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STAFF REPORT: REGULAR CALENDAR

Application No.:	**1-19-0407**
Applicant:	**Humboldt Bay Harbor, Recreation & Conservation District**
Location:	At two locations on Humboldt Bay: (1) Fields Landing Boat Yard on the east side of the bay off of Depot Road in Fields Landing, and (2) Redwood Marine Terminal II on the west side of the bay south of Samoa off of Vance Avenue, Humboldt County
Project Description:	(1) Construct two temporary dewatering basins (one at each location) to dewater dredged material from planned routine maintenance dredging operations at Fields Landing and Woodley Island Marina for the potential beneficial reuse of suitable dredged sediment at an approved location; (2) extract seawater from Humboldt Bay for re-slurrying of dredged material within the hopper barge to facilitate its transport to the temporary dewatering basins at each site; and (3) temporarily place piping infrastructure at each site between the dredge vessel(s) and the dewatering sites and between the dewatering sites and existing storm drain inlets to transport slurry material and ultimately discharge the dewatering effluent back into Humboldt Bay.
Staff Recommendation:	Approval with conditions.

SUMMARY OF STAFF RECOMMENDATION

The scope of this CDP application concerns activities related to the reuse of dredged material from planned routine maintenance dredging activities that are exempt from the need for CDP authorization pursuant to Coastal Act section 30610(d) and the Commission's regulations (Title 14 CCR § 13252). The Humboldt Bay Harbor, Recreation & Conservation District (Harbor District) plans to dredge Woodley Island Marina and the Fields Landing Boat Yard Travel Lift (haul out ramp) on Humboldt Bay. Rather than dispose of the dredged material (which is not suitable for beach nourishment due to its fine grain size and texture) at the approved ocean disposal site located three miles offshore from Humboldt Bay, the Harbor District proposes to dewater the materials at two paved upland sites on the bay for the potential beneficial reuse of the dewatered sediments in an approved restoration project area in Humboldt Bay called White Slough Tidal Marsh Restoration. The Commission's federal consistency unit reviewed and approved the White Slough project in 2015, including the placement of dredged materials and other sediments at the restoration site.

To facilitate the beneficial reuse of dredged material, after dredging, when the material is in the hopper barge, it must be reslurried before it can be transported to upland sites adjacent to the bay for dewatering. Therefore, this CDP application considers the Harbor District's proposed extraction of seawater from the bay for the reslurrying process, the transport of slurry material through temporary pipelines to two dewatering sites on the bay, and the proposed dewatering and discharge activities. Temporary dewatering basins would be constructed using k-rails or similar structures supporting an impermeable liner. The edges of the liner would be held in place with soft weights such as sandbags. A controllable opening or weir would be constructed on one side of the basin. A temporary piping system would be installed extending from dewatering basins to existing storm drains that drain to Humboldt Bay. The maximum area of the temporary dewatering basins would be approximately 60,000 square feet at Redwood Marine Terminal II and 40,000 square feet at the Fields Landing Boat Yard.

The primary issues raised by this application include the project's consistency with the Coastal Act's policies requiring protection of coastal waters and marine resources and the priority of coastal-dependent development. The Harbor District has proposed various measures to minimize the potential for fish impingement and entrainment impacts related to proposed reslurrying activities. These include (1) restricting the work window to the period of July 1 to October 15 to minimize effects to listed species; (2) designing the intake device to meet certain flow rate and screening standards for fish protection, and (3) implementing various operational best management practices (BMPs) that will further protect listed fish species and water quality. Staff recommends Special Conditions 2 and 3 to require that the Harbor District undertake the project in accordance with all proposed protective measures and BMPs described in the project description to protect marine resources, biological productivity, and the quality of coastal waters consistent with Coastal Act sections 30230 and 30231. In addition, staff recommends Special Condition 4 to require the applicant to submit a dredged material disposal plan for the Executive Director's review and approval. This condition will ensure that the handling and disposal of dredged material is carried out in a manner that will avoid significant disruption to marine habitats, consistent with Section 30233(b) of the Coastal Act.

Staff believes that with the recommended conditions, the proposed dewatering of dredged material project is consistent with all applicable Chapter 3 policies of the Coastal Act.

The motion to adopt the staff recommendation of approval with special conditions is found on Page 5.

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APPENDIX

EXHIBITS

I. MOTION AND RESOLUTION

The staff recommends that the Commission adopt the following resolution:

Motion:

> *I move that the Commission approve coastal development permit 1-19-0407 pursuant to the staff recommendation.*

Staff recommends a **YES** vote on the foregoing motion. 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:

> *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 Ac. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.*

II. STANDARD CONDITIONS

This permit is granted subject to the following 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 amount 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.

III. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Corps of Engineers Approval.** PRIOR TO COMMENCEMENT OF DEVELOPMENT AUTHORIZED UNDER CDP No. 1-19-0407, the Permittee shall provide to the Executive Director a copy of a permit issued by U.S. Army Corps of Engineers for the intake and discharge facilities, or evidence that no permit is required. The Permittee shall inform the Executive Director of any changes to the project required by the Corps. Such changes shall not be incorporated into the project until the Permittee obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

2. **Operational Best Management Practices**. The Harbor District shall implement the following proposed protection measures and operational BMPs to protect the water quality and aquatic habitat of Humboldt Bay:
    (i) Reslurrying, dewatering, and associated decant discharge activities shall only be performed between July 1 and October 15 unless the Executive Director approves minor extensions to the work window for good cause;
    (ii) Vegetable-based or biodegradable hydraulic fluids shall be used, if possible, in equipment operating over water or without secondary containment;
    (iii) Equipment shall be inspected and serviced prior to mobilization. Routine inspections shall occur throughout the project and leaks shall be repaired immediately when discovered;
    (iv) Spill kits equipped with enough material to provide preliminary containment for a volume of material that can reasonably be expected to spill shall be maintained on the barge and the dock. Spill containment trays shall be placed around all equipment on the barge deck;
    (v) Temporary dewatering basins shall be constructed with an impermeable liner, and the perimeter of the liner shall be secured to minimize the potential for uncontrolled discharge of polluted dredge slurry;
    (vi) Trash racks shall be placed at the outlet of pipes delivering dredge slurry from the hopper to dewatering basins to be captured, removed, and disposed of at an appropriate facility based on the type of recovered debris;
    (vii) All temporary pipes used to transport dredge slurry material between the hopper barge and dewatering basins and between basins and discharge points for decant effluent shall be welded together to avoid any risk of leaks;
    (viii) At the discharge sites, a liner and sandbags shall be used to direct flow to the bay and waddles shall be used for filtering out sediments;

(ix) Turbidity shall be monitored as proposed within 500 feet of discharge points to ensure that discharge water turbidity does not exceed bay water turbidity by more than 20%. Operations shall be adjusted as necessary to ensure allowed turbidity levels are maintained. At a minimum, turbidity shall be monitored (a) immediately before discharge begins; (b) every two hours during discharge; and (c) after any potential change to the discharge (e.g., addition of new dredged material to a dewatering unit or changed configuration of baffling); and

(x) If the dredged material is determined from test results to be incompatible with placement at White Slough as determined by the Regional Water Board, the material shall be disposed of at an approved location outside of the coastal zone or at a permitted site within the coastal zone authorized to receive the material.

3. Screened Intake System Design Standards and Procedures. The authorized seawater intake system shall be used in accordance with the design and specifications proposed under CDP Application No. 1-19-0407,which have been reviewed and approved by both the National Marine Fisheries Service (NMFS) and California Department of Fish and Wildlife (CDFW), including use of the following proposed standards and procedures to ensure the device is adequately designed for the protection of listed fish species in Humboldt Bay:

(i) Prior to use of the new screened intake device for pumping dredged material, the Harbor District shall conduct a water approach velocity test to confirm the calculated values are met. The test shall be conducted during work windows required by Special Condition 2 and will be conducted by taking water velocity measurements at multiple points on each side of the screen using a handheld water flow meter. Test results shall be submitted to the Executive Director for review and approval;

(ii) Round or square (measured diagonally) openings in intake screens shall not exceed 2.38 millimeters (mm) (3/32”);

(iii) Slotted openings in the screen shall not exceed 1.75mm (0.0689”);

(iv) Approach velocity shall not exceed 0.2 feet per second (fps) for self-cleaning screens or 0.05 fps for non-self-cleaning screens;

(v) Overall screen porosity shall be a minimum of 27%;

(vi) The pump that would be used would draw a maximum of 1,500 gallons per minute (gpm).

(vii) For a non-self-cleaning screen, the screened intake device shall be removed from the bay water and manually cleaned with brushes and/or water after every time that water is pumped to the hopper to ensure that the screen is operating as designed; and

(viii) The Harbor District shall provide monthly monitoring reports to the Executive Director that will include photos of the screen before and after cleaning and a description of any material on the screen after use. This information will confirm the screen is being cleaned and maintained as required to meet the required and verified approach velocities.

The Permittee shall maintain the required screen in operable condition throughout the life of the project.

4. Dredge Material Disposal Plan

(i) PRIOR TO COMMENCEMENT OF DEVELOPMENT AUTHORIZED BY COASTAL DEVELOPMENT PERMIT NO. 1-19-0407, the Permittee shall submit, for the review and written approval of the Executive Director, a plan for the disposal of dredge material in the event that said material will not be disposed of for beneficial reuse in an approved restoration project restoration area in Humboldt Bay called "White Slough Tidal Marsh Restoration." The plan shall identify a disposal site that is in an upland area where dredge materials may be lawfully disposed and describe the manner by which the material will be removed from the construction site.

(ii) The Permittee shall undertake development in accordance with the approved final Debris Removal Plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

5. Future Uses and Improvements. This approval is limited to the uses and development specifically permitted by Coastal Development Permit 1-19-0407. All development must occur in strict compliance with the proposal as set forth in the application, subject to any special conditions. Any deviation from the approved plans must be submitted for review by the Executive Director to determine whether an amendment to this coastal development permit is required. Any additional development, including, but not limited to maintaining temporary dewatering basins on site for longer than proposed under this application, additional episodes of reslurrying and dewatering operations beyond the initial pilot study authorized by this CDP, or repair or replacement of seawater intake and discharge facilities, will require an amendment to the permit or a new coastal development permit unless the Executive Director determines that no amendment or new coastal development permit is legally required.

IV. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares as follows:

A. PROJECT DESCRIPTION

The Humboldt Bay Harbor, Recreation & Conservation District (Harbor District) requests authorization to: (1) construct two temporary dewatering basins, one at Fields Landing Boat Yard and one at Redwood Marine Terminal II (RMT II), to dewater dredged material from planned maintenance dredging operations at Fields Landing and the Woodley Island Marina for the potential beneficial reuse of suitable dredged sediment at an approved location; (2) extract seawater from Humboldt Bay for re-slurrying of dredged material within the hopper barge to facilitate its transport to the temporary dewatering basins at each site; and (3) temporarily place piping infrastructure at each site between the dredge vessel(s) and the dewatering sites and between the dewatering sites and existing storm drain inlets to transport slurry material and ultimately discharge the dewatering effluent back into Humboldt Bay.

Purpose and Need/Background

In 2018, the Executive Director determined the routine maintenance dredging activities at Woodley Island Marina and the Fields Landing Boat Yard Travel Lift (haul out ramp) to be exempt from CDP requirements pursuant to Coastal Act section 30610(d) and the Commission's regulations (Title 14 CCR § 13252).[1] The exempt activities involve routine maintenance dredging of less than 100,000 cubic yards of material using an excavator and/or crane with a closed clamshell bucket. The disposal of dredged material in federal waters, which is not suitable for beach nourishment due to its grain size and texture (mostly fine sediment), at the federally designated Humboldt Open Ocean Disposal Site (HOODS) was reviewed by the Commission's federal consistency division, which determined that the proposed disposal at HOODS would not affect coastal resources.[2] The exempt maintenance activities are planned to be undertaken between mid-August and mid-October of this year. Therefore, the exempt routine maintenance dredging activities are not under review within the scope of this CDP application. However, rather than dispose of the dredged material at HOODS, the Harbor District now proposes to dewater the materials for potential beneficial reuse in an approved restoration project area in Humboldt Bay called White Slough Tidal Marsh Restoration.[3] The dewatering and discharge activities associated with the exempt maintenance dredging operations are described below.

Reslurrying of Dredged Material and Dewatering Activities

Dredging and dewatering is anticipated to take approximately a month to complete and the same equipment and vessels will be used for dredging operations at both locations (Woodley Island Marina and Fields Landing). Upon dredging the material at each site, material would be deposited into the hopper on a barge. Once full, the barge and hopper would be towed to and moored adjacent to the RMT II and/or Fields Landing dewatering sites. Dewatering may occur at only one or the other of the sites, but temporary dewatering basins (described below), up to 60,000 square feet in size (volume capacity up to 129,600 cubic feet), are proposed at each site to provide flexibility for the dredging contractor.

Once the barge is moored, the dredged material would be reslurried and pumped to the temporary dewatering basin. Pumps would be used to draw-in bay water to a submerged screened intake structure (described further below) and pump it directly into the hopper to reslurry the dredged material. The barge hopper would be water-tight to contain dredged material and water during use. Reslurried material then would be pumped from the hopper to the dewatering basin through a system of 12-inch HDPE pipes. At Terminal II, the piping would run along the dock and existing paved and concrete surfaces. At Fields Landing, the piping would span from the barge to a paved area before reaching the dewatering basin. Pipe sections would be welded together to avoid any risk of leaks. The pumping process would require approximately 60-80% water by volume. The amount of water estimated to be required for pumping a 500 cubic

[1] See Commission File No. 1-18-0272-X for Fields Landing maintenance dredging and 1-18-0196-X for Woodley Island maintenance dredging.

[2] See Commission File No. NE-0002-18 for disposal of the dredged material from Woodley Island Marina at HOODS and NE-0006-18 for disposal of the dredge material from Fields Landing at HOODS.

[3] This project, on the Humboldt Bay National Wildlife Refuge (South Bay unit), began implementation in 2015. On May 1, 2015, the Commission's federal consistency unit reviewed the project proposal from the U.S. Fish and Wildlife Service under ND-0011-15 and concurred with the Service's negative determination. The Commission's review and approval includes the placement of dredge materials and other sediments at the restoration site.

yard load of dredged material from the hopper to the dewatering basin at 70% water is approximately 169,000 gallons. All bay water pumping would follow the intake screening standards described below.

In general, some debris captured in the dredged material is expected to be left in the hopper after the slurry has been pumped out. The Harbor District proposes to manually remove the debris and disposed of it at an appropriate facility based on the type of debris recovered in the process. In addition, the slurry will be run through a trash rack immediately before it enters the dewatering basins (i.e. trash racks will be placed at the outlet of the pipes delivering the dredge slurry from the hopper to the dewatering basins). Debris would be captured by trash racks, removed, and disposed of at an appropriate facility based on the type of recovered debris.

RMT II Site

At the RMT II site (Exhibits 1-2), the Harbor District is authorized under an existing CDP from Humboldt County[4] to use existing clarifiers[5] (settling tanks) on the property for the purpose of dewatering dredged material. Under this existing County CDP, dewatering effluent is authorized for disposal to "manhole #5," an existing drainage system that drains to the ocean through an existing outfall line. Under the subject proposed CDP application, the Harbor District proposes to discharge dewatering effluent from the clarifiers at RMT II to Humboldt Bay instead of to the ocean as currently permitted. Within 24 hours after placement of the dredged materials in the clarifies, effluent in the clarifiers is expected to achieve enough clarity to be within 20% of the background turbidity of Humboldt Bay, at which point the water would be slowly discharged from the top through a controlled opening. A temporary pipeline (6- to 12-inch HDPE) would be placed to route the water to an existing stormwater drain inlet near Humboldt Bay, with pumping as needed. Before discharging to Humboldt Bay, the water would be filtered through baffles, pipe filter socks, and/or drop inlet filters. During discharge, bay water and decant water turbidity would be monitored using a handheld turbidity meter. If discharge water turbidity exceeds bay water turbidity by 20% or more then discharging would cease. Discharge would not restart until solids within the dewatering structures have adequately settled and/or filtering methods have been adjusted in order to meet the turbidity standard. Once the water is pumped off the top of the settled dredged material, the remaining material would be allowed to further dry for a period of 5-10 days which would allow the material to firm up enough for equipment handling.

Additionally, the Harbor District proposes to construct a temporary dewatering basin at RMT II adjacent to the bay shoreline and north of the existing dock (Exhibit 3). The temporary basin would remain on site for up to one year, after which point it would be dismantled. The temporary dewatering basin would be used in addition to or in lieu of the water clarifiers described above. The temporary dewatering basin would be constructed with K-rails or similar structures supporting an impermeable liner. The edges of the liner would be held in place with soft weights such as sandbags. A controllable opening or weir would be constructed on one side of the basin. The same piping methods described above would be used to deliver dredge slurry to the basin and to pump decant water back to Humboldt Bay through an existing storm drain system. The maximum area of the temporary dewatering basin would be 60,000 square feet (volume capacity

[4] Humboldt County CDP No. 16-049 was approved by the County on December 13, 2018.

[5] The clarifiers historically were used for pulp mill operations on the site, which operated from approximately 1960 to 2008.

= 129,600 cubic feet) (Exhibit 3). Discharge of dewatering effluent would be through an existing storm drainpipe (discharge process described below).

Fields Landing Site

At the Fields Landing site (Exhibits 1-2), dredging of the travel lift (haul out ramp) will take place from the paved upland boat yard area. Dredged material would be directly transferred to the temporary dewatering basin or transferred to a watertight container, which would relocate the material to the temporary dewatering basin. The temporary dewatering basin would be constructed as described above but would be smaller (approximately 40,000 square feet in size). The basin would be constructed on top of existing asphalt or concrete surfaces near the west side of the property [Exhibit]. Boats at Fields Landing would be relocated to other paved areas on site. The temporary basin would remain on site for up to six months, after which point it would be dismantled.

Discharge to Humboldt Bay

To estimate sediment settling times for dredged sediments, a laboratory test was conducted using Woodley Island Marina sediments suspended in 1 foot of bay water. Based on the settling test, after 24 hours particles of solid dredged material settle out and displace the majority of the water to the surface. Within 24 hours after the placement of dredged materials in temporary dewatering basins at each site, water in the dewatering basins is expected to achieve enough clarity to be within 20% of the background turbidity of Humboldt Bay (which is the standard required by the Regional Water Board), and at this point the water would be gently let off the top through a controlled opening. A temporary pipeline system, described above, would route the water to existing stormwater drains at each site.

Before discharging to Humboldt Bay at each site, the water would be filtered through baffles, pipe filter socks, and/or drop inlet filters. During discharge to Humboldt Bay, bay water and decant water turbidity would be monitored using a handheld turbidity meter and compared at the following times: (a) immediately after discharge has commenced; (b) every two hours during discharge; and (c) after any potential change to the discharge (e.g. addition of new dredged material to a dewatering basin or changed configuration of baffling). If discharge water exceeds bay water turbidity by 20% or more, then discharging would cease operation. Discharge would only recommence when the solids within the dewatering structures have adequately settled and/or filtering methods have been adjusted in order to meet the turbidity standards.

The anticipated rate of discharge at each site is 20 gallons per minute (gpm) with a velocity of 0.01 feet per second (fps), which is substantially lower than discharge volume and rate during average winter rain events. After initial dewatering, the solids in the dewatering basin would continue to settle and displace water as it compacts under its own weight. In total, approximately 135,000 gallons of water is expected to be removed per 1,000 cubic yards of sediment removal. After 5-7 days of additional settling, the material is expected to be within the moisture range low enough to handle with equipment to transport to the beneficial reuse site.

Pumping and Intake Screening Standards

All bay water pumping for dredged material reslurrying would include use of a screened intake device consisting of a 6-foot by 6-foot by 10-foot stainless steel perforated “basket” (Exhibit 4). The device would be designed to extract seawater through a tubing system connected to the

hopper in a manner that avoids impingement and entrainment of fish. The structure would be suspended in the water from the side of the barge or from the side of the existing dock at the RMT II site. There would be at least 3 feet to 6 feet of water depth both above and below the submerged device when in operation (i.e., the device would be at least 3 to 6 feet below the surface of the water and at least 3 to 6 feet above the bay bottom when in operation). In addition, the proposed device would meet the following criteria, which are recommended by NMFS and CDFW for protection of listed fish species in the bay:

1. Round or square (measured diagonally) openings shall not exceed 2.38 millimeters (mm) (3/32 inches);

2. Slotted openings in the screen shall not exceed 1.75mm (0.0689”);

3. Approach velocity shall not exceed 0.2 feet per second (fps) for self-cleaning screens or 0.05fps for non-self-cleaning screens; and

4. Overall screen porosity shall be a minimum of 27%.

The pump that would be used would draw a maximum of 1,500 gallons per minute (gpm). The device would be removed from the bay water and manually cleaned with brushes and/or water after every time that water is pumped to the hopper, which may be multiple times per day.

Removal of Dewatered Dredged Material from Sites

Pursuant to Regional Water Board Requirements, prior to dredging, material within the dredging area will be sampled using incremental sampling methodology (ISM). Sampling results will be compared to existing sampling results for the White Slough Restoration Project, which is located within the Humboldt Bay National Wildlife Refuge. The Commission approved this project through its federal consistency division in May of 2015 (Commission File No. ND-0011-15). The primary purpose of the White Slough Tidal Restoration Project, implemented by the U.S. Fish and Wildlife Service, is to restore and enhance salt marsh habitat on diked former tidelands, and to enhance existing degraded brackish and freshwater wetlands to create additional native wildlife habitat. The restoration work, which has been ongoing over the past few years and is expected to continue for several additional years, involves the placement of thousands of cubic yards of sediment material within the marsh restoration area.

If the dewatered dredged material from the temporary dewatering basins is found to be compatible with placement in the White Slough Restoration area, it would be trucked from temporary dewatering basins to the approved site. If the material is determined to be incompatible with placement at White Slough, the Harbor District proposes to dispose of the material only at an approved location capable of receiving the material. The Commission approval of the White Slough Restoration Project through its federal consistency division in May of 2015 included the approval of placement of soils and dredged material in the restoration area from a variety of sources. Therefore, the dredged material disposal at White Slough is not being reviewed under the scope of this CDP application. However, if the dewatered material were to be targeted for disposal or beneficial reuse at a site in the coastal zone other than White Slough, additional CDP authorization from the Commission may be required.

B. ENVIRONMENTAL SETTING

The Fields Landing Boat Yard is approximately 33 acres and is located on the east side of Humboldt Bay in the unincorporated community of Fields Landing approximately 6.6 miles south of Eureka (APN 307-101-002). The subject site is a secured boat yard that is owned and operated by the Harbor District. The property is locally planned and zoned for coastal dependent industrial uses under the Humboldt County LCP. The facility site consists of boat storage areas; a boat cleaning and maintenance work yard; boat launch; rest rooms; a covered boat repair shop; office, and store; storage area for the boat lift; and a dock. Vessels may be hauled out of the water and moved via the mobile boat lifting hoist (150-ton capacity). This secure facility is fenced and has 24-hour surveillance. A floating dock is secured to the outside (east) of the three existing pilings that extend towards the federal channel off the end of the eastern dock finger. The dock is used when multiple vessels are launched to perform vessel checks post-launching, and prior to heading out to sea. The floating concrete dock is approximately 5 feet wide and 24 feet long (in 8' sections). A gangway is installed to provide access from the pier to the floating dock.

The facility operates under an approved stormwater pollution prevention plan from the North Coast Regional Water Quality Control Board. The facility has one industrial drainage area, which is almost entirely paved. The industrial area at the site flows to a drainage inlet in the eastern portion of the site.

Redwood Marine Terminal II (RMT II) is approximately 68.49 acres and is located in Humboldt County on the Samoa Peninsula approximately 5 miles east of Eureka (APN 401-112-021). The Harbor District acquired the former pulp mill site in 2013. The site, RMT II, is designated and zoned for coastal-dependent industrial use and had significant historic usage from the time it was constructed in the 1960s until approximately 2008 when the pulp mill closed permanently. Existing site infrastructure including industrial equipment, laboratories, warehouses, offices, site roadways, and water/wastewater infrastructure was originally developed during this time to support site activities and employees.

This industrial site has been in operation on the Samoa Peninsula for over 50 years. In December 2015, the County approved a CDP[6] for site infrastructure improvements, which allowed for necessary maintenance of existing infrastructure. The Harbor District received new market tax credits to make existing renovations including: new roofing, building siding and access doors, water and fire suppression upgrades, electrical upgrades including substation and energy efficiency retrofits, and upgraded security fencing. Additionally, recently implemented upgrades include: installation of fiber optic cables, electrical repairs/upgrades to site buildings, installation of a 730 Kwh rooftop solar array, and site drainage improvements. In sum, the Harbor District has also made significant investment in the adjacent dock facilities. Existing operations on RMT II include aquaculture, sea salt production, and various interim uses.

C. STANDARD OF REVIEW

The proposed project is located in the Commission's retained jurisdiction. The County of Humboldt has a certified local coastal program (LCP), but the site is within an area shown on State Lands Commission maps over which the state retains a public trust interest. Therefore, the

[6] Humboldt County CDP No. 15-043

standard of review that the Commission must apply to the project is the Chapter 3 policies of the Coastal Act.

D. OTHER AGENCY APPROVALS

Humboldt Bay Harbor, Recreation, and Conservation District. The Harbor District was created by the State Legislature in 1970 to oversee development of the harbors and ports of Humboldt County for the benefit of the people. The Harbor District has permit jurisdiction over all tidelands and submerged lands within Humboldt Bay and administers sovereign tidelands and submerged lands over most of Humboldt Bay pursuant to a legislative grant. The Harbor District approved Administrative Permit Amendments for maintenance dredging at Woodley Island (No. A-2018-02 Amendment #1) and Fields Landing (No. A-2018-03 Amendment #1) on July 10, 2019.

North Coast Regional Water Quality Control Board. The Regional Board requires a water quality certification (WQC) for projects involving dredging and/or filling activities under Section 401 of the Clean Water Act. The Harbor District has coordinated with the Regional Board and obtained permit(s) for the proposed project (Water Quality Permit No. 1B180035WNHU issued July 11, 2019).

U.S. Army Corps of Engineers. The Corps may have regulatory authority over the proposed project under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 1344) and/or Section 404 of the Clean Water Act. Section 10 of the Rivers and Harbors Act regulates structures or work in navigable waters of the United States. Section 404 of the Clean Water Act regulates fill or discharge of materials into waters and ocean waters. **Special Condition 1** is attached to require that the Harbor District obtain any necessary approvals from the Corps for the proposed project.

National Marine Fisheries Service. Through its consultation with the Corps, NMFS published a letter of concurrence for the proposed project on July 17, 2019. NMFS concludes that the project as proposed (with proposed implementation and minimization measures) will not result in significant adverse effects to listed species, including salmon, steelhead, green sturgeon, or eelgrass (which is classified as essential fish habitat).

California Department of Fish & Wildlife. CDFW, in its administration of the California Endangered Species Act (CESA), requires an Incidental Take Permit (ITP) for "take" of listed species incidental to otherwise lawful development projects. If the seawater diversion proposed under this CDP application is implemented as proposed consistent with CDFW guidelines for intake screening, CDFW staff has informed Commission staff that CDFW will not require an ITP for the project, because the project is expected to avoid incidental take of CESA-listed coho salmon and longfin smelt, as discussed in the following section.

E. PROTECTION OF COASTAL WATERS

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.*

Section 30231of the Coastal Act states the following:

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

Section 30233(b) of the Coastal Act states the following:

> *Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable longshore current systems.*

The project has the potential to impact marine resources and the biological productivity and quality of coastal waters in several ways. First, the proposed diversion of seawater for the reslurrying operations could impact various species of sensitive fish that have the potential to inhabit the project area waters. Second, the proposed discharge of decant water back into Humboldt Bay following dewatering of dredged material potentially could impact water quality as well as offshore eelgrass, which is classified by the National Marine Fisheries Service as "essential fish habitat" and considered a species of special biological significance due to its importance as foraging and spawning habitat for numerous marine organisms and seabirds. Third, the improper handling and disposal of dredged material could result in water quality impacts. Each of these potential impacts and appropriate mitigation measures to protect and maintain marine resources and water quality is discussed below

Potential diversion impacts and mitigation measures

The proposed diversion of seawater for the reslurrying operations has the potential to adversely affect marine resources and the biological productivity of coastal waters in Humboldt Bay by potentially causing adverse impacts to various species of sensitive fish that have the potential to inhabit the project area waters. Three species of salmonids, including the Southern Oregon/Northern California Coasts Evolutionarily Significant Unit (ESU) of coho salmon (*Oncorhynchus kisutch*), California Coastal ESU Chinook salmon (*O. tshawytscha*), and Northern California ESU steelhead (*O. mykiss*), are present in Humboldt Bay both as adults during their migration from the sea into spawning rivers in the fall and winter and as juveniles as they move downstream into the ocean in the spring and early summer. All three salmon species are listed as threatened under the federal ESA (coho also is listed as threatened under the California ESA). Longfin smelt (*Spirinchus thaleichthys*), listed as a threatened species under the California ESA, and generally spawns in freshwater and moves downstream to estuarine

conditions to grow, including within Humboldt Bay waters. Once among the most abundant fish species in Humboldt Bay, present in larval, juvenile, and adult life stages, longfin smelt were considered to be possibly extinct there by 1996[7]. In recent years, however, longfin smelt have again been observed in Humboldt Bay and are thought to be present year-round.[8]

The removal of seawater through intake structures is known to result in the impingement and entrainment of marine life. The type and quantity of marine life that may be adversely affected in this way is related to the size and velocity of the intake structures. Larger, high-velocity structures can cause the impingement and entrainment of larger organisms that can include adult fish, while smaller low-velocity structures can typically only impinge and entrain smaller larval and juvenile organisms. While impingement (capture of fish and marine organisms against an intake screen due to suction) can often result in the injury or mortality of the affected organism, adverse effects of entrainment (capture of fish and marine organisms in the intake stream) vary based on the type of intake system (configuration of pipes, pressure changes, temperatures) and ultimate use of the entrained water.

As discussed above, the Harbor District has proposed various measures to minimize the potential for fish impingement and entrainment impacts. These include: (1) restricting the work window to the period of July 1 to October 15 to minimize effects to listed species; (2) designing the intake device to meet certain flow rate and screening standards for fish protection, including (a) ensuring that the device will be suspended in the water from the side of the barge or from the side of the existing dock at the RMT II site with at least 3 feet to 6 feet of water depth both above and below the submerged device when in operation; (b) using screening with round or square (measured diagonally) openings that do not exceed 2.38 millimeters (mm) (3/32 inches), and slotted openings shall not exceed 1.75mm (0.0689”); (c) ensuring that approach velocity at the intake ports shall not exceed 0.2 feet per second (fps) for self-cleaning screens or 0.05fps for non-self-cleaning screens; (d) maintaining a minimum overall screen porosity of 27%; and (e) if using a non-self-cleaning screen, ensuring that the device will be removed from the bay water and manually cleaned with brushes and/or water after every time that water is pumped to the hopper, which may be multiple times per day.

CDF&W staff has reviewed the proposed measures to minimize fish impingement and entrainment, and has informed Commission staff that the project is expected to avoid incidental take of coho salmon and longfin smelt.

In addition, the Harbor District has proposed to implement the project in accordance with various operational best management practices (BMPs) that will further protect listed fish species and water quality. These include, various water quality BMPs and also restricting the work window to the period of July 1st to October 15th when listed salmonids are not typically migrating through the area.

The Commission attaches **Special Conditions 2 and 3** to require that the Harbor District undertake the project in accordance with all proposed protective measures and BMPs described

[7] Eldridge and Bryan 1972; U.S. Fish and Wildlife Service 1996.
[8] Pinnix et al. 2005.

in the project description and summarized above to protect marine resources, biological productivity, and the quality of coastal waters consistent with Sections 30230 and 30231.

Potential water quality discharge impacts and mitigation measures

The proposed discharge of decant water back into Humboldt Bay following dewatering of dredged material potentially could impact water quality as well as offshore eelgrass, which is classified by the National Marine Fisheries Service as "essential fish habitat" and considered a species of special biological significance due to its importance as foraging and spawning habitat for numerous marine organisms and seabirds. Eelgrass beds occur directly offshore from both RMT II and Fields Landing. Eelgrass impacts could occur either as a result of elevated turbidity levels around the discharge points during discharge of the decant water or as a result of scour from high-velocity discharge. The project also could result in water quality impacts through uncontrolled spills of equipment fluids or uncontained dredge slurry during transport of slurry material along temporary pipelines.

As discussed, the proposed dewatering operations will result in decant water being piped through temporary pipelines to existing stormwater discharge points – one in Fields Landing and one at RMT II. During typical rain events, stormwater discharge flows through these stormwater drains into Humboldt Bay. During normal heavy rains each winter, the volume of stormwater discharge and rate at which it flows through the stormwater drains into Humboldt Bay is much higher than the proposed maximum volume and rate of discharge under this CDP application (approximately 20 gallons per minute at a velocity of 0.01 feet per second). To ensure that the volume and rate of discharge do not result in unacceptable turbidity levels or scour, the Harbor District has proposed to monitor turbidity at discharge points to ensure that turbidity levels are not elevated by more than 20 percent relative to ambient levels (20% is the standard required by the North Coast Regional Water Quality Control Board). Turbidity is proposed to be monitored (a) immediately before discharge begins; (b) every two hours during discharge; and (c) after any potential change to the discharge (e.g., addition of new dredged material to a dewatering unit or changed configuration of baffling). The Commission attaches **Special Condition 2-ix** to require the turbidity monitoring as proposed.

In addition, the Harbor District has proposed several additional operational measures to further protect water quality throughout the course of the proposed work. These include, but are not limited to, the following: (1) vegetable-based or biodegradable hydraulic fluids shall be used, if possible, in equipment operating over water or without secondary containment; (2) equipment shall be inspected and serviced prior to mobilization and throughout the project operations, and leaks shall be repaired immediately when discovered; (3) spill kits shall be maintained on the barge and dock; (4) temporary dewatering basins shall be constructed with an impermeable liner, and the perimeter of the liner shall be secured to minimize the potential for uncontrolled discharge of polluted dredge slurry; (5) trash racks shall be placed at the outlet of pipes delivering dredge slurry from the hopper to dewatering basins to be captured, removed, and disposed of at an appropriate facility based on the type of recovered debris; (6) all temporary pipes used to transport dredge slurry material between the hopper barge and dewatering basins and between basins and discharge points for decant effluent shall be welded together to avoid any risk of leaks; and (7) the discharge sites, a liner and sandbags shall be used to direct flow to the bay and waddles shall be used for filtering out sediments. These proposed measures are required by **Special Conditions 2** to ensure that the Harbor District undertakes the project in a

manner that will protect marine resources and the water quality consistent with Sections 30230 and 30231.

Potential spoils handling and disposal impacts and mitigation measures

As previously discussed, the scope of this CDP application does not include the dredging aspects of the project, since the planned routine maintenance dredging was determined to be exempt from CDP requirements under Coastal Act section 30610(d) and the Commission's regulations (Title 14 CCR § 13252). However, this application includes the upland dewatering of the dredged material for its potential beneficial reuse in an existing permitted restoration project on the Humboldt Bay National Wildlife Refuge. As discussed above, the Harbor District will sample the dredged material pursuant to the Regional Water Board-approved incremental sampling methodology (ISM) and compare the results with previous sediment sampling results taken at the White Slough Restoration Project site. If the material constituent levels are determined to be equivalent to or lower than the levels at the receiving restoration site, the dewatered dredged material will be transported from RMT II and Fields Landing to the restoration site by truck for beneficial reuse. In the past, sediment material sampled from Woodley Island Marina and from Fisherman's Channel in King Salmon have been approved by the Regional Water Board for beneficial reuse at White Slough. The Commission's federal consistency division approved the placement of suitable dredged material and other sediments at the White Slough Restoration Project site in 2015 (Commission File No. ND-0011-15). Thus, while the Harbor District plans to beneficially reuse the sediment in this manner, the scope of this CDP application does not include the placement of the material at White Slough as planned by the Harbor District.

Nevertheless, Section 30233(b) of the Coastal Act requires that dredging and spoils disposal be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. The section also requires that dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable longshore current systems. Therefore, the Commission must ensure that the handling and disposal of dredged material that are being reviewed under the scope of this CDP application are carried out to avoid significant disruption to habitats.

While some of the material that is dredged from Humboldt Bay during routine maintenance dredging operations is suitable for beach nourishment purposes, such as the material that is annually dredged by the Army Corps of Engineers from the bay entrance area, the materials that are dredged during routine maintenance dredging from the docks and marinas in the interior portions of the bay, such as Woodley Island Marina and Fields Landing, are not suitable for beach replenishment (incompatible grain size and texture). The material has, however, been found in the past to be compatible with the planned receiving site (White Slough).

As previously discussed, the Harbor District has proposed various measures to protect water quality during operational handling of the dredged material including constructing temporary dewatering basins with a secured impermeable liner; welding pipes together in temporary pipelines used to transport dredge slurry material between the hopper barge and dewatering basins and between basins and discharge points for decant effluent; and using trash racks to recover any dredged debris prior to transport to dewatering basins and properly disposing

recovered debris. These proposed measures, among other water quality protection measures, are required to be implemented by **Special Condition 2**.

Finally, the project application states that if the material is determined from test results to be incompatible with placement at White Slough as determined by the Regional Water Board, the Harbor District proposes to dispose of the material only at an approved location capable of receiving the material. This requirement is included in Special Condition 2. However, if the dredged material ultimately is not to be disposed of at White Slough, the Commission must ensure that the handling and disposal of dredged material is appropriately carried out to avoid significant disruption to habitats. Therefore, the Commission attaches **Special Condition 4**. This condition requires the applicant to submit a dredged material disposal plan for review and approval.

Therefore, the project, as proposed and conditioned, will be carried out in a manner in which marine resources are maintained, species of special biological significance are given special protection, the biological productivity of coastal waters is sustained, and healthy populations of all species of marine organisms will be maintained. Additionally, the project, as conditioned, will maintain the biological productivity of coastal waters and estuarine habitats appropriate to maintain optimum populations of marine organisms.

F. PRIORITY OF COMMERCIAL FISHING AND CDI USES

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. Existing commercial fishing and recreational boating harbor space shall not be reduced unless the demand for those facilities no longer exists or adequate substitute space has been provided…*

Section 30234.5 of the Coastal Act states:

> *The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.*

Section 30255 of the Coastal Act states, in applicable part:

> *Coastal-dependent uses shall have priority over other developments on or near the shoreline…When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support.*

Section 30701(b) of the Coastal Acts states:

> *Existing ports, including the Humboldt Bay Harbor, Recreation, and Conservation District, shall be encouraged to modernize and construct necessary facilities within their boundaries in order to minimize or eliminate the necessity for future dredging and filling to create new ports in areas of the state.*

The Coastal Act prioritizes protection of certain priority uses over other competing uses without priority. The Coastal Act provides that coastal-dependent developments, including coastal-related developments and coastal recreation uses, shall have priority over other developments on or near the shoreline. Generally, these priority land uses include uses that by their nature must be located on the coast to function, such as ports and commercial fishing facilities, and uses that encourage the public's use of the coast, such as various kinds of visitor-serving recreational facilities. Coastal-dependent industrial facilities are encouraged to locate or expand within existing sites, and CDI is given priority over visitor-serving commercial recreational facilities that enhance public opportunities for coastal recreation. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support. Coastal-related developments may include facilities that support commercial fishing and aquaculture (e.g., storage and work areas, berthing and fish receiving, areas for fish processing for human consumption, and aquaculture support facilities).

The Coastal Act, as cited above, recognizes the Port of Humboldt Bay as one of the state's primary economic and coastal resources and an essential element of the national maritime industry. The dredging and beneficial reuse of dredge spoils will only serve to further the CDI potential and priority of Humboldt Bay and the Harbor District.

Existing operations at RMT II include aquaculture, sea salt production, and various interim uses. It is undisputed that the aquaculture and sea salt production are uses that require a site on, or adjacent to, the sea to be able to function at all. The various interim uses are not coastal-dependent and are not analyzed as such.

Existing operations at Fields Landing Boat Yard consists of boat storage areas; a boat cleaning and maintenance work yard; boat launch; covered boat repair shop; storage area for the boat lift; and a dock. The existing uses at Fields Landing are coastal-dependent, and it is important that any disruption of existing CDI uses be minimized.

The proposed project will avoid significant disruption of existing uses. For example, existing uses at RMT II will not be disrupted, because there is ample vacant land for the existing and new coastal-dependent uses. Aside from the proposed temporary dewatering basin, the infrastructure and facilities are on hand. Additionally, any conceivable impacts would be short-term due to the proposed duration of the project. The temporary dewatering basin at RMT II is proposed to remain for only one year. Similarly, the duration of the use of the temporary dewatering basin at Fields Landing is proposed to be only 6 months. Fields Landing also can accommodate the temporary dewatering basin because the Harbor District can move the boats on site and the repair work can continue uninterrupted. Finally, **Special Condition 5** requires the permittee to obtain a permit amendment if the temporary dewatering basins will be retained longer than currently proposed.

Therefore, the Commission finds that the project as proposed does not diminish the prioritization of coastal-dependent uses, consistent with Coastal Act section 30255.

G. PUBLIC ACCESS AND RECREATION

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

As noted previously, the project sites are located on industrial sites on Humboldt Bay. The project sites do not currently support public access. The proposed project will not block access along the shoreline and will not increase the demand for public access. Therefore, the Executive Director finds that the proposed project will not adversely affect public access and the project as proposed without new public access is consistent with the requirements of Coastal Act Sections 30210, 30211, 30212, and 30214.

H. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

The Harbor District is the lead agency for the project under CEQA and determined that the project is exempt from CEQA pursuant to a Class 4 categorical exemption, which exempts minor public or private alterations in the condition of land, water, and/or vegetation which do not remove healthy, mature, scenic trees (See §15304. Minor Alterations to Land). This includes minor temporary use of land having negligible or no permanent effects on the environment and maintenance dredging (§15034(e) and (g)).

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

The Executive Director incorporates his findings on conformity with the Chapter 3 policies of the Coastal Act at this point as if set forth in full. These findings address and respond to all public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. As discussed above, the development has been conditioned to be found consistent with the policies of the Coastal Act. Mitigation measures, which will minimize all adverse environmental impacts, have been required as permit special conditions. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse

impact that the activity may have on the environment. Therefore, the Executive Director finds that the development as conditioned to mitigate the identified impacts can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.