

CALIFORNIA COASTAL COMMISSION

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Hearing Date: 9/13/17

STAFF REPORT: REGULAR CALENDAR

Application No.: 1-17-0514

Applicant: Richard and Carol Holland

Agent: Prairie Moore, NRM Corp.

Location: On Fay Slough near the end of Devoy Road, on the northeastern boundary of Eureka, Humboldt County (APN 402-281-13)

Project Description: Repair a 100-foot-long section of an existing 6,750-foot-long agricultural levee by placing 240 cubic yards of rock materials along the existing earthen levee.

Staff Recommendation: Approval with conditions.

SUMMARY OF STAFF RECOMMENDATION

The Applicant proposes to repair an approximately 100-foot-long segment of an existing approximately 6,750-foot-long earthen levee that is eroding and at risk of breaching. Breaching of the levee at this location would result in the flooding of hundreds of acres of agricultural land with salt water from a tidal slough connected to Humboldt Bay. Proposed repairs consist of placing approximately 180 cubic yards of 1/4-ton rock slope protection and 60 cubic yards of base rock and associated geotextile fabric on the slough side of the existing agricultural levee, within the original levee footprint, behind (landward of) the deteriorating redwood timber retaining wall

that demarcates the historic seaward extent of the levee. Portions of the wall have deteriorated and washed away, and as a result, a segment of levee behind the wall has sloughed off and eroded. Project plans are included as **Exhibit 3**.

The proposed work constitutes a repair and maintenance project pursuant to Section 30610(d) of the Coastal Act and Section 13252 of the Commission's regulations because the project will not involve an addition, enlargement or expansion of the levee, and less than 50% of the levee will be replaced. In its consideration of a repair and maintenance project, the Commission reviews whether the proposed method of repair and maintenance of the existing development is consistent with the Chapter 3 policies of the Coastal Act.

Unless feasible mitigation measures are employed, the method of repair and maintenance could have potential adverse effects on the biological productivity and quality of coastal waters and would not minimize risks of geologic hazards. To address potential adverse effects, staff recommends Special Conditions 1 through 7. **Special Condition 3** outlines general construction standards and responsibilities that must be adhered to, along with timing provisions for construction and BMPs designed to maintain water quality and the marine environment. **Special Condition 4** requires submittal of debris disposal details prior to permit issuance to ensure that excess soil, vegetation, remnants of the redwood timber retaining wall, and other debris generated by excavation of the levee repair area will be disposed of lawfully. **Special Condition 5** specifies standards for the levee repair to ensure the integrity of the repairs and minimize geologic hazards, including requirements that the repairs be performed consistent with the approved engineering plans, that the alignment of the repairs shall encroach no further seaward than the existing remnant timber retaining wall that demarcates the historic footprint of the levee toe, and that the Applicant submit a follow-up monitoring report within one year of completion of construction that assesses any migration or movement of rock at the site and includes recommendations for repair, maintenance, modifications or other work to the levee. Finally, **Special Condition 6** would require the Applicant to successfully implement the proposed habitat enhancement plan to provide feasible mitigation measures to minimize adverse environmental effects the proposed wetland fill impacts consistent with section 30233 of the Coastal Act.

Staff believes that the proposed method of repair and maintenance, if conditioned as recommended, is consistent with Coastal Act sections 30230, 30231, 30232, 30233, and 30253 requiring the protection of marine resources, water quality, and minimization of hazard risks. The Motion to adopt the staff recommendation of **approval with special conditions** is shown on [page 4](#).

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APPENDICES

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EXHIBITS

[Exhibit 1 – Regional location map](#)

[Exhibit 2 – Project vicinity map](#)

[Exhibit 3 – Project plans](#)

[Exhibit 4 – Engineer’s design memo](#)

[Exhibit 5 – Habitat enhancement plan](#)

[Exhibit 6 – Access and staging plan](#)

I. MOTION AND RESOLUTION

The staff recommends that the Commission adopt the following resolution:

Motion:

I move that the Commission approve coastal development permit 1-17-0514 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 Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

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 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.

III. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Other Agency Approvals.** PRIOR TO ISSUANCE OF THIS PERMIT, the Applicant shall provide to the Executive Director (a) a copy of a Streambed Alteration Agreement issued by the California Department of Fish and Wildlife (CDFW) and (b) a copy of a Water Quality Certification issued by the North Coast Regional Water Quality Control Board (Board), or evidence that no permit(s) or permission(s) is/are required from these agencies. The Applicant shall inform the Executive Director of any changes to the project required by these agencies. 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 issues a written determination that no amendment is legally required.
2. **State Lands Commission Review.** PRIOR TO ISSUANCE OF THIS PERMIT, the Applicant shall provide 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.
3. **Construction Responsibilities** The permittee shall comply with the following construction-related requirements and Best Management Practices (BMPs):
 - A. Timing of Construction Activities
 - i. In-water construction activities authorized by this permit, shall be conducted during the period of August 1 through October 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 protect sensitive fish species; and
 - ii. All construction activities involving the removal and/or placement of rock or other materials 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.
 - B. Staging and Stockpiling
 - i. Staging and storage of construction equipment and materials (including debris) shall not take place in coastal waters, drainage courses, or areas exhibiting wetland hydrology during the construction period. Staging and storage of construction equipment and materials shall occur at least 50 feet from coastal waters, drainage courses, and areas exhibiting wetland hydrology during the construction period, if

- feasible. Upon a showing of infeasibility, the applicant may submit a request for review and written approval to the Executive Director for staging and storage of construction equipment and materials closer than 50 feet from coastal waters, drainage courses, and areas exhibiting wetland hydrology during the construction period. Construction is prohibited outside of the defined construction, staging, and storage areas.
- ii. Materials management and waste management BMPs (such as stockpile management, spill prevention, and good housekeeping practices) shall be installed or implemented as needed to minimize pollutant discharge and polluted runoff resulting from staging, storage, and disposal of construction chemicals and materials. BMPs shall include, at a minimum:
- C. Minimize Discharge of Construction Pollutants. The discharge of other pollutants resulting from construction activities (such as chemicals, vehicle fluids, petroleum products, asphalt and cement compounds, debris, and trash) into runoff or coastal waters shall be minimized through the use of appropriate BMPs, including:
- i. Materials management and waste management BMPs (such as stockpile management, spill prevention, and good housekeeping practices) shall be installed or implemented as needed to minimize pollutant discharge and polluted runoff resulting from staging, storage, and disposal of construction chemicals and materials. BMPs shall include, at a minimum:
 - a) Covering stockpiled construction materials, soil, and other excavated materials to prevent contact with rain, and protecting all stockpiles from stormwater runoff using temporary perimeter barriers.
 - b) Cleaning up all leaks, drips, and spills immediately; having a written plan for the clean-up of spills and leaks; and maintaining an inventory of products and chemicals used on site.
 - c) Proper disposal of all wastes; providing trash receptacles on site; and covering open trash receptacles during wet weather.
 - d) Prompt removal of all construction debris following completion of construction.
 - ii. Fueling and maintenance of construction equipment and vehicles shall be conducted off site if feasible. Any fueling and maintenance of mobile equipment conducted on site shall not take place on the levee, and shall take place at a designated area located at least 50 feet from coastal waters, drainage courses, and coastal wetlands, if feasible (unless those inlets are blocked to protect against fuel spills). The fueling and maintenance area shall be designed to fully contain any spills of fuel, oil, or other contaminants. Equipment that cannot be feasibly relocated to a designated fueling and maintenance area (such as cranes) may be fueled and maintained in other areas of the site, provided that procedures are implemented to fully contain any potential spills.
- D. Minimize Erosion and Sediment Discharge. During construction, erosion and the discharge of sediment off-site or to coastal waters shall be minimized through the use of appropriate BMPs, including:
- i. Land disturbance during construction (e.g., clearing, grading, and cut-and-fill) shall be minimized, and grading activities shall be phased, to avoid increased erosion and sedimentation.

- ii. Erosion control BMPs (such as mulch, soil binders, geotextile blankets or mats, or temporary seeding) shall be installed as needed to prevent soil from being transported by water or wind. Temporary BMPs shall be implemented to stabilize soil on graded or disturbed areas as soon as feasible during construction, where there is a potential for soil erosion to lead to discharge of sediment off-site or to coastal waters.
 - iii. Sediment control BMPs (such as silt fences, fiber rolls, sediment basins, inlet protection, sand bag barriers, or straw bale barriers) shall be installed as needed to trap and remove eroded sediment from runoff, to prevent sedimentation of coastal waters.
 - iv. Grading shall be conducted only during the dry season, from April 15th to October 15th or for such additional time that the Executive Director may permit for good cause and in consultation with all relevant resource protection agencies, to protect coastal wetlands and waters;
- E. Minimize Other Impacts of Construction Activities. Other impacts of construction activities shall be minimized through the use of appropriate BMPs, including:
- i. The damage or removal of native vegetation (including trees, native vegetation, and root structures) during construction shall be minimized to achieve water quality benefits such as transpiration, vegetative interception, pollutant uptake, shading of waterways, and erosion control.
 - ii. Soil compaction due to construction activities shall be minimized to retain the natural stormwater infiltration capacity of the soil.
 - iii. The use of temporary erosion and sediment control products (such as fiber rolls, erosion control blankets, mulch control netting, and silt fences) shall not incorporate plastic netting (such as polypropylene, nylon, polyethylene, polyester, or other synthetic fibers) to prevent wildlife entanglement and plastic debris pollution.
- F. Construction In, Over, or Adjacent to Coastal Waters and Habitat. Construction taking place in, over, or adjacent to coastal waters and habitat shall protect the coastal waters and habitat by implementing additional BMPs, including:
- i. Construction activity shall not be conducted below the mean high tide line unless tidal waters have receded and the area is part of the authorized work area.
 - ii. All work shall take place during daylight hours, and lighting of the slough area is prohibited.
 - iii. Tarps or other devices shall be used to capture debris, dust, oil, grease, rust, dirt, fine particles, and spills to protect the quality of coastal waters.
 - iv. All erosion and sediment controls shall be in place prior to the commencement of construction, as well as at the end of each workday. At a minimum, if grading is taking place, sediment control BMPs shall be installed at the perimeter of the construction site to prevent construction-related sediment and debris from entering the slough, coastal wetlands, and drainage swales.
 - v. All debris resulting from construction activities shall be removed from the levee and surrounding pastureland within seven (7) days of completion of construction.
- G. Notification. The permittee shall notify planning staff of the Coastal Commission's North Coast District Office at least three working days in advance of (i) commencement of construction or maintenance activities, and immediately upon completion of construction

or maintenance activities, and (ii) of any anticipated changes in the schedule based on site conditions, weather or other unavoidable factors.

- H. Construction Site Documents. Copies of the signed CDP and the approved final plans shall be maintained in a conspicuous location at the construction site at all times. All persons involved with the construction shall be briefed on the content and meaning of the CDP and the approved final plans prior to commencement of construction.

4. Debris Disposal Plan

- A. PRIOR TO ISSUANCE OF THIS PERMIT, the Applicant shall submit, for the review and approval of the Executive Director, a plan for the disposal of excess construction related debris, including excess soil and vegetative spoils from the excavation of the levee repair area. The plan shall describe the manner by which the material will be removed from the construction site and identify a disposal site that is in an upland area where materials may be lawfully disposed.
- B. The permittee shall undertake development in conformance with the approved final plans unless the Commission amends this permit or the Executive Director issues a written determination that no amendment is legally required for any proposed minor deviations.

5. Levee Repair Authorization, Design, Monitoring and Maintenance

- A. Conformance with approved engineered plans. The repairs to the levee authorized by this permit shall be performed consistent with the submitted plans titled "Proposed Improvements for Holland Levee Restoration," dated July 2016, and prepared by Manhard Consulting. To protect the integrity of the levee over time, the Permittee must maintain the levee in its approved state. The Permittee shall undertake development in conformance with the approved final plans unless the Commission amends this permit or the Executive Director issues a written determination that no amendment is legally required for any proposed minor deviations.
- B. Structure Alignment. The alignment shall encroach no further seaward than the existing remnant timber retaining wall that demarcates the historic footprint of the levee toe.
- C. No Future Seaward Encroachment. By acceptance of this Permit, the Applicant agrees, on behalf of itself and all successors and assigns, that no future repair or maintenance, enhancement, reinforcement, or any other activity affecting the shoreline structure approved pursuant to Coastal Development Permit 1-17-0514, as described and depicted on approved as-built plans, shall result in any encroachment seaward of the authorized footprint of the shoreline structure. By acceptance of this Permit, the Applicant waives, on behalf of itself and all successors and assigns, any rights to such activity that may exist under Public Resources Code Section 30235.
- D. Monitoring. Within one year following completion of construction, the Applicant shall submit a monitoring report that has been prepared by a licensed geologist, or civil or geotechnical engineer, which (i) evaluates the condition and performance of the approved levee repair area, including an assessment of whether any weathering or damage has occurred that could adversely impact future performance of the repaired structure; (ii) a description of any migration or movement of rock that has occurred on the site; and (iii) recommendations for repair, maintenance, modifications or other work to the levee. If the monitoring report contains recommendations for repair, maintenance or other work, the

Applicant shall contact the Coastal Commission District Office to determine whether such work requires a coastal development permit.

- E. **Maintenance.** The authorized shoreline structure may be maintained in its authorized as-built state, subject to the following:
- i. The Permittee shall remove or redeposit any debris, rock, or material that becomes dislodged after completion of the approved shoreline protection as soon as possible after such displacement occurs. The Permittee shall contact the North Coast Coastal Commission District Office immediately to determine whether such activities require a coastal development permit.
 - ii. Future maintenance work shall not disturb the mitigation vegetation proposed to be planted along the length of the repaired levee pursuant to the proposed Habitat Enhancement Plan required to be implemented by **Special Condition 6**.
 - iii. The Permittee acknowledges that these maintenance stipulations do not obviate the need to obtain permits from other agencies for any future maintenance and/or repair episodes.
 - iv. At least 30 days prior to commencing any maintenance event, the Permittee shall notify, in writing, planning staff of the Coastal Commission's North Coast District Office. The notification shall include: a) a detailed description of the maintenance event proposed; b) any plans, engineering and/or geology reports describing the event; c) a construction plan that complies with all aspects of **Special Condition 3**; d) any other required agency authorizations; and e) any other supporting documentation describing the maintenance event. The maintenance event shall not commence until the Permittee has been informed by planning staff of the Coastal Commission's North Coast District Office that the maintenance event complies with this CDP. If the permittee has not been given a verbal response or sent a written response within 30 North Coast District Office, the maintenance event shall be authorized as if planning staff affirmatively indicated that the event complies with this CDP. The notification shall clearly indicate that the maintenance event is proposed pursuant to this CDP, and that the lack of a response to the notification within 30 days constitutes approval of it as specified in the permit. In the event of an emergency requiring immediate maintenance, the notification of such emergency episode shall be made as soon as possible, and shall (in addition to the foregoing information) clearly describe the nature of the emergency. The Permittee shall take all legally required follow up activities, and in no event take steps beyond the minimum required to abate the immediate emergency episode, and in compliance with all Coastal Act policies insofar as possible given the situation. The Permittee shall document all steps taken in a written report including photos, to be submitted within 3 days of the action undertaken pursuant to this section.
 - v. In addition to the emergency provisions set forth in subsection (c) above, nothing in this condition shall affect the emergency authority provided by Coastal Act Section 30611, Coastal Act Section 30624, and Subchapter 4 of Chapter 5 of Title 14, Division 5.5, of the California Code of Regulations (Permits for Approval of Emergency Work).

6. Implementation of Proposed Habitat Enhancement Plan

- A. The Applicant shall implement the Habitat Enhancement Plan for the site prepared by NRM Corporation dated July 20, 2017 and as proposed to be modified via email correspondence dated August 23, 2017, including, but not limited to, the following (as more specifically described in the Plan and email): (i) seeding areas disturbed by construction with a native seed mix in the fall months immediately following completion of construction and prior to the oncoming rainy season; (ii) planting a total of 12 native coastal shrub plants, including a minimum of three different species, along the length of the levee repair area or downstream of the levee repair area after the first fall rains following completion of construction of the authorized levee repair work; and (iii) monitoring the survival of plantings for a minimum of five years following completion of levee repair work with the final success goal of obtaining at least 80% native cover.
 - B. The Applicant shall submit monitoring reports to the Executive Director by December 31st of each monitoring year.
 - C. The permittee shall undertake development in conformance with the approved final plans unless the Commission amends this permit or the Executive Director issues a written determination that no amendment is legally required for any proposed minor deviations.
- 7. Assumption of Risk, Waiver of Liability, and Indemnity Agreement.** By acceptance of this permit, the Applicant acknowledges and agrees: (i) that the site may be subject to hazards, including but not limited to from waves, tidal inundation, and other hazards, many of which will worsen with future sea level rise; (ii) to assume the risks to the permittee 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.
- 8. Deed Restriction.** PRIOR TO ISSUANCE OF THIS PERMIT, the Applicant shall submit, for the review and approval of the Executive Director, documentation demonstrating that the applicant has executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

- 9. Archaeological Resources.** If an area of cultural deposits or human remains is discovered during the course of the project, all construction shall cease and shall not re-commence until a qualified cultural resource specialist, in consultation with the Wiyot Tribe, analyzes the significance of the find and prepares a supplementary archaeological plan for the review and approval of the Executive Director, and either: (a) the Executive Director approves the Supplementary Archaeological Plan and determines that the Supplementary Archaeological Plan's recommended changes to the proposed development or mitigation measures are *de minimis* in nature and scope, or (b) the Executive Director reviews the Supplementary Archaeological Plan, determines that the changes proposed therein are not *de minimis*, and the permittee has thereafter obtained an amendment to CDP 1-17-0514.

IV. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares as follows:

A. PROJECT DESCRIPTION

The Applicant proposes to repair an approximately 100-foot-long segment of an existing approximately 6,750-foot-long (on the subject property) earthen levee that is eroding and at risk of breaching. Proposed repairs consist of placing approximately 180 cubic yards of ¼-ton rock slope protection and 60 cubic yards of base rock and associated geotextile fabric on the slough side of the existing agricultural levee, within the original levee footprint, behind (landward of) the deteriorating low redwood timber retaining wall that demarcates the historic seaward extent of the levee. Project plans are included as **Exhibit 3**. Portions of the low wall have deteriorated and washed away, and as a result, a segment of levee behind the wall has sloughed off and eroded. Breaching of the levee at this location would result in the flooding of hundreds of acres of agricultural land with salt water from a tidal slough connected to Humboldt Bay, including pasture land that contains the City of Eureka's water main runs through the subject property, approximately 400 feet inland of the repair site.

As proposed, work would be conducted during the dry season period of August through mid-October during periods of low tide only. It is estimated that three low-tide windows would be needed to construct the rock base of the repair area, which involves excavating a 2-foot-deep (below low-flow water surface elevation) "key wall" in which base rock would be placed. Additional rock then would be benched for stability along a 1.5:1 (horizontal: vertical) slope to the existing top of levee.

During construction, access to the work area would be via an existing road within the agricultural lands, which leads on to the 12-foot-wide levee. Equipment and construction materials would be staged/stockpiled in the dry pasture adjacent to the levee. Although the pastureland is a seasonal wetland, work would be conducted when the land is dry, and no materials or equipment would be staged or stockpiled in wet areas. No new crossings or temporary crossings would be needed to access to work area. Silt fencing would be placed between staged/stockpiled materials and the freshwater wetland (inboard ditch) at the base of the landward side of the levee.

As part of the proposed development, the applicant proposes a habitat enhancement plan to offset the habitat impacts associated with the placement of revetment along the earthen levee. Habitat

impacts would occur to mostly nonnative herbaceous wetland vegetation currently growing on the slough-side of the levee as well as some salt marsh and mudflat habitat in the area behind the timber wall where the levee has eroded away. The stated goal of the proposed habitat enhancement plan is to establish a coastal scrub community along the top of the levee and riparian vegetation along the side of the levee within the project area. The enhancement area is approximately 1,200 square feet in size (100 feet long by 12 feet wide). Current non-native and invasive vegetation along the top of the levee would be replaced with a diversity of native trees and shrub species. The goal is to establish native woody vegetative cover along the levee to increase habitat values for the surrounding freshwater and estuarine wetlands. The plan is proposed to be implemented in the fall/winter period following completion of the proposed levee repair work.

Finally, the applicant proposes to undertake the proposed levee repair project using certain construction practices and Best Management Practices (BMPs) to protect surrounding wetlands, waters, and sensitive species. These include, but are not limited to, the following: (a) use of temporary turbidity barriers, silt fencing, erosion control blankets, and fiber rolls to minimize the potential for sediment to discharge into surrounding wetlands and waters during construction; (b) conducting work only during the dry season and, for work on the lower portion of the slough side of the levee, only during periods of low tide to protect water quality and minimize potential impacts to sensitive fish and frogs with the potential to occur in the project vicinity; (c) use of silt fencing and other erosion control devices around staging and stockpiling areas; (d) avoiding equipment use within freshwater and estuarine wetlands and waters; and (e) implementing spill prevention and control measures to prevent the discharge of hazardous materials into site soils and surrounding wetlands and waters.

B. ENVIRONMENTAL SETTING

The project site is located on Holland Ranch, an unincorporated agricultural property approximately 120 acres in size located immediately northeast of Eureka. The project area is along Fay Slough, a tidal tributary of Humboldt Bay. The slough is bordered by earthen levees constructed in the late 1800s/early 1900s for the purpose of converting estuarine marshland associated with Humboldt Bay to freshwater (seasonal wetland) pastureland for livestock grazing and other agricultural uses. The levees (also referred to as dikes) protect agricultural land from high tides, flooding and saltwater intrusion. There are over 10,000 acres of diked former tidelands around Humboldt Bay that are locally planned and zoned for agricultural uses under the Humboldt County LCP, included several thousand acres of lands within the Coastal Commission's retained CDP jurisdiction. These diked former tidelands function primarily as seasonal wetlands used for agriculture during the dry season (e.g., cattle grazing). Prior to the lands being diked off from the bay, today's seasonal agricultural lands (diked former tidelands) historically supported an extensive mosaic of estuarine, scrub, riparian, and forest habitats.

Fay Slough supports a number of rare, threatened, and endangered species including coho salmon (*Oncorhynchus kisutch*, federally and state-threatened), Chinook salmon (*O. tshawytscha*, federally threatened), steelhead trout (*O. mykiss irideus*, federally threatened), coast cutthroat trout (*O. clarkii clarkia*, state species of special concern), tidewater goby (*Eucyclogobius newberryi*, federally endangered), longfin smelt (*Spirinchus thaleichthys*, state endangered), and a number of other fishes. In addition, there are five federally designated critical

habitats in Fay Slough adjacent to the project area for coho and Chinook salmon, steelhead, tidewater goby, and green sturgeon (*Acipenser medirostris*). Furthermore, various rare plant species also occur in salt and brackish marsh habitats near the project area, including Humboldt Bay owl's clover (*Castilleja ambigua* ssp. *humboldtiensis*, California Rare Plant Rank 1B.2¹), Point Reyes bird's beak (*Chloropyron* [*Cordylanthus*] *maritimum* ssp. *palustre*, California Rare Plant Rank 1B.2), and Lyngbye's sedge (*Carex lyngbyei*, California Rare Plant Rank 2.2). A botanical survey completed for the project by the Applicant's consultant identified owl's-clover and Lyngbye's sedge in the project vicinity, but over 100 feet away from the project work area. Finally, sensitive bird species that forage in the vicinity include brown pelican (*Pelecanus occidentalis*), various species of herons and egrets, various species of diurnal raptors, and numerous other bird species. Humboldt Bay in general is an important link in the Pacific Flyway of migratory waterfowl, shorebirds, and other water-associated birds. The habitat provided at the project site and other wetlands around the bay are part of the complex ecosystem that supports hundreds of thousands of migrant and resident wildlife.

C. STANDARD OF REVIEW

The proposed project is located in the Commission's retained jurisdiction. Humboldt County has a certified local coastal program (LCP), but the site is within tidal areas and previously filled tidelands over which the state retains a public trust interest. Therefore, the 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 is a county-wide agency with permit jurisdiction over all tidelands, submerged lands, and other lands within and around Humboldt Bay. The District approved an administrative permit for the proposed project in June of 2016.

California Department of Fish and Wildlife

The project requires a Streambed Alteration Agreement from the Department. To ensure that the project ultimately approved by the Department is the same as the project authorized herein, the Commission attaches Special Condition 1, which requires the applicant to obtain all necessary approvals from the Department for the project prior to permit issuance.

North Coast Regional Water Quality Control Board

The project requires a Water Quality Certification from the Board. To ensure that the project ultimately approved by the Board is the same as the project authorized herein, the Commission attaches Special Condition 1, which requires the applicant to obtain all necessary approvals from the Board for the project prior to permit issuance.

State Lands Commission

¹ California Native Plant Society (CNPS). 2017. *Inventory of Rare and Endangered Plants* (online edition, v8-01a). CNPS. Sacramento, CA. <http://www.cnps.org/inventory>. **LIST 1B** = Rare, threatened, or endangered in California and elsewhere; **LIST 2** = Rare, threatened, or endangered in California but more common elsewhere; **0.2** = fairly endangered in California.

The project site is located in an area subject to the public trust. Therefore, to ensure that the applicant has the necessary authority to undertake all aspects of the project on these public lands, the Commission attaches Special Condition 2, which requires the applicant to obtain all necessary approvals from the State Lands Commission (SLC) for the project prior to permit issuance. The SLC has direct jurisdiction and authority over ungranted sovereign tidelands and submerged lands underlying the State's navigable waterways (ocean, bays, sloughs, lakes, and rivers) as well as over lands subject to the public trust.

U.S. Army Corps of Engineers

The Corps determined that the proposed project is eligible for coverage under Nationwide Permit No. 31 (Maintenance of Existing Flood Control Structures). An NWP is a general approval of the activity identified in that permit. Under NWP 31, the applicant is not required to submit a pre-construction notification to the Corps prior to commencing the proposed activity. Thus, the Corps' determination that the project is eligible for coverage under NWP 31 serves as the ultimate Corps approval of the project. The applicant is responsible for adhering to the general conditions specified in the NWP.

Pursuant to section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA), any applicant for a required federal permit to conduct an activity affecting any land or water use or natural resource in the coastal zone must obtain the Coastal Commission's concurrence in a certification to the permitting agency that the project will be conducted consistent with California's approved coastal management program. The Commission's review of the subject CDP application serves as Commission review of the project under the CZMA.

E. PERMIT AUTHORITY FOR REPAIR & MAINTENANCE

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 proposed project qualifies as a repair and maintenance project under Section 30610(d) of the Coastal Act and Section 13252(b) of the Commission's regulations because (1) the project does not involve an addition to, or an enlargement or expansion of, the subject levee, and (2) less than 50% of the structure is subject to proposed repairs (in this case 100 feet of a 6,750-foot-long levee on the subject property, none of which has been repaired in the past). The proposed project is designed to re-establish the portion of the levee that is eroding and at risk of breaching, within the original footprint of the levee, as delineated by the redwood timber wall remaining on the slough side of the levee base. This levee structure was originally constructed over 100 years ago.

Although certain types of repair projects are exempt from CDP requirements, section 13252 of the regulations requires a CDP for extraordinary methods of repair and maintenance enumerated in the regulation. The proposed repair work involves the placement of construction materials and placement of base and riprap materials in coastal waters and along the seaward side of the levee. The proposed repair project therefore requires a CDP under CCR section 13252(a)(3).

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 that proposed under the subject CDP application, can have adverse impacts on coastal resources, in this case wetlands, waters, and sensitive species adjacent to the project area, if not properly undertaken with appropriate mitigation. As described above and in the submitted plans, the applicant proposes to repair an approximately 100-foot-long segment of an existing earthen levee by placing approximately 180 cubic yards of ¼-ton rock slope protection and 60 cubic yards of base rock and associated geotextile fabric on the slough side of the existing levee, within the original levee footprint, behind (landward of) the deteriorating redwood timber retaining wall that demarcates the historic seaward extent of the levee. The applicant has included mitigation measures as part of its proposal, as discussed above, including enhancing 1,200 square feet in size of coastal scrub and riparian habitat adjacent to the project area, limiting work to periods to the dry season and to periods of low tide or work on the lower portion of the slough side of the levee and using standard appropriate BMPs to avoid sediment discharges to the slough. Although these and other measures proposed by the applicant are necessary to achieve conformity with the Chapter 3

policies of the Coastal Act, additional measures also are needed to avoid or minimize potential project impacts on water quality and adjacent wetland habitats and minimizes the risk of geologic hazards. The conditions required to meet these standards are discussed in the following findings. Therefore, as conditioned, the Commission finds that the proposed method of repair and maintenance is consistent with all applicable Chapter 3 policies of the Coastal Act.

F. PROTECTION OF COASTAL WATERS AND WATER QUALITY

Section 30230 of the Coastal Act states as follows:

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

Section 30231 of the Coastal Act states as follows:

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

Section 30232 of the Coastal Act states as follows:

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 containment 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...

As discussed above, the project site is located adjacent to and within Fay Slough. Most of the rock proposed to be placed to repair the existing rock slope protection will be placed in areas that

are covered at least periodically with shallow tidal water and are considered wetlands pursuant to section 30121 of the Coastal Act and section 13577(b) of the Commission's regulations. The existing earthen levee provides some intertidal and marsh habitat. Patches of salt marsh vegetation occur within a narrow one-to-two-foot wide strip along the length of the 100-foot-long project area within eroded voids at the base of the levee. The salt marsh vegetation is dominated by an invasive species, dense flowered cord grass (*Spartina densiflora*). The area currently does not provide significant salt marsh habitat because of the presence of the invasive grass and due to burial by the constant sloughing off of the levee face and the continued erosion of the levee. To enhance habitat values, the applicant proposes to plant the top and inboard side of the restored levee. The disturbed area will be seeded with native grass species such as *Bromus carinatus*, *Elymus glaucus*, and *Festuca rubra*. Native coastal shrubs will be planted onto the top and landside of the levee in the project area, including *Baccharis pilularis*, *Ceanothus thrysiflorus*, *Garrya elliptica*, *Mimulus aurantiacus*, *Morella californica*, *Ribes sanguineum* and *Lonicera involucrata*.

There is habitat within the vicinity of the project site for several rare plant species, two of which (Lyngbye's sedge and Humboldt Bay owl's clover) were detected in the project vicinity during seasonally appropriate surveys conducted for this project in 2016 and 2017. No rare plants were found within the project footprint itself, but rare plant populations were documented upstream and downstream from the site (the closest population was located 114 feet from the project footprint).

Alternatives

As set forth above, Coastal Act section 30233 states that wetland fill may only be approved when there is no feasible less environmentally damaging alternative. As noted above, 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. However, the proposed placement of rock revetment, which repairs the levee back to its original form, must be scrutinized to determine whether another material or configuration would be a less environmentally damaging feasible alternative.

Alternatives to the methods of the project are limited. Three alternatives to the proposed project have been identified, including: (1) the "no project" alternative, (2) the living shoreline alternative, and (3) a natural stacked log wall:

- The no project alternative would allow continued erosion of the earthen levee from high-energy slough currents, which eventually will cause a breach of the levee leading to the inundation and damage of the applicant's agricultural lands. In addition, further collapse of the levee will lead to more extensive erosion resulting in sedimentation and burial of wetland habitats.
- The living shoreline alternative, involving the use of native plantings in conjunction with a turf reinforcement mat, was considered but discounted for two reasons. First, establishment of vegetation along the toe of the levee at this location is infeasible due to flow velocities and extended periods of inundation. Second, a living shoreline would not be able to provide

protection below the toe of the slope, and shifts in channel thalweg (deepest part of the channel), located within 10 feet of the toe of the levee, would continue to erode the slope and further undermine the levee.

- The final alternative identified is a more natural bioengineering alternative wherein large logs and boulders would be stacked and vegetation planted along the eroded levee. However, such a design would not be sufficiently stable to withstand the consistent high-energy currents affecting this portion of the levee. The failure of a log pile wall could cause downstream impacts and exacerbation of site erosion, in addition to inundation of agricultural lands and loss of wetland habitat values.

For all of these reasons, the Commission finds that these other alternatives are not feasible less environmentally damaging alternatives to the proposed project as conditioned. Thus, the Commission finds that the proposed project is the alternative that best protects intertidal habitat and water quality from adverse effects of sedimentation erosion. In addition, as described below, the applicant proposes, and the special conditions require, a range of protective measures to limit adverse project impacts on sensitive coastal resources that might otherwise arise. Therefore, the Commission finds that there is no feasible less environmentally damaging alternative to the proposed project as conditioned, consistent with the requirements of section 30233(a) of the Coastal Act.

Feasible Mitigation Measures

The Commission must ensure that the method of repair and maintenance minimizes adverse environmental wetland effects consistent with Section 30233 and protects the biological productivity and the quality of coastal waters consistent with the requirements of Sections 30230 and 30231. As previously discussed, the proposed method of repair of the existing earthen levee will result in the placement of materials in and adjacent to the Fay Slough waters and freshwater wetlands. Existing mudflat and tidal marsh habitat will be filled with rock armoring material along the length of the repair area for an estimated total wetland impact of 800 square feet (100-ft-long by 8-ft-wide, from the mean high water line seaward, according to the typical section shown on the project plans). As such, there is a potential for project activities to adversely impact the water quality and habitat function of surrounding habitat areas. Unless appropriate protocols are followed, the proposed method of repair could result in the discharge or release of sediment, loose rock, construction materials and debris, coolants and petroleum products leaked from construction equipment, trash, or other pollutants into coastal waters and wetland habitat causing adverse impacts on water quality and marine resources within and adjacent to the project site. Of particular concern is the potential for deflected channel flow and/or energy across the channel causing erosion in a new location.

The applicant has proposed a number of measures to protect water quality and sensitive habitats. These measures include, but are not limited to, the following: (a) use of temporary turbidity barriers, silt fencing, erosion control blankets, and fiber rolls to minimize the potential for sediment to discharge into surrounding wetlands and waters during construction; (b) conducting work only during the dry season and, for work on the lower portion of the slough side of the levee, only during periods of low tide to protect water quality and minimize potential impacts to sensitive fish and frogs with the potential to occur in the project vicinity; (c) use of silt fencing and other erosion control devices around staging and stockpiling areas; (d) avoiding equipment use within freshwater and estuarine

wetlands and waters; and (e) implementing spill prevention and control measures to prevent the discharge of hazardous materials into site soils and surrounding wetlands and waters.

In general, the measures as proposed by the Applicant are necessary and appropriate to protect water quality and sensitive habitats consistent with the requirements of the Coastal Act. However, in some cases the particular best management practices (BMPs) proposed to be used do not go far enough in minimizing the potential for project related impacts to the slough channel and nearby habitat. For example, the proposed measures do not specify a plan for the disposal of excess sediment and vegetative spoils associated with the excavation of the repair site, nor do they provide for maintaining the repair site should any of the rock or other material proposed for repairs becomes dislodged after completion of repairs. To ensure that all feasible mitigation measures needed to minimize adverse environmental effects from construction-related impacts are implemented, the Commission attaches Special Conditions 3, 4, and 5:

- **Special Condition 3** outlines general construction standards and responsibilities that must be adhered to, along with timing provisions for construction and BMPs designed to maintain water quality and the marine environment. The area of the property in proximity to the levee repair site is assumed to be seasonal wetland that is dry during the summer when work is proposed. It is not feasible to avoid all of the area that is comprised of seasonal wetland for project staging, but Special Condition 3 requires that staging areas be kept 50 feet or more away from coastal waters, drainage courses, and areas exhibiting wetland hydrology during the seasonal work period. These requirements will minimize adverse impacts to the seasonal wetlands by confining staging to areas that are dry during construction.
- **Special Condition 4** requires submittal of debris disposal details prior to permit issuance to ensure that excess soil, vegetation, remnants of the redwood timber retaining wall, and other debris generated by excavation of the levee repair area will be disposed of lawfully.
- **Special Condition 5** specifies standards for the levee repair, including requirements that the repairs be performed consistent with the approved engineering plans, that the alignment of the repairs shall encroach no further seaward than the existing remnant timber retaining wall that demarcates the historic footprint of the levee toe, and that the Applicant submit a follow-up monitoring report within one year of completion of construction that assesses any migration or movement of rock at the site and includes recommendations for repair, maintenance, modifications or other work to the levee.

All of these mitigation measures required by the special conditions are feasible and have been provided to minimize adverse environmental effects consistent with section 30233 of the Coastal Act.

As described above, the combination of the applicant's proposed avoidance and mitigation measures and the Commission's special conditions will minimize adverse effects to coastal waters, wetlands, and sensitive species. Nonetheless, the proposed maintenance work along the existing levee will still require the placement of rock fill within coastal waters – specifically within estuarine wetlands of Fay Slough. Existing mudflat and tidal marsh habitat will be filled

with rock armoring material along the length of the repair area for an estimated total wetland impact of 800 square feet (100-ft-long by 8-ft-wide, from the mean high water line seaward, according to the typical section shown on the project plans). As such, in order to provide feasible mitigation measures to minimize adverse environmental effects the proposed wetland fill impacts consistent with section 30233 of the Coastal Act, the impacts to the slough habitat must be fully mitigated. As noted in Finding IV-A above, as part of the proposed development, the applicant proposes a habitat enhancement plan to offset the habitat impacts associated with the placement of revetment along the earthen levee. Habitat impacts would occur to mostly nonnative herbaceous wetland vegetation currently growing on the slough-side of the levee as well as some salt marsh and mudflat habitat in the area behind the timber retaining wall where the levee has eroded away. The stated goal of the proposed habitat enhancement plan is to establish a coastal scrub community along the top of the levee and riparian vegetation along the side of the levee within the project area. The vegetation enhancement area is approximately 1,200 square feet in size (100 feet long by 12 feet wide), spanning the length of the repair area. Current non-native and invasive vegetation along the top of the levee would be replaced with a diversity of native trees and shrub species. The goal is to enhance wetland habitat by establishing native woody vegetative cover along the levee.

Riparian forest and scrub habitats historically occupied approximately half of the coastal plains around the bay and today represent only a fraction of that area. The U.S. Fish and Wildlife Service (FWS) has indicated that restoration of these habitats around Humboldt Bay is a high priority for the protection, enhancement, and restoration of native fish, wildlife, and plant communities. Humboldt Bay and its surrounding habitats are an important stopover point for hundreds of species of birds as they travel the Pacific Flyway, an “aerial highway” used by birds that nest in the far north and migrate to wintering areas in North and South America. Scrub and riparian habitats in particular are crucial for many migratory and resident bird species that need the habitat for nesting, roosting, and foraging. Additionally, the wetland habitats around Humboldt Bay, including riparian zones, are important for over 40 species of mammals and over 100 species of fish and marine invertebrates.

In this case, because the fill associated with the repair work will only replace previously placed levee fill that was washed away just in the past year, the Commission finds that it is not necessary to create new mudflat and tidal marsh wetland habitat to minimize adverse environmental effects of the proposed wetland fill. However, feasible mitigation measures must be employed to minimize adverse environmental wetland effects to the wetland vegetation currently growing on the slough-side of the levee and protect the biological productivity and the quality of coastal waters consistent with the requirements of Sections 30230, 30231, and 30233 of the Coastal Act. Due to the widespread reduction of native coastal scrub and riparian habitats in the Humboldt Bay region over the past century, restoration consisting of coastal scrub and riparian habitats will produce tangible benefits for these native habitat types. Marine riparian zones, including riparian and coastal scrub vegetation along tidal sloughs, serve similar functions to those described for freshwater systems and are likely to provide additional functions unique to nearshore ecosystems (Brennan & Culverwell 2004). Riparian areas contribute important organic debris that is transformed into nutrients, which support the marine food web. Wood, leaf litter, and other organic matter from riparian areas provide nutrients for life at the base of the food web. Riparian vegetation also supports insects and other prey resources, which are eaten by juvenile

salmon and other fish and wildlife. Riparian areas capture contaminants; by absorbing or filtering contaminated stormwater runoff, soils and vegetation in marine riparian areas can prevent pollutants from entering coastal waters. Healthy riparian areas support rich and diverse communities of animals that depend on the areas for feeding, breeding, refuge, movement, and migration. Salmonids and many other fish species feed on insects from marine riparian areas. If these areas are altered or eliminated, the food supply and, thus, the abundance of nearshore fish is likely to be reduced. Importantly, riparian areas serve as buffers for human health and safety. The marine riparian functions of water quality, soil stability, and the ability to absorb the impacts of storm surges and other natural, physical assaults on shorelines have direct benefits to humanity. Flooding and storm events can be exacerbated in the absence of marine riparian areas, which can serve as protective buffers. Thus, the restoration of riparian habitat in the Humboldt Bay area is integral to maintaining optimum populations of marine organisms that inhabit the slough environment, consistent with the mandates of section 30231 of the Coastal Act.

Therefore, the Commission imposes **Special Condition 6** to require that the Applicant successfully implement the proposed habitat enhancement plan to establish a coastal scrub community along the top of the levee and riparian vegetation along the side of the levee within the project area.

Conclusion

In conclusion, the Commission finds that the method of proposed repair and maintenance as conditioned herein (1) uses the least environmentally damaging feasible alternative; (2) provides feasible mitigation measures to minimize adverse environmental effects; and (3) protects the biological productivity and the quality of coastal wetlands and waters, consistent with Sections 30230, 30231, and 30233 of the Coastal Act.

G. HAZARDS

Section 30253 of the Coastal Act 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...*

The existing levee repair site is located along Fay Slough at a bend in the slough where the channel has cut southward over the past year, exacerbating erosion at the subject site. The levee banks are steep and undercut by bank erosion on the slough side from currents that carry water directed at the affected portion of the levee. As such, portions of the bank are beginning to fail resulting in vertical cuts and overhangs along the area proposed for repairs. The proposed riprap-based repair work is necessary to repair damage from these hazards and strengthen the levee against further damage from such hazards. Levee failure at this location could result in

significant impacts to the Applicant's agricultural property and to the City of Eureka's water main that runs through the property approximately 400 feet from the subject site.

To assure the structural integrity and stability of the repaired levee, the repairs have been engineered. The quarry rock to be used in the repairs and the design meet appropriate engineering specifications. An engineering report submitted with the application concludes that erosion along the ends of the repair site is not expected because the current velocities are not expected to exceed the scouring velocities. In addition, the ends of the revetment incorporate a tapered design consistent with FHWA bank stabilization engineering standards to further minimize the potential for continued erosion of the levee at those locations. The engineering report also evaluates the potential for the proposed rock revetment to deflect channel flow or energy across the channel and cause erosion of other levees flanking the slough. The report concludes that such effects are unlikely, because the proposed revetment project will not change the alignment of the slough channel and thus will not change the flow path of slough waters.

To ensure that the repairs conform to the plans that have been determined to be acceptable, the Commission attaches **Special Condition 5-A**. This condition requires that the repairs to the levee be performed consistent with the submitted plans. In addition, Special Condition 5-D is imposed to require monitoring of the repair site to ensure the levee continues to function as intended and without any off-site erosion impacts caused by the repair design. Furthermore, Special Condition 5-E specifies maintenance standards for the repair area, including requirements for the Applicant to remove or redeposit any debris, rock, or material that becomes dislodged after completion of the approved shoreline protection as soon as possible after such displacement occurs.

Due to the uncertain nature and inherent risk associated with the construction of improvements in high energy coastal environments, the Commission attaches **Special Condition 7**. Special Condition 7 requires the applicant to assume the risks of extraordinary erosion and flood hazards along the slough 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. To ensure that all future owners of the property are aware of the flood hazard present at the site, the Commission's immunity from liability, and the indemnity afforded the Commission, **Special Condition 8** requires recordation of a deed restriction that imposes the special conditions of the permit as covenants, conditions, and restrictions on the use of the property.

The Commission finds that as conditioned, the method of proposed repair and maintenance 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.

H. ARCHAEOLOGICAL RESOURCES

Section 30244 of the Coastal Act states:

Where development would adversely impact archeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

The Wiyot, a Native American tribe, is known to have settled along the Humboldt County coast within the general vicinity of the subject property. Today the Wiyot Tribe is represented by Tribal Historic Preservation Officers from the Blue Lake Rancheria, the Table Bluff Reservation, and the Bear River Band of the Rohnerville Rancheria.

To ensure protection of any cultural resources that may be discovered at the site during construction of the proposed project, the Commission attaches **Special Condition 9**. This special condition requires that if an area of cultural deposits is discovered during the course of the project, all construction must cease and a qualified cultural resource specialist must analyze the significance of the find. To recommence construction following discovery of cultural deposits, the permittee is required to submit a supplementary archaeological plan for the review and approval of the Executive Director, who determines whether the changes are de minimis in nature and scope, or whether an amendment to this permit is required.

Therefore, the Commission finds that the method of proposed repair and maintenance, as conditioned, is consistent with Coastal Act section 30244.

I. PUBLIC ACCESS

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

The project will not adversely affect public access to the shoreline. Although the project site is on a tidal slough, the site is surrounded by private lands, and any access to the site via water is limited to kayak, canoe or other small personal watercraft. No public access is available along the levee itself, and the project will not interfere with kayak access along Fay Slough. Nearby bays and the open coastal shoreline beyond these bays provides numerous opportunities for coastal access and recreation for the public. For all of these reasons, the Commission finds that

the method of proposed repair and maintenance as conditioned, which does not include provision of public access, is consistent with the public access policies of the Coastal Act.

J. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

The Humboldt Bay Harbor, Recreation and Conservation District served as the lead agency for the project for CEQA purposes. The District determined the work to be categorically exempt under CEQA.

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 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 method of proposed repair and maintenance, as conditioned to mitigate the identified impacts, can be found consistent with the requirements of the Coastal Act to conform to CEQA.

APPENDIX A
SUBSTANTIVE FILE DOCUMENTS

Application File for Coastal Development Permit No. 1-17-0514

Humboldt County Local Coastal Program