647.096	0	PARCEL 2	PARCEL 2
30	2526248.156	5966366.612	0	PARCEL 3	PARCEL 3
31	2526241.688	5966371.742	0	PARCEL 3	PARCEL 3
32	2526160.216	5966377.168	0	PARCEL 3	PARCEL 3
33	2526088.228	5966462.813	0	PARCEL 3	PARCEL 3
34	2525731.411	5966215.155	0	PARCEL 3	PARCEL 3
35	2525258.625	5965842.634	0	PARCEL 3	PARCEL 3
36	2525203.468	5965912.636	0	PARCEL 3	PARCEL 3
37	2525288.135	5965982.508	0	PARCEL 3	PARCEL 3
38	2525252.352	5966033.44	0	PARCEL 3	PARCEL 3
39	2525063.574	5965890.615	0	PARCEL 3	PARCEL 3
40	2525105.285	5965839.821	0	PARCEL 3	PARCEL 3
41	2525168.944	5965886.113	0	PARCEL 3	PARCEL 3
42	2525224.648	5965815.864	0	PARCEL 3	PARCEL 3
43	2525024.233	5965657.951	0	PARCEL 3	PARCEL 3
44	2525047.219	5965631.907	0	PARCEL 3	PARCEL 3
45	2525108.672	5965677.6	0	PARCEL 3	PARCEL 3
46	2525285.684	5965435.382	0	PARCEL 3	PARCEL 3
47	2525265.404	5965362.304	0	PARCEL 3	PARCEL 3
48	2525388.782	5965283.783	0	PARCEL 3	PARCEL 3
49	2525405.587	5965224.428	0	PARCEL 3	PARCEL 3
50	2525506.605	5965160.138	0	PARCEL 3	PARCEL 3
51	2525857.011	5965710.724	0	PARCEL 3	PARCEL 3
52	2526198.661	5965951.953	0	PARCEL 3	PARCEL 3

COASTAL DEVELOPMENT PERMIT
APPLICATION FIGURES

No.	Date	Revision	Apv'd
1	07/25/11	FULL REVISION SET OF 06/02/11	

DRAWING: JMO. DESIGNED BY: JDO DRAWN BY: CAT CHECKED BY: WES

0 — 1 BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES IF DISTANCE VARIES ACCORDINGLY

PRELIMINARY

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CRESCENT CITY HARBOR DISTRICT
HARBOR AND BASIN RECONSTRUCTION
CRESCENT CITY, CA

OBB DREDGING

JOB NO. 4134
SCALE: 1"=120'
DATE: 01/25/2012
SHEET 5 OF 5

5 of 5

Application for Coastal Development Permit

Outer Basin Dredging and RSP Spot Repairs

EXHIBIT NO. 5
APPLICATION NO.
1-12-004
CRESCENT CITY HARBOR DISTRICT
PROJECT DESCRIPTION
(1 of 3)

Item 2. Description:

On March 11, 2011, the Crescent City Harbor experienced extensive damage to the Harbor as a result of the tsunami generated by the Tohoku Earthquake (9.0). On March18, 2011, the Governor of California responded to the extensive tsunami damage by declaring a state of emergency for Del Norte County and other affected coastal counties. On April 13, 2011, the President declared a Federal Disaster.

While the Harbor was damaged but still functional as a result of the 2006 tsunami, the March 2011 tsunami generated a series of significant surges that caused major damage to the inner boat basin. The Inner Boat Basin became non-functional. An emergency permit was requested from and granted by the Coastal Commission (Emergency Permit No. 1-11-032-G) in order to undertake timely restoration of the inner boat basin prior to the onset of winter storms. The permanent repairs to the Inner Boat Basin as a result of the damage caused by the March 2011 tsunami and the extent of the damage over and beyond the 2006 tsunami are being addressed as a supplement to the existing CDP (No. 1-10-035).

The outer boat basin, the recreational marina, commercial fish docks area, and the recreational boat launch area, also suffered damage as a result of the March 11, 2011 tsunami. The purpose of this Coastal Development Application will be to restore the outer boat basin to its pre-March 2011 capacity and function. The four elements of this CDP application are to address dredging of the outer basin, rock slope protection (RSP) spot repairs, and restoration of original RSP lines and grades at the Administrative Dock.

Dredging (FEMA Project Worksheet HD05)

The tsunami was a series of waves increasing in intensity from 6 a.m., peaking at 11:30 a.m. on March 11, 2011, then decreasing in intensity but continuing for over a 48 hour period within the harbor area. The rapid fluctuation and high velocity of the wave action and the water level was sufficient to suspend sand and carry the suspended sand into the outer boat basin and harbor area. As the water level reach equilibrium and the water movement slowed, sedimentation and shoaling occurred. These sedimentations have decreased the operation depth necessary for safe navigation in the harbor. Normal operational depths are as shown on sheet 5 of 5 and can be summarized as -12 feet adjacent to the federal entrance channel, -15 feet in the vicinity of the commercial fleet hoist and operational docks, and -10 feet in the recreational marina. The sand was not deposited uniformly throughout the Outer Harbor. Along the federal channel shoaling is visible at low tide, the commercial operational area has depths as shallow as 3.2 feet and the recreational marina has depths as shallow as 4 feet.

As a result of the 2011 tsunami event, it is necessary to remove 251,160 cubic yards (CY) of dredge materials from an area of approximately 58.4 acres of the recreational marina area, the

commercial/industrial docks area, and the area adjoining the Federal Channel of the outer boat basin. The dredging operation will re-establish the operating depths as identified on Sheet 5 of 5. The disposal of dredged material will be at the Humboldt Open Ocean Dredged Site (HOODS), located offshore from Eureka, California. The expected method of dredging will use barges to transport the material to HOODS; therefore, suction dredging is not anticipated. The expected method of removal is via a clamshell or large excavator, similar to the previous dredging within the Inner Boat Basin. A floating boom will be placed around the perimeter of the area being dredged with a silt curtain around the immediate area of activity. The barge will have a screen (commonly referred to as a "grizzly") with approximately 1 foot by 1 foot grids to separate out the larger pieces of debris. Screened materials brought to the surface will be transported for disposal through the Del Norte Solid Waste transfer station.

Replace Rock Slope Protection (RSP) (FEMA Project Worksheet HD02)

In general terms, the high velocity wave action of the tsunami damaged the existing rock slope protection for the project site but not to the extent of the damage that occurred within the Inner Boat Basin. While the Inner Boat Basin had its RSP damaged throughout the basin, the Outer Harbor had damage to the RSP limited to four revetment areas in proximity to the public recreational boat launch and on the inside of the breakwater on the extension of Anchor Way to Whaler Island. Sheet 3 identifies the four RSP areas that require repair. The amounts of RSP total for all five sites is approximately 3,731 CY of RSP requiring approximately 4,200 CY of excavation of existing RSP to reassemble the RSP properly. The work at the Administrative Dock will require 3,300 CY of RSP and the four sites at the boat launch will require 431 CY of RSP.

Public access will be interrupted during the actual reconstruction; however, any such interruptions will be temporary and on a limited basis. The boat launch will remain operational during the RSP repair.

Administrative Dock RSP (FEMA Project Worksheet HD01)

At the Administrative Dock which has existing RSP in place, in lieu of removing the existing undamaged RSP and installing a toe trench, the Harbor is proposing to place large stone (app. 4 ton in size) on a 3:1 slope starting at elevation +3 and extending down to the toe at -17 or -18, plus or minus, depending upon the actual scour depth from the tsunami. Some limited excavation will occur in order to seat the large stone properly. Any excavated sand material will be disposed of as part of the overall dredging of the outer basin.

(Repairs to Citizens Dock as outlined in HD01 are not proposed as part of this CDP application. The extent of any damage to Citizens Dock is unknown at this time and is expected to take some time to determine.)

Item 5

There are two pending permits with the U.S. Army Corps of Engineers. A permit has been filed at the Eureka office for the RSP work. A second permit has been filed with Debra O'Leary at the San Francisco office of ACOE for the dredging activity. An application for Water Quality

Certification has been filed with the Santa Rosa office of the North Coast Water Quality Control Board. The contact person at Water Quality is Dean Prat.

Item 9

a. The RSP spot repairs are in proximity to Whaler Island, where existing studies have identified some plant species of concern. These plants are located on the relatively undisturbed portion of the island. The RSP spot repairs do not involve the undisturbed portion of Whaler Island and only one of the spot repairs is located on what could be called a portion of the original footprint of Whaler Island.
b. The Inner Boat Basin project necessitated a consultation with NOAA Fisheries. The previous consultation examined the entire harbor area. The application of that consultation on the proposed project is under consideration by NOAA Fisheries.

Items Attached

1. Assessor's Parcel Map for 117-020-16
2. Vicinity Map
3. Preliminary Plans by Stover Engineering, sheets 1 through 5 dated 01/25/12
4. Permit applications to ACOE (two) and the Water Quality Control Board
5. Appendix B
6. Copy of Notice of Pending Permit
7. Copies of FEMA Project Worksheets HD01, HD02, and HD05
8. Appendix C - Property Owners and Occupants Listing

Kyle S. Wear
Botanical Consultant

3484 Zelia Court, Arcata, CA 95521
Phone: (707) 826-1398
Mobile: (707) 601-1725
Email: kyle_wear@suddenlink.net

Richard Young
Crescent City Harbor District
101 Citizens Dock Road
Crescent City, CA 95531

RE: Preliminary Eelgrass Surveys for Proposed Rock Slope Protection Areas

Dear Mr. Young,

On March 13, 2012 Kyle Wear and Frank Galea conducted dive surveys for eelgrass (*Zostera marina*) at the request of the Crescent City Harbor District within and adjacent to all areas within the harbor where damage to rock slope protection (RSP) from the March 11, 2011 tsunami is proposed to be repaired.

The survey was conducted outside of the growing season for eelgrass in northern California (May-September) in order for Harbor District permitting deadlines to be met and in response to a March 8, 2012 letter submitted by the Department of Fish and Game alerting the Coastal Commission, the North Coast Regional Water Quality Control Board, and the Harbor District of the potential for eelgrass to occur within pending project areas of the harbor.

A thorough pre-construction survey of the project area will be conducted at minus tides during the growing season in May. This will include all of the RSP repair sites and all areas within and adjacent to proposed dredging in the harbor.

Methods

The survey involved numerous free dives in all shallow water (less than 15 feet) within and adjacent to the RSP areas. When eelgrass beds were encountered they were mapped using a combination of GPS and hand mapping. The data was overlaid on the 2010 NAIP image for Del Norte County using GIS software. Due to windy conditions and poor visibility, it was not feasible to GPS the edges of the beds or determine the cover or density of turions. The survey was conducted between 9 am and 12 pm. The tides on March 13 were:

3:34 am High 7.5
10:35 am Low -0.2
5:05 pm High 5.3
10:15 pm Low 2.6

EXHIBIT NO. **6**
APPLICATION NO.
1-12-004
CRESCENT CITY HARBOR DISTRICT
PRELIMINARY EELGRASS SURVEY (1 of 4)

Results and Discussion

Two eelgrass beds were located during the survey and are shown on the attached maps. The bed located southwest of the entrance to the public boat launch area (ZOMA-1) is approximately 289 square meters. The bed located at the entrance of the inner boat basin

(ZOMA-2) is approximately 241 square meters. The beds were in approximately one to five feet of water at the time of the survey. With the exception of a few turions along the southwestern edge of ZOMA-1, the eelgrass was not visible from the surface. Eelgrass was not encountered rooted in the public boat launch area. Several pieces of fresh eelgrass vegetative material (rhizomes and leaves) were found in debris left by high tide on the boat ramp, but none was observed rooted in the bottom of the boat launch area. This material was possibly uprooted from elsewhere in the harbor by high winds that occurred on March 12 or during another recent storm.

ZOMA-2 at the entrance to the inner boat basin could be adversely impacted by the proposed project. A portion of ZOMA-1 may also be impacted as the bed generally extends to the toe of the existing breakwater adjacent to the most of the RSP area. Any disturbance from construction beyond the existing toe of the breakwater would be within the bed.

Recommendations

Both eelgrass beds shall be re-evaluated during minus tides in May 2012 prior to construction activities. The beds will be mapped with GPS and measurements of turion density and cover will be made.

The areas adjacent to all of the RSP repair sites shall be re-surveyed in May 2012 in addition to all areas of the outer harbor within and adjacent to any dredging. Prior to these surveys, detailed surveys methods shall be provided to the California Department of Fish and Game for review.

If ZOMA-1, ZOMA-2, or any additional eelgrass beds located during the May survey will be impacted by the project, a mitigation and monitoring plan shall be developed and submitted to the California Department of Fish and Game for approval prior to any project activities that could adversely affect the eelgrass.

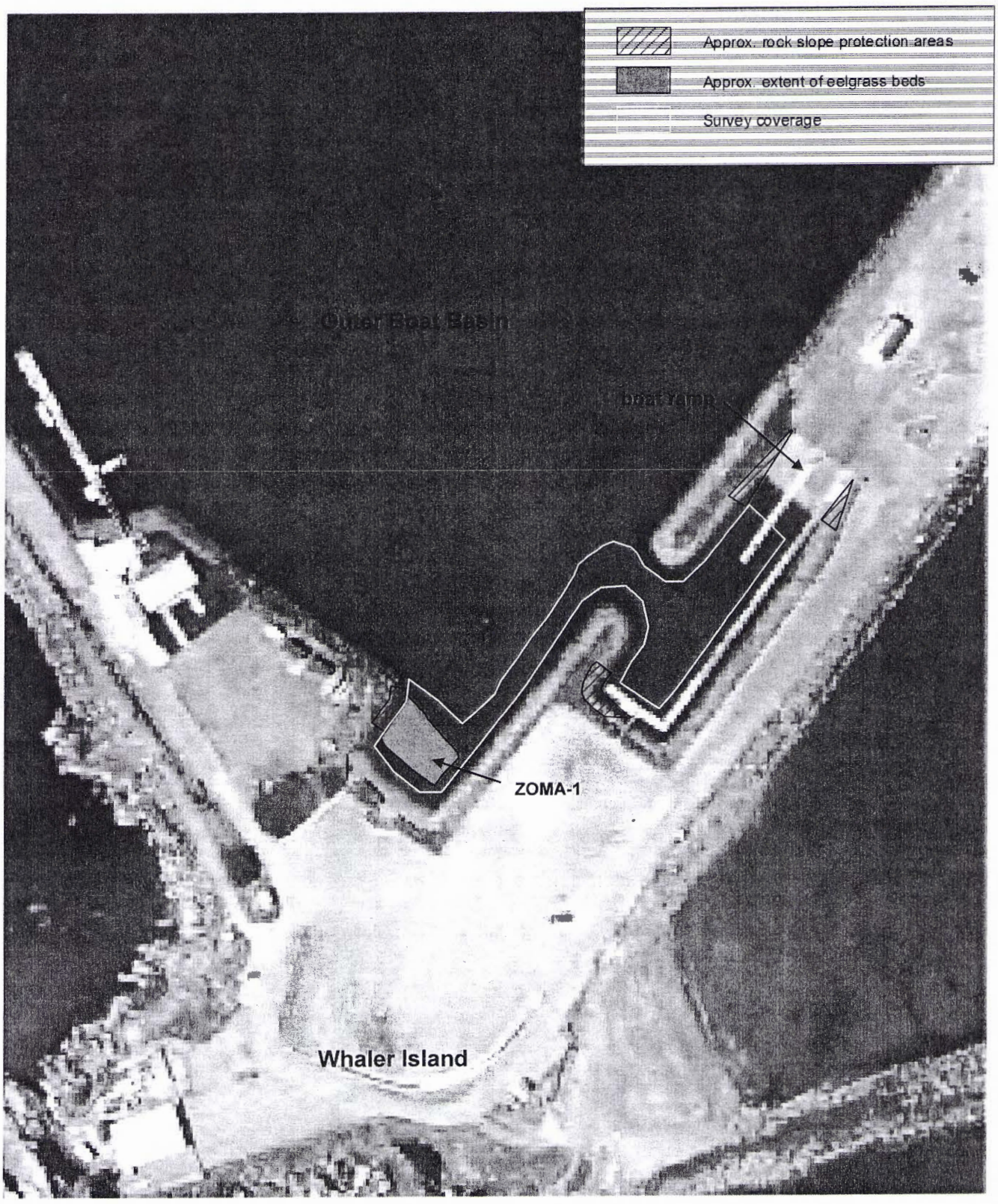
Sincerely,

Kyle Wear

Kyle Wear
Botanical Consultant

Cc:
Department of Fish and Game (rgarwood@dfg.ca.gov)
Coast Commission (bmerrill@coastal.ca.gov and jdixon@coastal.ca.gov)
NOAA (korie.schaeffer@noaa.gov)
Water Board (dprat@waterboards.ca.gov)
Frank Galea (frankgalea@charter.net)

Attachments:
Maps of eelgrass beds located during the survey

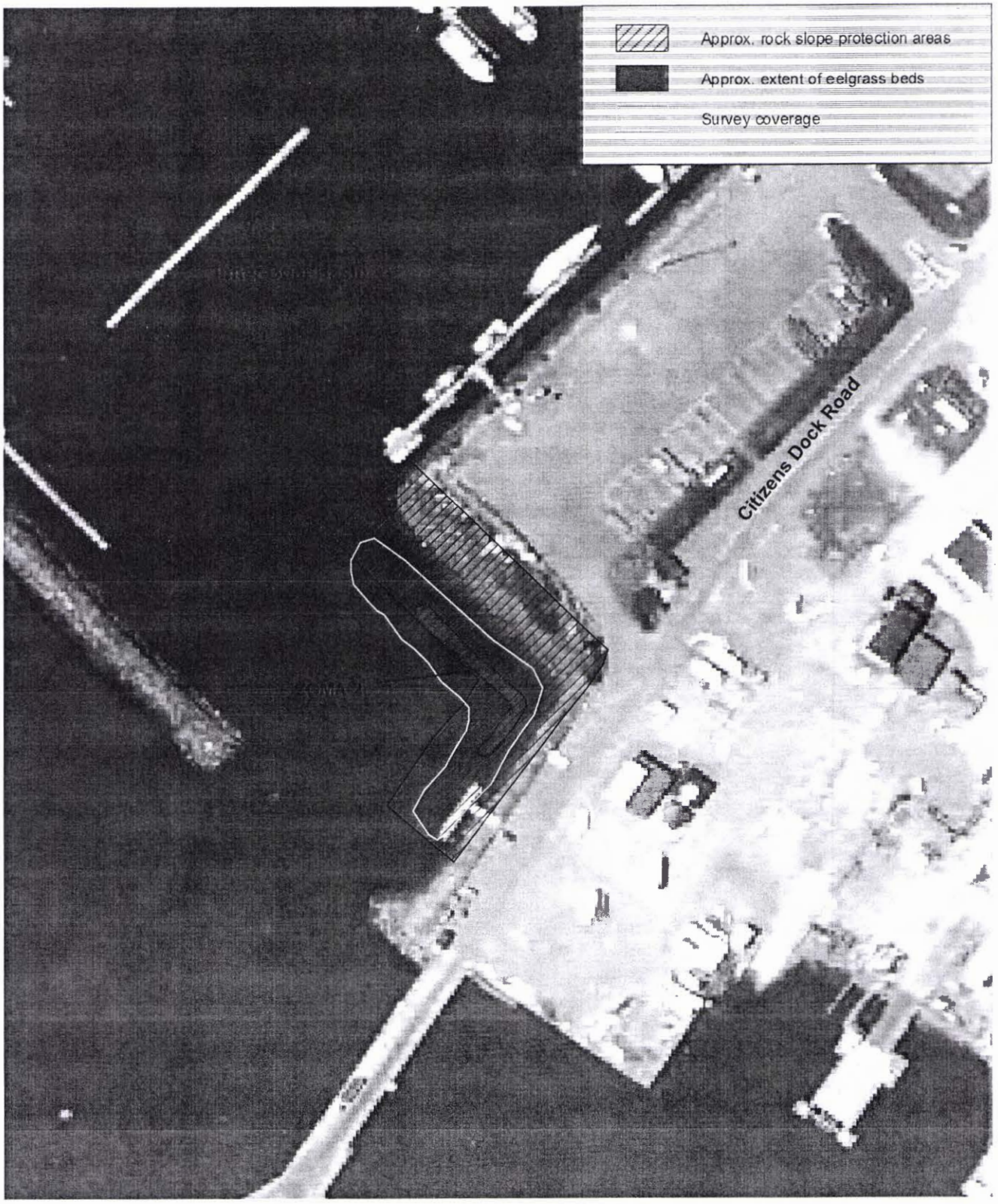


Map 1. Location of Eelgrass Beds located within and adjacent to proposed RSP areas on March 13, 2011.

Crescent City Harbor

N
W E
S

30 0 30 Meters



Map 2. Location of Eelgrass Beds located within and adjacent to proposed RSP areas on March 13, 2011.

Crescent City Harbor

N
W E
S

30 0 30 Meters