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W10b

MEMORANDUM

Date: October 4, 2011

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To: Commissioners and Interested Parties

From: Charles Lester, Executive Director
Robert Merrill, District Manager – North Coast District
Melissa Kraemer, Coastal Program Analyst – North Coast District

Subject: **Addendum to Commission Meeting for Wednesday, October 5, 2011**
North Coast District Item W10b
CDP No. 1-10-032 (Humboldt County Resource Conservation District)

Staff is making certain changes to the September 23, 2011 staff recommendation on Coastal Development Permit Application No. 1-10-032. Since publication of the staff report, the applicant has requested a number of minor changes to various special conditions and also has provided staff with new information that was not considered during preparation of the staff report, which necessitates a change to recommended Special Condition No. 22 regarding public access. In addition, the Commission has received correspondence on the project from Congressman Mike Thompson, which is added to the staff report as Exhibit No. 25.

The change to the public access special condition and related findings was prompted by concerns expressed by Department of Fish and Game (DFG) land management staff, the applicant, and adjacent property owners. DFG staff expressed the concern that since the restoration project has not been completed yet, at this time it is unknown where important wildlife refugia areas may develop in the future on the restored property and which areas could support public access in a manner that would not disturb fragile coastal resources (e.g., resting migratory waterfowl). DFG believes it is important that the development of a public access plan for the property incorporate habitat monitoring results and site-specific observations of usage of the restored areas by sensitive wildlife to ensure that the plan provides for public access in a time, place, and manner that adequately protects fragile coastal resources. In addition, DFG staff expressed a concern that opening the area to regular public access would encumber the agency's ability to adequately manage and regulate the area given its severely limited staff resources. The issues of illegal dumping, vandalism, improper usage of the site (e.g., impermissible unleashed dog access), and

molestation of surrounding agricultural uses all are concerns shared by DFG staff, the applicant, and surrounding property owners. Furthermore, DFG staff explained that its regulations require that particular management standards and regulations must be developed and adopted for new property acquisitions prior to opening an area to public access, which is a process that takes time and has not yet occurred for the subject property. Moreover, both DFG and the applicant strongly believe that the development of a public access plan for the property must involve local community participation and support to determine the most appropriate vehicular access routes to the property, parking areas, allowable usage types, areas, and intensities, and other factors to ensure that public safety needs and the rights of private property owners are protected. Finally, the applicant raised a concern expressed by a landowner (of APN 100-111-002) adjacent to the subject DFG property that the western-most approximately 1,000-foot-long segment of Riverside Road is held in private ownership, and DFG maintains merely an access easement over that portion of the road. Currently, vehicular access to the DFG-owned property is limited to Riverside Road.

Recommended Special Condition No. 22 requires the submittal of a public access plan for the provision of public access at the DFG-owned property known as Riverside Ranch. Preparation of the public access plan required by the special condition will afford the opportunity for the various issues raised by the applicant, DFG, and the public to be evaluated and for a final public access plan to be prepared that ensures that maximum public access will be provided in a manner that protects fragile coastal resources and agricultural resources. Staff agrees with the assertion that more time is needed to develop and implement the public access plan for the DFG-owned property known as Riverside Ranch and has revised the condition to require submittal of the plan for the review and approval of the Executive Director within two years of completion of Phase 1 of the development, rather than prior to the commencement of development (other than vegetation removal), and to require implementation of the public access plan within one year of approval of the plan as shown in Section I-A below. Staff has investigated the assertion that the latter portion of Riverside Road is privately owned and has found no evidence to support that assertion. On the contrary, according to staff from the Real Property Services Division of the Humboldt County Public Works Department who research County right-of-ways, Riverside Road (County Road No. 2H015) is maintained by the County from its junction with Dillon Road for a distance of approximately 0.96-mile. County staff expressed the belief that although the maintenance segment of the road is shorter than the actual road length, the entirety of Riverside Road is held in public ownership. In other words, County staff believes Riverside Road may be a public right-of-way in its entirety (i.e., all the way to the DFG-owned property), but it's only a publicly-maintained right-of-way for 0.96-mile from its junction with Dillon Road (i.e., to a point about 1,000 feet short of the DFG-owned property). County staff recommended the review of preliminary title reports for both the subject DFG property and adjacent property (APN 100-111-002) to verify this claim. Staff agrees with the applicant and DFG that the development of any public access plan for the DFG-owned property known as Riverside Ranch must include an analysis of establishing alternative public vehicular access to the property. The revised condition would allow consideration of alternatives for vehicular access using Riverside Road, Camp Weott Road, Dillon Road, or Port Kenyon Road. In addition, if some other currently unidentified

vehicular access alternative is identified as the best alternative, the condition allows the applicant to seek an amendment to the permit to allow for the use of such an alternative.

Besides the changes to the condition to require evaluation of vehicular access alternatives, changes to Special Condition No. 22 would reduce the number of weekends that the public access area must be made available for public use from year-round to three quarters of the year (39 weekends) and would require that an access trail be established on a minimum of half of the 11,000-foot-long setback levee rather than the entire length of the setback levee to provide flexibility for planning for wildlife refugia and avoiding public access impacts to sensitive wildlife during sensitive time periods for the wildlife. Should DFG or the permittee demonstrate that this revised amount and frequency of required public access use cannot be provided consistent with the protection of fragile coastal resources and agricultural resources on the subject property, the applicant may seek a Commission amendment to this coastal development permit to change the required availability of public access.

The staff revisions to Special Condition No. 22 are shown in Section I-A below.

The minor changes staff has made in response to the applicant's requests to various other special conditions as described below in Section I-B are intended to promote clarity, change the timing for condition compliance, or allow for minor changes to specified methodology or standards. The reasons for each recommended change to the conditions follow each recommended revised condition.

Staff continues to recommend that the Commission approve the project with the special conditions included in the staff recommendation of September 23, 2011, as modified by the revisions described below.

I. REVISIONS TO RECOMMENDED SPECIAL CONDITIONS

A. Changes to the Public Access Special Condition

Staff is recommending modifications to the text of Special Condition No. 22 on pages 29-31 of the September 23, 2011 staff report as follows (text to be deleted is shown in ~~strikethrough~~; text to be added appears in **bold double-underline**):

~~**22. Final Public Access Plan**~~

~~(A) **PRIOR TO DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL, OR SUCH ADDITIONAL TIME AS THE EXECUTIVE DIRECTOR MAY GRANT FOR GOOD CAUSE**, the applicant shall submit, for the review and approval of the Executive Director, a final public access plan providing for public access at Riverside Ranch within two years of completion of the authorized Phase 1 construction activities.~~

~~1. The plan shall demonstrate all of the following:~~

~~a. Public access amenities shall be provided at Riverside Ranch within two years of completion of the authorized Phase 1 construction activities.~~

~~b. Public access amenities shall include, at a minimum:~~

~~(i) Public parking for a minimum of six to eight vehicles;~~

~~(ii) A trail suitable for foot traffic on top of and along the entire length of the new setback berm;~~

~~(iii) A viewing platform at the seaward end of the setback berm trail;~~

~~(iv) At least two interpretive panels or signs describing the restoration project and/or issues, information, and history related to the Eel River Estuary. A minimum of one interpretive panel/sign shall be co-located with the viewing platform, and at least one interpretive panel/sign shall be located at or near the parking area near the beginning of the berm trail; and~~

~~(v) Access for non-motorized boating located at or near the parking area.~~

~~c. All public access areas and amenities shall be available to the general public free of charge at a minimum during daylight hours (i.e., one hour before sunrise to one hour after sunset) each weekend of the year.~~

~~2. The plan shall include, at a minimum, the following:~~

~~a. A clear depiction of all proposed public access areas and amenities, including, but not limited to, all parking areas, trails, walkways, boating access points, restrooms, bench seating, trash and recycling receptacles, bicycle racks, and/or other public access amenities as proposed;~~

~~b. Clear identification of all parameters for use of the site by the public, including hours and days of admittance, types of access available (e.g., pedestrian or other user group access, whether or not dogs are allowed, etc.), and other applicable parameters;~~

~~c. A signage plan identifying all signs and any other project elements that will be used to facilitate, manage, and provide public access to the approved project, including identification of all public education/ interpretation features that will be provided on the site (educational displays, interpretive signage, etc.). Sign details showing the location, materials, design, and text of all public access signs shall be provided. Signs shall be designed so as to provide clear information without impacting public views and site character. At a minimum, one public access interpretive sign with appropriate (to Eel River Estuary) issues, information, and history shall be placed both at the public viewing platform at the seaward of the berm trail and also at at least one location at or near the parking area. Public access signage shall acknowledge the~~

~~participants in the design and provision of the public access components, including the California Coastal Commission.~~

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

22. Final Public Access Plan

(A) WITHIN TWO (2) YEARS OF COMPLETION OF PHASE ONE (1) CONSTRUCTION, the permittee shall submit, for the review and approval of the Executive Director, a final public access plan providing for public access at the Department of Fish and Game-owned property known as Riverside Ranch.

(1) The plan shall demonstrate all of the following:

a. A boating put-in and/or take-out access point for at least non-motorized boating use shall be developed on the Riverside Ranch Property to provide boating access to the property for the public.

b. Vehicular access to the Riverside Ranch property shall be provided either via (i) Riverside Road unless the permittee demonstrates to the satisfaction of the Executive Director that the portions of Riverside Road needed to gain access to the Riverside Ranch property are not publically owned, (ii) Camp Weott Road, Dillon Road, or Port Kenyon Road with a vehicular or footbridge over the Salt River to the Riverside Ranch property if the selected alternative is demonstrated to be feasible to the satisfaction of the Executive Director, or (iii) another public vehicular access alternative approved by a Commission amendment to this coastal development permit.

c. Public access amenities shall be provided at the subject property within one year of approval of the approved final public access plan.

d. Public access amenities shall include, at a minimum all of the following:

(i) Public vehicular parking;

(ii) A trail suitable for foot traffic on top of and along at least half the length of the new setback berm unless the permittee: (a) demonstrates that access along half of the setback berm cannot be provided consistent with the protection of fragile coastal resources and agricultural resources on the subject property, and (b) obtains a Commission amendment to this coastal development permit to reduce the amount or change the location of the required public access; and

(iii) Signage delineating the public access areas to facilitate public use.

e. All public access areas and amenities shall be available to the general public free of charge at a minimum during daylight hours (i.e., one hour before sunrise to one hour after sunset) and for a minimum of 39 weekends of the year unless the permittee (i) demonstrates that access during those hours or number of weekends cannot be provided consistent with the protection of fragile coastal resources and agricultural resources on the subject property, and (ii) obtains a Commission amendment to this coastal development permit to change the required availability of public access.

(2) The plan shall include, at a minimum, the following components:

a. A narrative and site plan showing how public vehicular access will be provided to the property and which demonstrates that (i) the route of the access alternative is legally available for use by the public and (ii) all necessary permit authorizations from public agencies for improvement of the access alternative can be obtained for the alternative;

b. An analysis, based on applicable monitoring results reported pursuant to Special Condition No. 2 and/or other property-specific scientific data and/or factors, explaining which portions of the property are suitable for public access and recreational uses consistent with the protection of fragile coastal resources and agricultural uses on the subject property;

c. An analysis, based on applicable monitoring results reported pursuant to Special Condition No. 2 and/or other property-specific scientific data and/or factors, explaining what intensity of use (e.g., frequency and timing of use in terms of hours per day or days per week or months per year) and what types of uses are appropriate for public access and recreational uses at the property consistent with the protection of fragile coastal resources and agricultural uses on the subject property;

d. Discussions of the regulations and management that will be used to facilitate, manage, and provide public access to the approved project.

e. A clear depiction of all proposed public access areas and amenities, including, but not limited to, all parking areas, trails, walkways, boating access points, restrooms, bench seating, trash and recycling receptacles, bicycle racks, and/or other public access amenities as proposed;

f. Clear identification of all parameters for use of the site by the public, including hours and days of admittance, compatible types of public access use, and other applicable parameters; and

g. A signage plan identifying all signs and any other project elements that will be used to facilitate, manage, and provide public access to the approved project, including, if applicable, identification of all public education/interpretation features that will be provided on the site (educational displays, interpretive signage, etc.). Sign details showing the location, materials, design, and text of all public access signs shall be provided. Signs shall be designed so as to provide clear information without impacting public views and site character. Public access signage shall acknowledge the participants in the design and provision of the public access components, including the California Coastal Commission.

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

B. Minor Changes to Various Other Special Conditions

The applicant has requested various minor changes to a number of special conditions to promote clarity, change the timing for condition compliance, or allow for minor changes to methodology or standards specified in the special conditions. For the sake of brevity, only the relevant portions of the conditions with recommended changes are shown below. Staff is recommending modifications to the text of the portions of Special Condition Nos. 2, 3, 4, 5, 10, 12, 13, 21, and 24 on pages 9 through 31 of the September 23, 2011 staff report as follows (text to be deleted is shown in ~~strikethrough~~; text to be added appears in **bold double-underline**):

2. Final Revised Habitat Monitoring & Reporting Program

(A) **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the review and written approval of the Executive Director, a final revised habitat monitoring and reporting program that substantially conforms with the plan prepared by H.T. Harvey & Associates titled "Salt River Ecosystem Restoration Project Habitat Mitigation and Monitoring Plan" dated May 4, 2011, except that the plan shall be revised to include provisions for all of the following:

…

5. A map of the Riverside Ranch tidal restoration areas with ~~0.5~~ **1**-foot elevation contours shall be submitted for the review and approval of the Executive Director

within six months following completion of all restoration grading, filling, and dredging within the tidal restoration areas.

…

17. Only native and/or non-persistent, non-invasive **and/or pasture mix** plants shall be used in all proposed plantings and seed mixes to be used in the project consistent with the requirements of Special Condition No. 12.

…

Reason for recommended change: The purpose of the change to subsection (A)-5 of the special condition is to allow for submittal of map that uses a less-intensive (in terms of mapping effort) elevational standard than previously recommended that the Commission's ecologist believes still will be adequate to accomplish the objective of ensuring that the tidal restoration area has been built to the appropriate elevations. The purpose of the change to subsection (A)-17 of the special condition is to allow for existing pastures on private lands in the project area that may be temporarily impacted by construction activities (e.g., by establishment of temporary construction access routes across pastures) that are proposed to be restored to pasture use to be planted with a pasture seed mix suitable for livestock grazing, consistent with the recommended change to Special Condition No. 12 shown below.

3. Construction Responsibilities & Standards

The authorized work shall comply with the following construction responsibilities and standards:

…

(H) The following seasonal restrictions shall apply to the authorized construction work:

1. Out-of-channel grading, excavation, and other earth-moving activities shall only be conducted during the dry season period of June 1 through October 15 except as provided below. If rainfall is forecast during the time construction activities are being performed, ~~any exposed soil areas shall be promptly mulched or covered with plastic sheeting and secured with sand bagging or other appropriate materials before the onset of precipitation~~ **BMPs shall be implemented in conformance with the final SWPPP approved pursuant to Special Condition No. 4**. Any grading excavation, and other earth-moving activities that cannot feasibly be conducted within the June 1 through October 15 time period may be conducted between April 15 and May 31 and/or between October 16 and November 30 subject to the following conditions:

a. All work shall cease upon the onset of precipitation at the project site and shall not recommence until the predicted chance of rain is less than 40 percent for the Ferndale area;

b. The work site(s) shall be winterized between work cessation periods by installing stormwater runoff and erosion control barriers around the perimeter of each construction site to prevent the entrainment of sediment into coastal waters;

c. Adequate stocks of stormwater runoff and erosion control barrier materials shall be kept onsite and made available for immediate use.

2. In-channel construction and maintenance activities shall be limited to (a) the dry season period of June 1 through November 30 only, subject to subsections 1.a-c above; and (b) any more restrictive time period within the June 1-November 30 timeframe if required by NOAA-Fisheries, Fish & Wildlife Service, or the Department of Fish & Game.

…

(J) Excess ground water shall **not** be pumped **or discharged** into ~~upland~~ **wetland** areas on surrounding fields **outside of the project area footprint** to prevent sediment-laden water from entering coastal waters or wetlands;

…

Reason for recommended change: The purpose of the change to subsection (H)-1 of the special condition is to promote consistency, with respect to stormwater runoff control and related BMPs, between the construction standards of this special condition and those of the final SWPPP required by Special Condition No. 4. The purpose of the change to subsection (J) is to clarify that excess groundwater may be pumped if needed to surrounding fields within the project area regardless of their wetland/upland status during construction, since the project area will ultimately be either restored or substantially altered to various habitat types by the end of the two phases of construction. However, excess groundwater must only be discharged during construction to upland areas outside of the project footprint to ensure that no sediment-laden water discharges to coastal wetlands (transitional agricultural lands) inconsistent with the water quality protection provisions of Section 30231 of the Coastal Act.

4. Final Storm Water Pollution Prevention Plan

(A) **PRIOR TO COMMENCEMENT OF DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL**, the applicant shall submit, for the review and approval of the Executive Director, a final Storm Water Pollution Prevention Plan (SWPPP) for Phase 1 construction activities. **PRIOR TO COMMENCEMENT OF PHASE TWO (2) DEVELOPMENT**, the applicant shall submit, for the review and

approval of the Executive Director, a final SWPPP for Phase 2 construction activities. The final SWPPPs shall include provisions for all of the following:

1. Runoff from the project site shall not increase sedimentation in coastal waters ~~or wetlands during construction or~~ post-construction**. During construction runoff from the project site shall not increase sedimentation in coastal waters beyond what's allowable under the final Water Quality Certification approved for the project by the North Coast Regional Water Quality Control Board**;

…

Reason for recommended change: The purpose of this change is to acknowledge that some level of incidental sedimentation to coastal waters may result from stormwater runoff during construction but that such sedimentation shall not exceed North Coast Regional Water Quality Control Board standards.

5. Final Construction Plans

(A) **PRIOR TO COMMENCEMENT OF DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL,** the applicant shall submit, for the review and approval of the Executive Director, final plans for Phase One (1) construction that substantially conform with the Phase 1 construction 75 percent plans prepared by Kamman Hydrology & Engineering, Inc. dated May 2011 and which are consistent with all Special Conditions of Coastal Development Permit No. 1-10-032;

(B) **PRIOR TO COMMENCEMENT OF PHASE TWO (2) DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL**, the applicant shall submit, for the review and approval of the Executive Director, both of the following:

1. Final plans for Phase Two (2) construction that substantially conform with the Phase 2 construction 50 percent plans prepared by Winzler & Kelly and Michael Love & Associates dated May 2011 and which are consistent with all Special Conditions of Coastal Development Permit No. 1-10-032; and

2. Final project plans for the construction of the Francis Creek culvert replacement at Port Kenyon Road that substantially conform with the preliminary plans prepared by Humboldt County dated January 7, 2011.

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

…

Reason for recommended change: The purpose of this change is to grant flexibility in the required timing of final plan submittal, as all Phase 2 development other than authorized vegetation removal is planned for the spring/summer of 2013, while the "authorized vegetation removal" referenced in the special condition is planned for the summer/fall of 2012.

10. Protection of Bird Breeding & Nesting Habitat

(A) **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the permittee shall submit, for the review and written approval of the Executive Director, a Sensitive Bird Nesting Habitat Protection Plan, prepared by a qualified biologist, for conducting seasonally appropriate pre-construction surveys for sensitive bird nesting habitat in the project area and protecting such habitat from construction impacts. The plan shall include, at a minimum, the following:

1. Provisions for surveying the project area each year by a qualified biologist according to current Department of Fish and Game protocols no more than one week prior to commencement of construction activities proposed to occur that year during the bird breeding and nesting season (March 1 through August 15) for the presence of active nesting habitat;

2. Provisions for avoiding **construction** activities **other than vehicular use of roads** during the nesting season(s) within 100 feet of an occupied nest of any native migratory bird species; within 300 feet of an occupied nest of any special-status bird species; and within 500 feet of an occupied nest of any raptor species. No-disturbance buffers around active nests shall be maintained until completion of nesting.

…

Reason for recommended change: The purpose of this change is to provide clarity to the condition and to the types of activities that must be avoided during the nesting season. The applicant envisions that vehicular use may occur on the project site during the nesting season but agrees with the stipulation of the special condition prohibiting construction activities within the various specified distances of occupied nests.

12. Revegetation Standards & Limitations

(A) Only native plant species shall be planted in the proposed restoration areas. All proposed plantings shall be obtained from local genetic stocks within Humboldt County. If documentation is provided to the Executive Director that demonstrates that native vegetation from local genetic stock is not available, native vegetation obtained from genetic stock outside of the local area may be used. No plant species listed as problematic and/or invasive by the California Native Plant Society, the California Invasive Plant

Council, or as may be identified from time to time by the State of California shall be employed or allowed to naturalize or persist on the site. No plant species listed as a "noxious weed" by the governments of the State of California or the United States shall be utilized within the project area.

(B) For the proposed soil stabilization and erosion control applications, regionally appropriate native plants shall be used if feasible. If infeasible (e.g., on privately owned pasturelands disturbed by temporary construction impacts proposed to be restored to agricultural production), the use of nonnative species or varieties may be used [e.g., sterile, short-lived, non-persistent cereal grasses such as barley (*Hordeum vulgare*), buckwheat (*Fagopyron esculentum*), rye (*Secale cereale*), and wheat (*Triticum aestivum*)] only if the proposed species or varieties are known not to persist or spread in the ecosystem. **Alternatively, the pasture mix proposed in the May 4, 2011 Habitat Mitigation and Monitoring Plan may be used in areas proposed to be restored to pasture grazing use**.

…

Reason for recommended change: The purpose of this change is to allow for existing pastures on private lands in the project area that may be temporarily impacted by construction activities (e.g., by establishment of temporary construction access routes across pastures) that are proposed to be restored to pasture use to be planted with a pasture seed mix suitable for livestock grazing.

13. Final Sediment Reuse Plans

(A) **PRIOR TO COMMENCEMENT OF ~~DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL~~ PHASE TWO (2) CONSTRUCTION AND PRIOR TO THE PLACEMENT OF EXCAVATED SEDIMENTS ON ANY AGRICULTURAL PROPERTY**, the applicant shall submit, for the review and approval of the Executive Director, **a** final sediment reuse plan~~s~~ for ~~each~~ **the** agricultural property proposed to receive excavated sediments ~~from Phase 2 construction~~. Each sediment reuse plan shall provide that no excavated sediments shall be placed either within any wetlands located on or immediately adjacent to the subject property or within wetland buffer areas as proposed in the example sediment reuse plan included as Appendix E of the document titled "Wetland Buffer Assessment for Sediment Reuse Areas on Agricultural Lands" prepared by Winzler & Kelly dated August 2011. The final sediment reuse plans shall substantially conform to the example sediment reuse plan, except that each plan shall be made site-specific for each property and shall include the following additional provisions:

…

Reason for recommended change: The purpose of this change is to grant flexibility in the required timing of final plan submittal since the majority of excavated sediment proposed for reuse on surrounding agricultural uplands will be associated with Phase 2 development other than vegetation removal, and final Phase 2 final construction plans (and associated estimations of final sediment volumes) are not expected to be complete until early in 2013. Furthermore, a small amount of excavated sediments proposed for reuse (pursuant to an approved final sediment reuse plan) may be associated with Phase 1 construction.

21. Protection of Archaeological Resources

(A) **PRIOR TO COMMENCEMENT OF PHASE 2 DEVELOPMENT,** the additional pre-project ~~testing~~ **survey** recommended by the archaeological report in the location between Port Kenyon and the Salt River be conducted and a qualified cultural resource specialist analyze the significance of any resources discovered. If an area of historic or prehistoric cultural resources or human remains are discovered during the course of the project or pre-construction testing, all construction within twenty (20) meters of the discovery shall cease and shall not recommence except as provided in subsection (B) hereof, and a qualified cultural resources specialist shall analyze the significance of the find.

(B) A permittee seeking to recommence construction following discovery of the cultural deposits shall submit an archaeological plan for the review and approval of the Executive Director.

1. If the Executive Director approves the Archaeological Plan and determines that the Archaeological Plan's recommended changes to the proposed development or mitigation measures are *de minimis* in nature and scope, construction may recommence after this determination is made by the Executive Director.

2. If the Executive Director approves the Archaeological Plan but determines that the changes therein are not *de minimis*, construction may not recommence until after an amendment to this permit is approved by the Commission.

…

Reason for recommended change: The purpose of this change is to clarify that only a survey rather than testing need be conducted prior to commencement of Phase 2 development, since the archaeological report recommends the former, and the latter suggests the need for excavation with heavy equipment (e.g., backhoe).

24. Department of Fish & Game Consistency Determination

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall provide, for the review and written approval of the Executive Director, a copy of a

Consistency Determination (CD) **and/or Incidental Take Permit** issued by the Department of Fish and Game pursuant to the California Endangered Species Act, or evidence that no CD **or ITP** is required. The applicant shall inform the Executive Director of any changes to the project required by the Department. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

…

Reason for recommended change: The purpose of this change is to clarify that DFG may ultimately issue an Incidental Take Permit for the project rather than a Consistency Determination.

II. REVISIONS TO THE FINDINGS OF THE STAFF REPORT

To accurately reflect the recommended changes to the special conditions discussed above, staff also is recommending modifications to the related findings of the September 23, 2011 staff report as follows (text to be deleted is shown in ~~strikethrough~~; text to be added appears in **bold double-underline**):

- ***Modify the portions of the Pubic Access Finding IV-J beginning on page 120 as follows:***

Thus, the Commission finds that (1) existing public access in the project area is non-existent to severely limited, (2) a large portion (over half) of the project area has recently been transferred to public ownership (DFG), and (3) the access policies of the Coastal Act require that development maximize public access and recreational opportunities. The Commission therefore finds that inclusion of public access is necessary to avoid any of the project's potential adverse impacts on future potential public access to Riverside Ranch (i.e., the portion of the project area under public ownership). Without the development of a public access plan for the property, future management of the site could be undertaken in a way that would preclude public access. The preparation and implementation of a public access plan would fulfill Coastal Act requirements for maximizing public access and would provide specificity on how such public access amenities shall be provided, maintained, and made available for general public recreational use in a manner that maximizes their utility and value, protects public safety, and does not adversely affect natural or agricultural resources.

Commission staff discussed the development and implementation of a public access plan for the DFG-owned property known as Riverside Ranch with the applicant, DFG land management staff, and State Coastal Conservancy staff. DFG staff expressed the concern that since the restoration project has not been completed yet, at this time it is unknown where important wildlife refugia areas may develop in the future on the restored property

and which areas could support public access in a manner that would not disturb fragile coastal resources (e.g., resting migratory waterfowl). DFG staff believes it is important that the development of a public access plan for the property incorporate habitat monitoring results and site-specific observations of usage of the restored areas by sensitive wildlife to ensure that the plan provides for public access in a time, place, and manner that adequately protects fragile coastal resources. In addition, DFG staff expressed a concern that opening the area to regular public access would encumber the agency's ability to adequately manage and regulate the area given its severely limited staff resources. The issues of illegal dumping, vandalism, improper usage of the site (e.g., impermissible unleashed dog access), and molestation of surrounding agricultural uses all are concerns shared by DFG staff, the applicant, and surrounding property owners. Furthermore, DFG staff explained that its regulations require that particular management standards and regulations must be developed and adopted for new property acquisitions prior to opening an area to public access, which is a process that takes time and has not yet occurred for the subject property. Moreover, both DFG and the applicant strongly believe that the development of a public access plan for the property must involve local community participation and support to determine the most appropriate vehicular access routes to the property, parking areas, allowable usage types, areas, and intensities, and other factors to ensure that public safety needs and the rights of private property owners are protected. Finally, State Coastal Conservancy staff has expressed its support for the development and implementation of a public access plan for the property, especially as public access is one of the principal uses envisioned for the property as stated in the terms and conditions of the Conservancy's grant agreement for the property acquisition.

In addition to the issues and concerns discussed above, the applicant raised a concern expressed by a landowner (of APN 100-111-002) adjacent to the subject DFG property that the western-most approximately 1,000-foot-long segment of Riverside Road may be held in private ownership, and DFG may maintain merely an access easement over that portion of the road. Currently, vehicular access to the DFG-owned property is limited to Riverside Road. [Although the DFG property includes a portion of the Salt River channel corridor adjacent to the Dillon Road Bridge near the Dillon Road junction with Riverside Road, there is no parking availability at this location due to the predominance of riverine and riparian habitats.] Riverside Road is a narrow, unimproved County road that runs along the north side of the Salt River from Dillon Road east of the community of Port Kenyon for about a mile before dead-ending on the subject property. According to staff from the Real Property Services Division of the Humboldt County Public Works Department who researches County right-of-ways, Riverside Road (County Road No. 2H015) is maintained by the County from its junction with Dillon Road for a distance of approximately 0.96-mile. County staff expressed the belief that although the maintenance segment of the road is shorter than the actual road length, the entirety of Riverside Road is held in public ownership. In other words, County staff believes Riverside Road may be a public right-of-way in its entirety (i.e., all the way to the DFG-owned property), but it's only a publicly-maintained right-of-way for 0.96-mile from its junction with Dillon Road (i.e., to a point about 1,000 feet short of the DFG-owned property). County staff recommended the review

of preliminary title reports for both the subject DFG property (APN 100-111-001) and adjacent property (APN 100-111-002) to verify this claim. The development of any public access plan for the DFG-owned property known as Riverside Ranch must include an analysis of alternatives for establishing public vehicular access to the property in addition to planning for the other public access amenities to be provided at the site.

Thus, the Commission finds that development of a public access plan is needed to refine and secure public access elements in a way that will provide maximum public benefit at this important public site in the Eel River Estuary consistent with the Coastal Act policies discussed in this finding. Furthermore, the Commission finds that sufficient time is needed to develop the public access plan to allow for consideration of (a) feasible vehicular access alternatives to the property, (b) the type, frequency, and intensity of public access uses appropriate for the site consistent with the protection of fragile coastal resources and surrounding agricultural uses, and (c) the process of drafting and adopting regulatory standards for the newly acquired property consistent with DFG regulations. The Commission's ecologist (John Dixon) believes, based on direct experience with tidal marsh restoration projects of comparable size in southern California, that an area this large (~440 acres) can accommodate appropriately-sited public access and passive recreational uses without having adverse effects on fragile coastal resources and while still providing restored areas of high natural resource value. It is worth noting that thousands of acres of land and waters immediately adjacent to and in the nearby vicinity of the subject site (including The Wildlands Conservancy's 1,100-acre Eel River Estuary Preserve, the DFG's Cock Robin Island Management Unit of the Eel River Wildlife Area, and the approximately mile-wide lower Eel River in general) will complement and enhance the functionality of the restored Riverside Ranch in achieving the multiple objectives of fish and wildlife habitat restoration, agriculture preservation, and public access uses.

Therefore, the Commission attaches **Special Condition No. 22** to require that a public access plan for the property be prepared and submitted for the Executive Director's review and approval ~~prior to commencement~~ **within two years of completion** of Phase 1 construction ~~(or such additional time as the Executive Director may grant for good cause)~~. The plan must demonstrate that (a) public access amenities shall be provided at Riverside Ranch within ~~two~~ **one** year~~s~~ of ~~completion of the authorized Phase 1 construction activities~~ **approval of the public access plan**; (b) public access amenities shall include, at a minimum, the following: (i) public parking ~~for a minimum of six to eight vehicles~~; (ii) a trail suitable for foot traffic on top of and along **a minimum of half** the ~~entire~~ length of the new setback berm; (iii) ~~a viewing platform at the seaward end of the setback berm trail~~ **signage delineating the public access areas to facilitate public use**; ~~(iv) at least two interpretive panels or signs describing the restoration project and/or issues, information, and history related to the Eel River Estuary; and (v) access for non-motorized boating located at or near the parking area~~; **(c) a boating put-in and/or take-out access point for at least non-motorized boats shall be developed;** and ~~(c)~~ **(d)** all public access areas and amenities shall be available to the general public free of charge at a minimum during daylight hours **a minimum of 39** ~~each~~ weekend**s** of the year. ~~The required public access plan is needed to refine and secure public access elements in a way that will provide maximum public~~

~~benefit at this important public site in the Eel River Estuary consistent with the Coastal Act policies discussed in this finding.~~

In conclusion, the Commission finds that the project, as conditioned, will provide maximum public access consistent with public safety needs and the protection of natural resources and is consistent with the requirements of Coastal Act Sections 30210, 30211, 30212, and 30214.

- ***Modify the portions of Finding IV-C-1 regarding "Restoration of Marine Resources and the Biological Productivity of Coastal Wetlands" on pages 55-56 as follows:***

Although the measures proposed in the HMMP are appropriate, in some cases they do not go far enough, lack detail, or fail to address certain factors to ensure that the permissible development does not result in long-term degradation of the surrounding habitats and indeed achieves the objectives for which it is intended. Commission staff, including the Commission's ecologist (John Dixon), have reviewed the submitted plan and recommended various additional provisions to help ensure the success of the development in achieving its restoration objectives. These additional provisions include all of the following: (1) field documentation that the physical restoration, planting plan, and cattle exclusion fencing have been built-to-plan within three months of the completion of grading, filling, and dredging within each restoration area (both phases); (2) verification, within 180 days of completion of each phase of construction, that all wetlands, agricultural lands, and other sensitive habitats temporarily impacted by construction activities have been returned to pre-project conditions as proposed; (3) production of a map of the Riverside Ranch tidal restoration areas with ~~0.5~~ **1**-foot elevation contours within six months following completion of all restoration grading, filling, and dredging within the tidal restoration areas; (4) continuous monitoring of water level and salinity at one location in the Eel River Estuary near the mouth of the Salt River and at two locations within the Riverside Ranch tidal restoration areas from July 1 through October 31 during the first summer following completion of restoration grading and dredging; (5) collection of spot salinity measurements in the Salt River channel within 1 hour of each higher high tide from July 1 through October 31 during the first summer following completion of creek dredging in order to create a depth profile of salinity at several locations and thereby to determine the upstream limit and approximate shape of the tidal salt water wedge; (6) quantitative monitoring of the Riverside Ranch tidal restoration area and of the riparian restoration areas; (7) inclusion of success criteria for each habitat type, including criteria for species diversity and composition; (8) implementing an eelgrass mitigation plan to adequately compensate for direct impacts to approximately 1.2 acres of eelgrass beds proposed to be impacted by restoration activities; (9) conducting tidewater goby, salmonid, and avian surveys in suitable habitats of the project restoration areas following the completion of restoration activities; (10) completion of a wetland delineation in the 5^{th} year following completion of restoration activities; (11) periodic documentation of channel profiles of the Salt River and of tidal creeks in the Riverside Ranch tidal restoration area to determine channel stability and measure changes that may have to be addressed by adaptive management; (12) the use of native and/or non-persistent, non-invasive **and/or pasture mix** plants only in all proposed plantings and seed mixes to be used in the project; and (13) submittal of a reporting schedule to the Executive Director.

- ***Modify the portions of Finding IV-D-3(i) regarding "Feasible Mitigation Measures" for "Permissible Diking, Dredging, and Filling of Coastal Wetlands and Waters" on pages 63-64 as follows:***

To ensure that the applicant implements the proposed measures and BMPs to protect water quality, the Commission attaches Special Condition Nos. 3 through 6. Special Condition No. 3 imposes various construction responsibilities that must be adhered to during construction including, but not limited to, the following: (a) during construction, all trash shall be properly contained, removed from the work site, and disposed of on a regular basis to avoid contamination of habitat during construction activities; (b) out-of-channel grading, excavation, and other earth-moving activities shall be conducted during the dry season period of June 1 through October 15 only, with limited allowances for earth-moving activities during the broader dry season period of April 15 through November 30; (c) in-channel construction and maintenance activities shall be limited to the dry season period of June 1 through November 30 only; (d) excess ground water shall **not** be pumped **or discharged** into ~~upland~~ **wetland** areas on surrounding fields **outside of the project area footprint** to prevent sediment-laden water from entering coastal waters or wetlands; (e) in-stream erosion and turbidity control measures shall be implemented during channel dredging activities; (f) any fueling and maintenance of construction equipment shall occur within upland areas outside of environmentally sensitive habitat areas or within designated staging areas; mechanized heavy equipment and other vehicles used during construction shall not be refueled or washed within 100 feet of coastal waters; (g) fuels, lubricants, and solvents shall not be allowed to enter the coastal waters or wetlands; and (h) upon completion of construction activities and prior to the onset of the rainy season, all bare soil areas shall be seeded and mulched with weed-free rice straw. **Special Condition No. 4** requires submittal of a final SWPPP for the Executive Director's review and approval. The SWPPP must demonstrate that (a) runoff from the project site shall not increase sedimentation in coastal waters ~~or wetlands during construction or~~ post-construction**. During construction runoff from the project site shall not increase sedimentation in coastal waters beyond what's allowable under the final Water Quality Certification approved for the project by the North Coast Regional Water Quality Control Board**; (b) runoff from the project site shall not result in pollutants entering coastal waters or wetlands during construction or post-construction; (c) BMPs shall be used to prevent the entry of polluted stormwater runoff into coastal waters and wetlands during construction and post-construction; (d) an on-site spill prevention and control response program shall be implemented to capture and clean-up any accidental releases of oil, grease, fuels, lubricants, or other hazardous materials from entering coastal waters or wetlands; and (e) the SWPPP shall be consistent with the provisions of all other terms and conditions of Coastal Development Permit No. 1-10-032. **Special Condition No. 5** requires submittal of final construction plans, including final Phase 1 plans, Phase 2 plans, and Francis Creek culvert replacement plans, prior to commencement of each phase of construction for the Executive Director's review and approval. The plans shall substantially conform to the proposed plans submitted with the application (Exhibit Nos. 9-10) and also shall be consistent with all special conditions of this CDP. Finally, **Special Condition No. 6** requires submittal of final debris disposal plans prior to issuance of the CDP (for Phase 1 debris disposal) and prior to

commencement of Phase 2 development (for Phase 2 debris disposal) for the Executive Director's review and approval. The plans are required to demonstrate that (a) all temporary stockpiles of construction debris, excess sediments, vegetative spoils, and any other debris and waste associated with the authorized work shall be minimized and limited to areas within the proposed project footprint as depicted on the final approved construction plans required by Special Condition No. 5 and where they can feasibly be contained with appropriate BMPs to prevent any discharge of contaminants to coastal waters and wetlands; (b) all construction debris, excess sediments, vegetative spoils, and any other debris and waste expected to be generated by the authorized work shall be disposed of at an authorized disposal site(s) capable of receiving such materials; and (c) side casting or placement of any such material within coastal waters and wetlands is prohibited.

- ***Modify the portions of Finding IV-D-3(iii) regarding "Feasible Mitigation Measures" for "Permissible Diking, Dredging, and Filling of Coastal Wetlands and Waters" on page 68-69 as follows:***

The applicant has proposed a revegetation plan (within the Habitat Mitigation and Monitoring Plan and on the project plans, Exhibit Nos. 9-10 and 17-18), which includes a plant palette for each proposed restored habitat type and seed mixes for active bench seeding and erosion control seeding. Native, regionally appropriate and habitat appropriate species are proposed for all cases except for the erosion control seeding, which proposes a mix of nonnative species "or a mix specified by the landowner and approved by the HCRCD." The Commission finds that rare plant and wetland habitats located within the restored areas and adjacent to the restoration site could be adversely affected if non-native, invasive plant species were to colonize or be dispersed to the areas. Introduced invasive exotic plant species could colonize environmentally sensitive habitat areas and displace native vegetation, thereby disrupting the functions and values of the adjacent sensitive areas. Thus, to ensure that rare plant habitat and other ESHA in or adjacent to the project area are not significantly degraded by any revegetation or seeding that contains invasive exotic species, the Commission attaches **Special Condition No. 12.** This condition requires that only native and/or non-persistent, non-invasive plant species be planted at the site. **Alternatively, the pasture mix proposed in the May 4, 2011 Habitat Mitigation and Monitoring Plan may be used in areas proposed to be restored to pasture grazing use**. In addition, **Special Condition No. 2(16)** requires that the final revised habitat monitoring and reporting program be revised to include provisions for the use of native plants only in all proposed plantings and seed mixes consistent with Special Condition No. 12.

- ***Modify the portions of Finding IV-D-3(iv) regarding "Feasible Mitigation Measures" for "Permissible Diking, Dredging, and Filling of Coastal Wetlands and Waters" on page 71-72 as follows:***

Thus, to ensure that site-specific plans are prepared as proposed for each of the properties proposed to receive excavated sediments, and to further ensure that the window when sediments could be spread across upland areas for agricultural reuse is restricted to the dryer season, the Commission attaches **Special Condition No. 13**. This condition requires submittal of the various

final sediment reuse plans prior to commencement of Phase 2 construction **and prior to the placement of excavated sediments on any agricultural property** for the Executive Director's review and approval. Each sediment reuse plan shall substantially conform to the proposed example sediment reuse plan (Exhibit No. 14), except that each plan shall be site-specific for each property and shall include various specified narrative and graphical information such as (a) the upland acreage available on the subject property for receiving dredged spoils for sediment reuse; (b) the amount of dredged spoils proposed to be placed on the subject property for sediment reuse; (c) generally when, how, and where the dredged spoils will be applied on the subject property; (d) the work window for sediment application on agricultural uplands, with the restriction that sediments shall be applied only during the generally dryer period of April through November; (e) specific BMPs to be used to ensure that no wind- or rain-induced erosion results from the stockpiling and application of material on the subject site; (f) the applicable setback distances from the sediment windrowing and application areas that shall be established on the subject property; and (g) any limitations and restrictions imposed on established buffer areas during the reestablishment of vegetation following sediment application on the sediment reuse area. The condition further requires that the applicant ensure that sediment disposal/reuse is undertaken in accordance with the approved final plans.

- ***Modify the portions of Finding IV-E-3(i) regarding "Incorporation of Best Mitigation Measures Feasible" for "Development Within Coastal Rivers and Streams" on page 81 as follows:***

To minimize impacts to adjacent nesting birds and to ensure implementation of the proposed mitigation measures and no-disturbance buffers recommended by DFG, the Commission includes **Special Condition No. 10.** This condition requires the applicant to submit, prior to commencement of Phase 1 construction for the Executive Director's review and approval, a Sensitive Bird Nesting Habitat Protection Plan, prepared by a qualified biologist, for conducting seasonally appropriate pre-construction surveys for sensitive bird nesting habitat in the project area and for protecting such habitat from construction impacts. The plan must include provisions for (1) surveying the project area by a qualified biologist according to current DFG protocols no more than one week prior to commencement of construction activities proposed to occur during the bird breeding and nesting season for the presence of active nesting habitat; (2) avoiding **construction** activities **other than vehicular use of roads** during the nesting season within 100 feet of an occupied nest of any native migratory bird species; within 300 feet of an occupied nest of any special-status bird species; and within 500 feet of an occupied nest of any raptor species; and (3) submittal of the surveys required above for the review and approval of the Executive Director prior to the commencement of the authorized work each construction season that include a map that locates any sensitive nesting habitat identified by the surveys and a narrative that describes sensitive avoidance measures proposed.

- ***Modify the portions of Finding IV-I regarding "Protection of Archaeological Resources" on page 116 as follows:***

To ensure protection of any archaeological or cultural resources that may be discovered at the site during construction of the proposed project, the Commission attaches **Special Condition No. 21**. This condition requires (a) that the additional pre-project ~~testing~~ **survey** recommended by the archaeological report in the location between Port Kenyon and the Salt River be conducted and that a qualified cultural resource specialist analyze the significance of any resources discovered prior to the commencement of Phase 2 development, and (b) that if an area of cultural deposits is discovered during the course of the project, all construction within 20 meters of the discovery must cease, and a qualified cultural resource specialist must analyze the significance of the find and recommend any needed changes to the proposed development or mitigation measures to protect archaeological resources at either the site of pre-project testing or during construction. To recommence development following discovery of cultural deposits, the applicant is required to submit a supplementary archaeological plan for the review and approval of the Executive Director to determine whether the changes are *de minimis* in nature and scope, or whether an amendment to this permit is required.

MIKE THOMPSON
1ST DISTRICT, CALIFORNIA

COMMITTEE ON WAYS AND MEANS
SUBCOMMITTEE ON HEALTH
SUBCOMMITTEE ON SELECT REVENUE MEASURES

PERMANENT SELECT COMMITTEE ON INTELLIGENCE
RANKING MEMBER, SUBCOMMITTEE ON TERRORISM, HUMAN INTELLIGENCE, ANALYSIS AND COUNTERINTELLIGENCE
SUBCOMMITTEE ON OVERSIGHT

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October 3, 2011

RECEIVED
OCT 04 2011
CALIFORNIA
COASTAL COMMISSION

Chairwoman Mary Shallenberger
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

Dear Chairwoman Shallenberger,

I am writing to express my full support of the Humboldt County Resource Conservation District's application for a coastal development permit for the Salt River Ecosystem Restoration Project. The effort to repair the Salt River and fix chronic flooding outside of Ferndale is of great importance to a large number of my constituents in the First Congressional District.

This large-scale project has brought together a broad array of interested parties, including landowners, local, state and federal agencies and environmental groups. The Salt River effort spans more than 800 acres over agricultural properties of differing private ownership and on a 440-acre property acquired by the California Department of Fish and Game. It runs along 7.5 miles of an important tributary of the Eel River.

The project as proposed will dramatically improve drainage of important and productive pasturelands currently flooded during the wet season; significantly improve the city of Ferndale wastewater treatment system's ability to meet water quality standards; and enhance critical habitat and provide access to spawning grounds for protected coho salmon along miles of stream.

The Salt River Ecosystem Restoration Project represents a large commitment of federal, state and local funding and incredible perseverance on the part of landowners and agencies. I strongly support your approval of a coastal development permit for this important project.

Sincerely,

MIKE THOMPSON
Member of Congress

Thanks for your consideration.

EXHIBIT NO. **25**
APPLICATION NO.
1-10-032 – HUMBOLDT COUNTY RESOURCE CONSERVATION DISTRICT
CORRESPONDENCE

CALIFORNIA COASTAL COMMISSION
NORTH COAST DISTRICT OFFICE
710 E STREET • SUITE 200
EUREKA, CA 95501-1865
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W10b

Filed:	September 9, 2011
49th day:	October 28, 2011
180th day:	March 7, 2012
Staff:	Melissa Kraemer
Staff Report:	September 23, 2011
Hearing Date:	October 5, 2011
Commission Action:	

STAFF REPORT: REGULAR CALENDAR

APPLICATION NUMBER:	**CDP No. 1-10-032**
APPLICANT:	**Humboldt County Resource Conservation District**
AGENT:	Winzler & Kelly (Attn: Jeremy Svehla)
PROJECT LOCATION:	Across ~808 acres of mostly agricultural properties under a variety of different ownerships, including the 440-acre Riverside Ranch owned by the Department of Fish and Game, along ~7.5 miles of the Salt River near Ferndale, Humboldt County (see Appendix B for list of project area APNs and landowners).
PROJECT DESCRIPTION:	Implementation of the Salt River Ecosystem Restoration Project, a multi-year, region-wide, collaborative restoration and flood alleviation project comprised of three major components: (1) Phase 1 involves restoring approximately 400 acres of estuarine marsh, estuarine aquatic, riparian, and freshwater wetland habitats on the lower 2.5 miles of the Salt River and on the 440-acre Riverside Ranch former dairy farm property owned by the Department of Fish & Game; (2) Phase 2 involves restoring hydraulic capacity, in-stream fish habitat, riparian vegetation, and improved water quality along an additional approximately 5 miles of the Salt River, ~2,900 feet of lower Francis Creek, and ~500 feet of lower Eastside Drainage; and (3) long-term maintenance and adaptive management activities to

ensure the project meets its goals and objectives to be performed over multiple years.

GENERAL PLAN DESIGNATION(S): Primarily Agricultural Exclusive (AE) throughout the majority of the project area and Natural Resources (NR) within the Salt River channel corridor. The area surrounding Eastside Drainage is designated Low Density Residential (RL).

ZONING DESIGNATION(S): Primarily Agricultural Exclusive-60-acre minimum parcel size (AE-60) with Coastal Wetland Areas (W), Flood Hazard Areas (F), Streams & Riparian Corridors Protection (R), and/or Transitional Agricultural Lands (T) Combining Zones; also Natural Resources with Streams & Riparian Corridors Protection Combining Zone (NR/R) within the Salt River channel corridor. The area around Eastside Drainage is zoned Residential Single Family (RS) with No Further Subdivision Allowed (X) and Manufactured Home (M) and Flood Hazard Areas (F) Combining Zones.

LOCAL APPROVALS RECEIVED: Humboldt County Conditional Use Permit No. CUP-10-05 (approved July 7, 2011) and CUP Modification No. CUP-10-05M (approved August 4, 2011)

OTHER APPROVALS REQUIRED:

(1) U.S. Army Corps of Engineers (CWA Sec. 404/R&H Act Sec. 10 Permits); (2) NOAA-Fisheries Biological Opinion/Incidental Take Permit (pursuant to the ESA); (3) Fish & Wildlife Service Biological Opinion/Incidental Take Permit (pursuant to the ESA); (4) North Coast Regional Water Quality Control Board (CWA Sec. 401 Water Quality Certification); (5) Department of Fish & Game (FGC Sec. 1602 Streambed Alteration Agreement); (6) DFG Consistency Determination (pursuant to California ESA); (7) State Lands Commission Lease; (8) Caltrans Encroachment Permit; and (9) Humboldt County Department of Public Works Encroachment Permit

SUBSTANTIVE FILE DOCUMENTS:

1. *Final Environmental Impact Report* (Grassetti Environmental Consulting, February 2011);
2. *Salt River Watershed Assessment* (Downie & Lucy 2005);
3. *Adaptive Management Plan* (H.T. Harvey & Assoc., January 28, 2011 with supplemental Table A1 dated September 7, 2011);
4. *Habitat Mitigation & Monitoring Plan* (H.T. Harvey, May 4, 2011);
5. *Rare Plant Mitigation & Monitoring Plan* (H.T. Harvey, January 27, 2011);

6. *Take Avoidance Measures for State-Listed Species* (H.T. Harvey, May 4, 2011);
7. *Cultural Resources Investigation & Addendum* (Roscoe & Assoc., January 2011);
8. *Sensitive Plant & Animal Species Survey Near Ferndale, CA* [Winzler & Kelly (W&K), September 2010];
9. *2010 Willow Flycatcher & Yellow-Billed Cuckoo Surveys* (W&K, September 13, 2010);
10. *Uplands Delineation for Salt River Restoration Project, Ferndale, CA* (Army Corps of Engineers, HCRCD, and W&K, rev. version April 2011);
11. *Uplands Delineation for Various Agricultural Fields Salt River Sediment Reuse Plan, Ferndale, CA* (Corps, HCRCD, and W&K, rev. version, April 2011);
12. *Revised Wetland Delineation for Alexandre Sediment Reuse Plan* (Corps, HCRCD, and W&K, rev. version April 2011);
13. *Revised Wetland Delineation & Supplemental Data for Rocha Sediment Reuse Plan* (W&K, rev. version, August 2010);
14. *Supporting Information for Wetland Conversion, Creation and Impacts on Riverside Ranch (Phase I)* (W&K, April 5, 2011);
15. *Agricultural Impacts Analysis* (HCRCD & State Coastal Conservancy, April 14, 2011);
16. *Biological Assessment* (W&K, June 2011);
17. *Tidewater Goby Biological Assessment* (H.T Harvey, May 25, 2011);
18. *Geotechnical & Engineering Geologic Report* (LACO Assoc., April 2011);
19. *Documentation Supporting the Coastal Development Permit Application* (H.T. Harvey, May 4, 2011);
20. *Ponded Water Survey Memo* (HCRCD, June 2011);
21. *Wetland Buffer Assessment for Sediment Reuse Areas on Agricultural Lands* (W&K, August 2011);
22. *Riverside Ranch Wetland Conversion Assessment* (W&K et al. August 2011);
23. Commission Emergency Permit File No. 1-10-035-G (Humboldt County Public Works Dept.); CDP Waiver No. 1-08-036-W (Humboldt County Public Works Dept.); & CDP File No. 1-09-024 (City of Ferndale); and
24. Humboldt County Local Coastal Program (LCP)

SUMMARY OF STAFF RECOMMENDATION

Staff recommends approval with special conditions of the coastal development permit application for the proposed "Salt River Ecosystem Restoration Project."

The Salt River is a tributary to the Eel River Estuary located approximately five miles south of Humboldt Bay and 15 miles south of Eureka near the city of Ferndale. Historically, the Salt River was largely influenced by tidal action and was the principal

slough tributary to the Eel River Estuary. In the 1800's, the Salt River had four anadromous freshwater tributaries, seven smaller drainages and several significant estuarine tributaries. Today, the channel is undefined and marshy, and only one of the river's tributaries supports severely limited habitat for some species of anadromous fish. In addition, only a small fraction of the original Salt River estuary complex is currently subject to tidal influence.

Past and ongoing land use practices in the surrounding area in combination with natural geographic and geologic factors and processes have contributed to the hydrologic dysfunction and ecological decline of the Salt River. The severely aggraded (filled in with sediment) condition of the channel that characterizes the Salt River today has largely resulted from historical (and ongoing) land reclamation activities, past levee and tide gate construction in the area, and uncontrollable and (to a lesser extent) controllable sediment loads related to landslides, bank erosion, earth flows, timber harvesting practices, and road-related sources in the upper watershed in the Wildcat Hills. Periodic flooding from the Eel River also has deposited large amounts of sediment, filling the historic channels that helped to drain the basin. In general, the Salt River has filled in with sediment faster than that sediment can be removed naturally, due to the elimination of channel cleansing forces such as flow volume and tidal exchange. Today, the main channel of the Salt River and the lower reaches of its tributaries are choked with sediment and riparian vegetation and have lost nearly all natural hydraulic function.

The hydraulic dysfunction of the Salt River has led to significant annual flooding and water quality problems in the region for many years. Agriculture is the principal land use in the lower Salt River Basin. As sediment loads continually aggrade drainages each winter during the rainy season, the Salt River and the lower reaches of its tributaries overflow their banks, resulting in almost perpetual flood conditions across several areas, including public and private roads and infrastructure, residences, and agricultural lands. According to the applicant, based on interviews with producers and ranchers in the area, approximately 750 acres of mostly prime agricultural lands (mostly dairy and grazing lands) in the area surrounding the Salt River are taken out of production for one to eight months each year due to chronic flooding. Forage productivity is greatly compromised by inundation impacts, and agricultural producers must bear production losses and the additional expenses associated with supplemental feed, pumping out floodwater, and farming and re-seeding flooded areas. In addition to regular and sustained flooding in the region, the hydrologically impaired condition of the Salt River channel leads to numerous water quality problems. Of great significance for water quality is the fact that sedimentation and flow volume reduction in the Salt River have reduced channel capacity and the receiving water flows to the point that the effluent from the City of Ferndale's wastewater treatment plant, located near the confluence of the Salt River and Francis Creek, violates water quality standards. The failure of the City to comply with water quality regulations is directly related to the ever-worsening channel conditions in the Salt River.

The Salt River historically functioned as a migration corridor for adult salmonids reaching spawning habitat in tributaries within the Wildcat Mountains and provided rearing habitat for juveniles migrating downstream to the Eel River estuary. Current poor fish passage

conditions in many parts of the basin coupled with riparian vegetation loss in some locations and water quality problems related to water temperature, water chemistry, turbidity, and sediment load have resulted in drastic population declines of all species of salmonids that formerly were more widespread in the Salt River and its tributaries. The Salt River Ecosystem Restoration Project (proposed project) was developed to respond to these problems, with the expected benefits of reduced flood impacts, improved fish passage, improved water quality, improved and expanded habitat for riparian and wetland species, and improved sediment transport.

The proposed project is comprised of two major components. Phase 1 involves restoring approximately 400 acres of estuarine marsh, estuarine aquatic, riparian, and freshwater wetland habitats on the lower 2.5 miles of the Salt River and on the 440-acre Riverside Ranch former dairy farm property comprised mainly of diked former tidelands (seasonal agricultural wetlands) owned by the Department of Fish & Game (DFG). Phase 2 involves restoring hydraulic capacity, in-stream fish habitat, riparian vegetation, and improved water quality along an additional approximately 5 miles of the Salt River, ~2,900 feet of lower Francis Creek, and ~500 feet of lower Eastside Drainage by dredging and reconstructing the river and stream channels and replanting riparian vegetation along the river and stream corridors. The applicant also is proposing long-term maintenance and adaptive management activities to ensure that channel functions and habitat values are appropriately maintained. The proposed project is explained in detail in Finding IV.B and in Exhibit Nos. 9 through 20.

In general, the proposed project would greatly increase estuarine marsh, aquatic, and freshwater wetland habitats in the overall project area while at the same time converting approximately 325 acres of agricultural lands, including 52 acres of prime and 273 acres of non-prime agricultural lands, to restored habitat types. The restoration project would improve or reconnect access to approximately 15 miles of salmonid spawning habitat in Reas, Francis, and Williams Creeks, improve over 7.5 miles of riverine channel habitat with multiple fish habitat features such as alcoves and instream structures in the Salt River and lower Francis Creek, increase the availability of necessary transition (salt/freshwater) habitat for juvenile coho and other salmonids by 264 acres, increase eelgrass habitat by 8.7 acres, and create up to 11 acres and 12,500 linear feet of suitable habitat for tidewater goby.

Staff believes that the proposed project, as conditioned, will maintain and enhance the functional capacity of the habitat and increase the biological productivity of coastal waters necessary to maintain and restore optimum populations of marine organisms and to protect human health, consistent with the mandates of Sections 30230 and 30231 of the Coastal Act. Staff further believes that the proposed diking, dredging, and filling aspects of the project (which would involve ~153,150 cubic yards of dredge material and ~337,450 cubic yards of fill material) are for an allowable use, there is no feasible less environmentally damaging alternative, adequate mitigation is required (in the form of the various recommended special conditions described below) for potential impacts associated with the diking, dredging, and filling of coastal wetlands, and marine habitat values will be maintained or enhanced consistent with Sections 30230, 30231, and 30233 of the Coastal

Act. Moreover, staff believes that the proposed substantial alterations of the Salt River and lower Francis Creek are allowable under Coastal Act Section 30236, since (1) the dual principal objectives of the project are the necessary improvement of fish and wildlife habitat and flood alleviation to protect existing structures and development in the floodplain, both permissible uses under Section 30236, (2) no other feasible measures currently exist for protecting structures within the area, and (3) such protection is necessary to protect public safety and existing development. Staff recommends Special Condition Nos. 2 through 16 as feasible mitigation measures to minimize the project's potential impacts to water quality, sensitive species, wetlands, and other environmentally sensitive habitats.

In addition to the habitat restoration aspects of the project, staff believes that the conversion of 273 acres of non-prime agricultural land on Riverside Ranch for the proposed estuary restoration project is consistent with Section 30242 of the Coastal Act, because it is both necessary to preserve prime agricultural land in the surrounding area and compatible with continued agricultural use on surrounding lands. Although the necessary 273-acre conversion of non-prime agricultural land for estuarine restoration on Riverside Ranch would result in the loss of approximately 1,776 Animal Unit Months (AUMs) per year, the project is expected to protect and enhance at least 750 acres of prime agricultural land in the surrounding area by reducing flooding on surrounding prime agricultural lands through the restoration of channel cleansing forces such as flow volume and tidal exchange that would result in part from the greater tidal prism accommodated by the Riverside Ranch estuarine restoration component of the project. The project would result in an overall net gain of 1,972 AUMs per year.

Nevertheless, the project would result in the permanent conversion of 52 acres of prime agricultural land, inconsistent with Section 30241 of the Coastal Act. Thus, staff believes that it is appropriate to invoke Section 30007.5 of the Coastal Act to resolve the conflict in a manner that is on balance most protective of coastal resources. Staff believes that the proposed project presents a true conflict between Chapter 3 policies of the Coastal Act. The proposed restoration of habitats for the benefit of juvenile salmonids and tidewater gobies, among other marine resources, would convert agricultural land in a manner inconsistent with the provisions of Sections 30241 of the Coastal Act. However, to not approve the project would result in a failure to maintain and enhance marine resources and the biological productivity of coastal waters that would be inconsistent with the mandates of Sections 30230 and 30231 of the Coastal Act. Staff further believes that the benefits of the project are inherent in the essential nature of the project, and there are no alternatives identified that are both feasible and consistent with all of the relevant Chapter 3 policies. In this case, the impacts on coastal resources from not constructing the project would be more significant than the project's agricultural conversion impacts. Although denying the project because of its inconsistency with Section 30241 would avoid the conversion of 52 acres of agricultural land, denial also would result in the failure to maintain and enhance marine resources and the biological productivity of coastal waters appropriate to maintain optimum populations of all species of marine organisms and protect human health as mandated by the requirements of Sections 30230 and 30231. The proposed restoration project would alleviate flooding and improve water quality while at the same time

benefiting marine resources by (1) restoring hydraulic capacity and expanding the tidal prism to improve water quality and drainage efficiency across the floodplain; (2) restoring historic estuarine habitat and tidal connectivity within the lower Salt River, including increasing the availability of necessary transition habitat for juvenile salmonids by 264 acres; (3) increasing suitable habitat for eelgrass by 8.7 acres; (4) creating up to 11 acres and 12,500 linear feet of suitable habitat for tidewater gobies; (5) improving over 7.5 miles of riverine channel habitat with multiple fish habitat features; and (6) reconnecting access to approximately 15 miles of salmonid spawning habitat in Reas, Francis, and Williams Creeks. As discussed at length in Finding IV.G, staff believes that only as conditioned to include Special Condition Nos. 2 through 16 can the proposed project be approved pursuant to Section 30007.5 of the Coastal Act.

Finally, staff recommends various other special conditions to (in part) ensure that the agricultural productivity lost by the proposed conversion of 52 acres of prime agricultural lands will be offset by an equivalent increase in agricultural productivity in and around the project area, to protect archaeological resources, and ensure that a public access plan is prepared and implemented to provide for new public access at Riverside Ranch.

The Motion to adopt the staff recommendation of Approval with Conditions is found on page 8 below.

STAFF NOTES

1. Standard of Review

The proposed project area is bisected by the boundary between the retained coastal development permit (CDP) jurisdiction of the Commission and the CDP jurisdiction delegated to Humboldt County by the Commission through the County's certified local coastal program (LCP). The portions of the project area within the Commission's retained jurisdiction include Riverside Ranch, the Salt River channel, the portions of the Francis Creek channel downstream of the city limits of Ferndale, and some of the agricultural areas proposed for sediment reuse. The remainder of the portion of the project area within the coastal zone, including most of the agricultural areas proposed for sediment reuse, is within the CDP jurisdiction of Humboldt County.

Section 30601.3 of the Coastal Act authorizes the Commission to process a consolidated coastal development permit application when requested by the local government and the applicant and approved by the Executive Director for projects that would otherwise require coastal development permits from both the Commission and from a local government with a certified LCP. In this case, the Humboldt County Board of Supervisors adopted a resolution, and both the applicant and the County submitted letters requesting consolidated processing of the coastal development permit application by the Commission for the subject project, which was approved by the Executive Director.

The policies of Chapter 3 of the Coastal Act provide the legal standard of review for a consolidated coastal development permit application submitted pursuant to Section 30601.3. The local government's certified LCP may be used as guidance.

2. Applicant's Legal Interest in Subject Property

None of the approximately 808-acre project area is in the applicant's ownership. Instead, the proposed project area spans properties (a total of 93 APNs) under the ownership of 45 different landowner entities (see Appendix B). As required by Section 30601.5 of the Coastal Act, the applicant has submitted evidence that (a) each property owner has been notified of the project as proposed in the CDP application (all phases), and (b) each property owner has been invited to join the CDP application as a co-applicant. Evidence has been submitted for all property involved in the proposed project where any form of development is proposed to occur (all phases). In addition, as also required by Section 30601.5, the applicant has submitted Landowner Agreements signed by each of the seven property owners with property within the Phase 1 (Riverside Ranch restoration) project footprint giving the applicant permission to undertake development on the property as conditioned by the Commission. Submittal of such signed Landowner Agreements for the remaining 38 property owners within the Phase 2 (Salt River channel corridor restoration) project footprint and proposed excavated sediment reuse areas is pending (though some have been submitted to date) and, pursuant to recommended **Special Condition No. 1,** must be obtained prior to issuance of the CDP.

3. Past Commission Field Trip

The Commission toured a portion of the proposed project area at its September 6, 2007 public meeting in Eureka.

I. MOTION, STAFF RECOMMENDATION, & RESOLUTION

The staff recommends that the Commission adopt the following resolution:

Motion:

I move that the Commission approve Coastal Development Permit No. 1-10-032 pursuant to the staff recommendation.

Staff Recommendation of Approval:

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution to Approve Permit with Conditions:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS: See Appendix A.

III. SPECIAL CONDITIONS:

1. Demonstration of Adequate Property Rights

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and written approval of the Executive Director, copies of all landowner access agreements for all properties involved in all aspects of both Phase 1 and Phase 2 project activities and for properties proposed to receive Phase 2 excavated sediments for agronomic reuse. All landowner access agreements shall clearly demonstrate that the property owner grants permission to the applicant to undertake development on the property as conditioned by the Commission.

2. Final Revised Habitat Monitoring & Reporting Program

(A) **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the review and written approval of the Executive Director, a final revised habitat monitoring and reporting program that substantially conforms with the plan prepared by H.T. Harvey & Associates titled "Salt River Ecosystem Restoration Project Habitat Mitigation and Monitoring Plan" dated May 4, 2011, except that the plan shall be revised to include provisions for all of the following:

1. The grading, filling, and dredging within each restoration area (both phases) shall not be considered complete until it has been documented in the field that the physical restoration has been built-to-plan. This documentation shall be particularly focused on the attained elevations within each restoration area and shall be completed by an independent qualified surveyor, engineer, or landscape architect. Field documentation that the physical restoration has been built-to-plan shall be submitted for the review and approval of the Executive Director within three months of the completion of grading, filling, and dredging within each restoration area (both phases).

2. The restoration planting within each restoration area (both phases) shall not be considered complete until it has been documented in the field that the proposed planting has been built-to-plan. This documentation shall be completed by an independent restoration ecologist. Field documentation that the planting plan has been built-to-plan with regard to location, spacing, and species diversity shall be submitted for the review and approval of the Executive Director within three months following the completion of planting within each restoration area (both phases).

3. The installation of livestock-exclusion fencing within each restoration area (both phases) shall not be considered complete until it has been documented in the field that the proposed fencing has been built-to-plan. Field documentation that the exclusion fencing has been built-to-plan shall be submitted for the review and approval of the Executive Director within three months of completion of fencing within each restoration area (both phases).

4. Verification that all wetlands, agricultural lands, and other sensitive habitats temporarily impacted by construction activities (estimated ~535 acres) have been returned to pre-project conditions as proposed shall be submitted for the review and approval of the Executive Director within 180 days of completion of each phase of construction.

5. A map of the Riverside Ranch tidal restoration areas with 0.5-foot elevation contours shall be submitted for the review and approval of the Executive Director within six months following completion of all restoration grading, filling, and dredging within the tidal restoration areas.

6. Continuous monitoring of water level and salinity at one location in the Eel River Estuary near the mouth of the Salt River and at two locations within the Riverside Ranch tidal restoration areas shall be performed from July 1 through October 31 during the first summer following completion of restoration grading and dredging. Within the restoration area, one instrument site shall be located in the most northern portion of the restoration area within the internal slough channel most distant from the Salt River, and one site shall similarly be located in the most southern portion of the restoration area.

7. Spot salinity measurements shall be collected in the Salt River channel within one hour of each higher high tide from July 1 through October 31 during the first summer following completion of restoration dredging in order to create a depth profile of salinity at several locations and thereby to determine the upstream limit and approximate shape of the tidal salt water wedge.

8. Quantitative monitoring of the Riverside Ranch tidal restoration area shall be conducted, including mapping and estimating the total cover of broad community types, which may be based on the analysis of aerial or satellite imagery. Field sampling shall include spatially stratified, random samples

with visual estimates of cover by species within elevational strata in both the north and south restoration areas. Elevational strata shall each be spatially stratified to ensure roughly uniform sampling of the entire restoration area. Sampling shall take place during the period June 1 through August 31 during the 3rd, 5th, and 10th years (at a minimum) following the completion of restoration activities.

9. Quantitative monitoring of the riparian restoration areas shall be conducted, including boundary mapping and cover and diversity estimates based on spatially stratified, random samples within each habitat reach (e.g., "spruce dominated riparian forest with brackish marsh") and within each habitat type (i.e., active channel edge riparian vegetation, active berm shrub and herbaceous vegetation, and riparian forest). Total cover within each habitat type may be estimated from aerial or satellite imagery. Field sampling shall include visual estimates of the proportional representation and average diameter-at-breast-height (DBH) of each tree species and visual estimates of cover of each shrub and herbaceous species within the active bench. Sampling and boundary mapping shall take place during the period of June 1 through August 31 during the 3rd, 5th, and 10th years (at a minimum) following the completion of restoration activities. In addition, the boundaries and estimated cover of riparian areas shall be estimated from aerial photographs or from on-the-ground GPS surveys in the 15th and 20th years following completion of restoration activities. The riparian boundaries from each survey shall be overlain on all previous boundary determinations in order to determine the spatial stability of the riparian restoration.

10. Monitoring criteria for each habitat type shall be provided, including criteria for species diversity and composition.

11. An eelgrass mitigation and monitoring plan shall be prepared and implemented pursuant to Special Condition No. 11 to ensure that eelgrass is sufficiently restored in the area to compensate for anticipated direct impacts to approximately 1.2 acres of eelgrass.

12. Tidewater goby surveys shall be conducted in suitable habitats of the project restoration areas at a minimum in the 3rd, 5th, and 10th years following the completion of restoration activities.

13. Salmonid surveys shall be conducted in the project restoration areas at a minimum in the 3rd, 5th, and 10th years following completion of restoration activities.

14. Avian surveys shall be conducted in the project restoration areas at a minimum in the 3rd, 5th, and 10th years following completion of restoration activities.

15. A wetland delineation shall be completed in the 5th-year following completion of restoration activities. The delineation within the Riverside Ranch tidal restoration area may be based on the results of the mapping,

measurement, and sampling required in condition subsections 1, 2 & 5 above, with spot checks of the estimated wetland boundary.

16. Periodic documentation of channel profiles of the Salt River and of tidal creeks in the Riverside Ranch tidal restoration area shall be conducted to determine channel stability and to measure changes that may need to be addressed by adaptive management.

17. Only native and/or non-persistent, non-invasive plants shall be used in all proposed plantings and seed mixes to be used in the project consistent with the requirements of Special Condition No. 12.

18. A reporting schedule shall be submitted to the Executive Director, which includes, but is not necessarily limited to, all of the following: (a) a report documenting that all temporary impact areas have been restored to pre-project conditions within 180 days of each phase of construction consistent with subsection (4) above; (b) a map of the Riverside Ranch tidal restoration areas consistent with subsection (5) above within six months following completion of Phase 1 construction; (c) a report documenting the results of hydrological monitoring required by subsections (6) and (7) above by November 30 of the first year following completion of each phase of construction documenting that the physical restoration was built-to-plan; (d) reports documenting that the biological/habitat restoration based on seeding and container planting was built-to-plan within four months of completion of restoration activities for each Phase 1 and Phase 2 construction; (e) the results of biological monitoring (including fish, bird, eelgrass, and other rare plant survey results) in the 3rd, 5th, and 10th years following completion of Phase 2 restoration activities, including an assessment of success relative to the established criteria, within one year of completion of each year of field sampling; (f) the results of the wetland delineation required by subsection (15) above documenting a minimum of 757 acres of wetlands within the project area footprint; (g) the results of the riparian habitat restoration required by subsection (9) above documenting a minimum of 128 acres of riparian habitat within the project area footprint; and (h) the revised or supplemental restoration and monitoring program described in subsection (B) below.

(B) If the 10th-year biological monitoring report indicates that the project has been unsuccessful, in part, or in whole, based on the approved goals and objectives set forth in the approved coastal development permit application, the permittee shall submit an application of an amendment to CDP No. 1-10-032 proposing a revised or supplemental restoration and monitoring program to compensate for those portions of the original program which did not meet the approved goals and objectives within six months of submittal of the 10th-year biological monitoring report.

(C) The permittee shall monitor the project site in accordance with the approved final habitat restoration and monitoring program. Any proposed changes to the approved final monitoring program shall be reported to the Executive Director. No changes

to the approved final monitoring program shall occur without a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

3. Construction Responsibilities & Standards

The authorized work shall comply with the following construction responsibilities and standards:

(A) **Prior to the commencement of any development authorized under this CDP**, the permittee shall ensure that all on-site workers and contractors understand and agree to observe the standards for work outlined in this permit and in the detailed project description included as part of the application submittal and as revised by these conditions.

(B) **Prior to commencement of ground-disturbing activities** associated with both Phase 1 and Phase 2 construction, appropriate erosion, sediment, and runoff control measures shall be deployed in accordance with the final Storm Water Pollution Prevention Plan approved pursuant to Special Condition No. 4, and all measures shall be properly maintained throughout the duration of construction activities.

(C) **Prior to the commencement of construction**, the limits of the work areas and staging areas shall be delineated in cooperation with a qualified biologist, limiting the potential area affected by construction and ensuring that all agricultural lands, wetlands, and other environmentally sensitive habitats adjacent to construction areas are avoided during construction. All vehicles and equipment shall be restricted to pre-established work areas and haul routes and to established or designated staging areas;

(D) During construction, all trash shall be properly contained, removed from the work site, and disposed of on a regular basis to avoid contamination of habitat during construction activities. Any debris inadvertently discharged into coastal waters shall be recovered immediately and disposed of consistent with the requirements of this coastal development permit;

(E) All construction debris, including demolished fencing materials, gating, water lines, agricultural structures, and other related debris, shall be removed from the project site and disposed of in an upland location outside of the coastal zone or at an approved disposal facility pursuant to the final debris disposal plans approved pursuant to Special Condition No. 6;

(F) Channels shall be dewatered prior to excavation under the supervision of a qualified aquatic biologist in accordance with the fish and aquatic resources protection measures required by Special Condition No. 7.

(G) Prior to commencement of channel excavation, coffer dams or other temporary fish barriers shall be placed in the river channel during periods of low tide only. Dams and barriers shall be removed following completion of construction during periods of low tide;

(H) The following seasonal restrictions shall apply to the authorized construction work:

1. Out-of-channel grading, excavation, and other earth-moving activities shall only be conducted during the dry season period of June 1 through October 15 except as provided below. If rainfall is forecast during the time construction activities are being performed, any exposed soil areas shall be promptly mulched or covered with plastic sheeting and secured with sand bagging or other appropriate materials before the onset of precipitation. Any grading excavation, and other earth-moving activities that cannot feasibly be conducted within the June 1 through October 15 time period may be conducted between April 15 and May 31 and/or between October 16 and November 30 subject to the following conditions:

    a. All work shall cease upon the onset of precipitation at the project site and shall not recommence until the predicted chance of rain is less than 40 percent for the Ferndale area;

    b. The work site(s) shall be winterized between work cessation periods by installing stormwater runoff and erosion control barriers around the perimeter of each construction site to prevent the entrainment of sediment into coastal waters;

    c. Adequate stocks of stormwater runoff and erosion control barrier materials shall be kept onsite and made available for immediate use.

2. In-channel construction and maintenance activities shall be limited to (a) the dry season period of June 1 through November 30 only, subject to subsections 1.a-c above; and (b) any more restrictive time period within the June 1-November 30 timeframe if required by NOAA-Fisheries, Fish & Wildlife Service, or the Department of Fish & Game.

(I) Excess excavated sediments not proposed for reuse on site in accordance with the approved final construction plans shall be disposed of either off-site in a confirmed upland area outside of the coastal zone in conformance with the approved final debris disposal plans required by Special Condition No. 6 or placed in an upland area of an agricultural property in the coastal zone in conformance with an approved final sediment reuse plan approved pursuant to Special Condition No. 13;

(J) Excess ground water shall be pumped into upland areas on surrounding fields to prevent sediment-laden water from entering coastal waters or wetlands;

(K) In-stream erosion and turbidity control measures shall be implemented during channel dredging activities;

(L) Equipment staging and materials stockpiling areas shall be limited to the locations and sizes specified in the approved final plans. Construction vehicles shall be restricted to designated haul routes. Construction equipment and materials shall be stored only in designated staging and stockpiling areas as depicted on the final plans approved pursuant to Special Condition No. 5;

(M) Any fueling and maintenance of construction equipment shall occur within upland areas outside of environmentally sensitive habitat areas or within designated staging areas. Mechanized heavy equipment and other vehicles used during the

construction process shall not be refueled or washed within 100 feet of coastal waters;

(N) Fuels, lubricants, and solvents shall not be allowed to enter the coastal waters or wetlands. Hazardous materials management equipment including oil containment booms and absorbent pads shall be available immediately on-hand at the project site, and a registered first-response, professional hazardous materials clean-up/remediation service shall be locally available on call. Any accidental spill shall be rapidly contained and cleaned up; and

(O) Upon completion of construction activities and prior to the onset of the rainy season, all bare soil areas shall be seeded in compliance with Special Condition No. 12 and mulched with weed-free rice straw.

4. <u>Final Storm Water Pollution Prevention Plan</u>

(A) **PRIOR TO COMMENCEMENT OF DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL**, the applicant shall submit, for the review and approval of the Executive Director, a final Storm Water Pollution Prevention Plan (SWPPP) for Phase 1 construction activities. **PRIOR TO COMMENCEMENT OF PHASE TWO (2) DEVELOPMENT**, the applicant shall submit, for the review and approval of the Executive Director, a final SWPPP for Phase 2 construction activities. The final SWPPPs shall include provisions for all of the following:

1. Runoff from the project site shall not increase sedimentation in coastal waters or wetlands during construction or post-construction;

2. Runoff from the project site shall not result in other pollutants entering coastal waters or wetlands during construction or post-construction;

3. Best Management Practices (BMPs) shall be used to prevent the entry of polluted stormwater runoff into coastal waters and wetlands during construction and post-construction, including use of relevant BMPs as detailed in the current California Storm Water Quality Best Management Handbooks (http://www.cabmphandbooks.com);

4. An on-site spill prevention and control response program, consisting of best management practices (BMPs) for the storage of clean-up materials, training, designation of responsible individuals, and reporting protocols to the appropriate public and emergency services agencies in the event of a spill, shall be implemented at the project to capture and clean-up any accidental releases of oil, grease, fuels, lubricants, or other hazardous materials from entering coastal waters or wetlands;

5. A schedule for installation and maintenance of appropriate construction source-control BMPs to prevent entry of stormwater runoff into the construction site and the entrainment of excavated materials into runoff leaving the construction site; and

6. The SWPPPs shall be consistent with the provisions of all other terms and conditions of Coastal Development Permit No. 1-10-032.

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

5. Final Construction Plans

(A) **PRIOR TO COMMENCEMENT OF DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL,** the applicant shall submit, for the review and approval of the Executive Director, final plans for Phase One (1) construction that substantially conform with the Phase 1 construction 75 percent plans prepared by Kamman Hydrology & Engineering, Inc. dated May 2011 and which are consistent with all Special Conditions of Coastal Development Permit No. 1-10-032;

(B) **PRIOR TO COMMENCEMENT OF PHASE TWO (2) DEVELOPMENT**, the applicant shall submit, for the review and approval of the Executive Director, both of the following:

1. Final plans for Phase Two (2) construction that substantially conform with the Phase 2 construction 50 percent plans prepared by Winzler & Kelly and Michael Love & Associates dated May 2011 and which are consistent with all Special Conditions of Coastal Development Permit No. 1-10-032; and

2. Final project plans for the construction of the Francis Creek culvert replacement at Port Kenyon Road that substantially conform with the preliminary plans prepared by Humboldt County dated January 7, 2011.

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

6. Final Debris Disposal Plans

(A) **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the review and written approval of the Executive Director, final plans for the disposal of all construction debris, excess sediments, vegetative spoils, and any other debris and waste expected to be generated by the authorized Phase One (1) work. In addition, **PRIOR TO COMMENCEMENT OF PHASE TWO (2) DEVELOPMENT**, the applicant shall submit, for the review and approval of the Executive Director, final plans for the disposal of all construction debris, excess sediments, vegetative spoils, and any other debris and waste expected to be generated by the authorized Phase 2 work.

1. The plans shall demonstrate that:

   a. All temporary stockpiles of construction debris, excess sediments not approved for reuse on surrounding agricultural uplands pursuant to Special Condition No. 13, vegetative spoils, and any other debris and waste associated with the authorized work shall be minimized and limited to areas within the proposed project footprint as depicted on the final approved construction plans required by Special Condition No. 5 and where they can feasibly be contained with appropriate BMPs to prevent any discharge of contaminants to coastal waters and wetlands;

   b. All construction debris, excess sediments not approved for reuse on surrounding agricultural uplands pursuant to Special Condition No. 13, vegetative spoils, and any other debris and waste generated by the authorized work shall be disposed of at an authorized disposal site(s) capable of receiving such materials;

   c. Side casting or placement of any construction debris, excess sediments not approved for reuse on surrounding agricultural uplands pursuant to Special Condition No. 13, vegetative spoils, and any other debris and waste generated by the authorized work within the Salt River, any slough, creek, or drainage, or any other wetland area, including grazed seasonal wetlands, is prohibited; and

   d. Disposal of excavated sediments on surrounding agricultural uplands in the coastal zone for agronomic reuse purposes shall occur only on properties for which final sediment reuse plans have been approved pursuant to Special Condition No. 13.

2. The plans shall include, at a minimum, the following:

   a. A site plan showing all proposed locations for the temporary stockpiling of construction debris, excess sediments, vegetative spoils, and any other debris and waste associated with the authorized work during construction operations;

   b. A description of the manner by which the stockpiled materials will be removed from the construction site and identification of all debris disposal sites that will be used; and

   c. A schedule for the removal of all construction debris, excess sediments, vegetative spoils, and any other debris and waste associated with the authorized work.

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

7. <u>Protection of Sensitive Fish and Aquatic Resources</u>

The permittee shall undertake all development authorized by CDP No. 1-10-032 in accordance with the fish and aquatic resources protection measures and protocols detailed in the application and included within the February 2011 Final Environmental Impact Report (Mitigation Monitoring and Reporting Program) and the two Biological Assessments (May 25, 2011 and June 2011) prepared for the project to ensure minimization of impacts to sensitive fish species and sensitive fish critical habitat within and around the project area. Fish and aquatic resources protection measures shall include, but shall not necessarily be limited to, the following:

(A) Coffer dams shall be erected prior to dewatering;

(B) Channels shall be dewatered prior to excavation under the supervision of a qualified aquatic biologist;

(C) Fish screens shall be installed upstream of coffer dams to prevent aquatic organisms from transfer into bypass piping;

(D) A qualified biologist shall appropriately use seining, dip nets, electrofishing, or other trapping procedures to transfer aquatic organisms out of the work area;

(E) Any captured Sacramento pikeminnow shall be euthanized rather than relocated;

(F) Coffer dam construction, channel dewatering, and relocation of aquatic organisms shall be performed in consultation with staff from NOAA-Fisheries, DFG, and Fish & Wildlife Service;

(G) The various avoidance and minimization measures for tidewater goby shall be implemented as proposed in the May 25, 2011 Biological Assessment; and

(H) The various water quality protection measures required by Special Condition Nos. 3, 4, and 6 shall be implemented.

8. <u>Sacramento Pikeminnow Mitigation Measures</u>

The permittee shall undertake monitoring and control of Sacramento pikeminnow in the project area as proposed in the June 2011 Biological Assessment prepared for the project including, but not necessarily limited to, conducting annual monitoring for and documentation of pikeminnow for at least five years following completion of Phase 2 development to assess presence/absence, population estimates, habitat preferences, dietary preferences, movement patterns, and other factors. Annual reports shall be submitted to the Executive Director by December 31 of each year. In the event that adult pikeminnow greater than 10 inches in size become dominant in the project area, a control program shall be implemented as proposed in the Biological Assessment. The pikeminnow control program shall require an amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

9. <u>Riparian Vegetation Removal Restrictions</u>

Authorized riparian vegetation removal is prohibited during the portion of the bird breeding/nesting seasons between March 1 and July 1. During the remaining portion of the bird breeding and nesting season between July 1 and August 15, riparian vegetation

removal may only occur if (a) a qualified biologist has surveyed the area according to the approved Sensitive Bird Nesting Habitat Protection Plan required by Special Condition No. 10, and (b) the survey results indicate that no willow flycatchers are present in the area and no nesting habitat for any bird species is present in the area. Authorized vegetation removal may occur without these restrictions between August 15 and March 1.

10. Protection of Bird Breeding & Nesting Habitat

(A) **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the permittee shall submit, for the review and written approval of the Executive Director, a Sensitive Bird Nesting Habitat Protection Plan, prepared by a qualified biologist, for conducting seasonally appropriate pre-construction surveys for sensitive bird nesting habitat in the project area and protecting such habitat from construction impacts. The plan shall include, at a minimum, the following:

1. Provisions for surveying the project area each year by a qualified biologist according to current Department of Fish and Game protocols no more than one week prior to commencement of construction activities proposed to occur that year during the bird breeding and nesting season (March 1 through August 15) for the presence of active nesting habitat;

2. Provisions for avoiding activities during the nesting season(s) within 100 feet of an occupied nest of any native migratory bird species; within 300 feet of an occupied nest of any special-status bird species; and within 500 feet of an occupied nest of any raptor species. No-disturbance buffers around active nests shall be maintained until completion of nesting.

3. Provisions for submittal of the surveys required above for the review and approval of the Executive Director prior to the commencement of authorized work each year during the bird breeding and nesting season that includes a map that locates any sensitive nesting habitat identified by the surveys and a narrative that describes sensitive habitat avoidance measures proposed.

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

11. Final Revised Rare Plant Mitigation and Monitoring Plan

(A) **PRIOR TO COMMENCEMENT OF DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL**, the applicant shall submit, for the review and approval of the Executive Director, a final revised rare plant mitigation and monitoring plan prepared by a qualified botanist or ecologist that substantially conforms with the plan prepared by H.T. Harvey & Associates titled “Salt River Ecosystem Restoration Project Rare Plant Mitigation and Monitoring Plan” dated

January 27, 2011, except that the plan shall be revised to include various additional provisions for eelgrass mitigation and monitoring, as follows:

1. A pre-construction eelgrass survey shall be completed during the months of May through August. The pre-construction survey shall be completed prior to the beginning of construction and shall be valid until the next period of active growth.

2. A post-construction eelgrass survey shall be completed in the same month as the pre-construction survey during the next growing season immediately following the completion of construction.

3. If post-construction eelgrass surveys indicate any decrease in eelgrass density or cover, then the site shall be monitored consistent with the approved final mitigation and monitoring plan until the performance criteria in subsection (6) have been met. If post-construction survey results demonstrate to the satisfaction of the Executive Director that eelgrass densities have not decreased at all and there has been no loss of extent of vegetated cover, then no further monitoring or mitigation is required.

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

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

6. Within three years of completion of the project (both phases), the entire pre-construction eelgrass area plus the restored areas suitable for eelgrass recruitment shall have an extent of vegetative cover equal to at least 1.2 times the impacted area and have an average density equal to the pre-construction average density.

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

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

9. If the impacted eelgrass areas have not met the recovery standard in subsection (6) in three years, the areas shall be remediated within one year of a determination by the permittee or the Executive Director that monitoring results indicate that recovery has not taken place;

10. A detailed remediation plan shall be included that provides for mitigation site identification, planting methods, monitoring methods, and schedule. Specific success and monitoring criteria are as follows:

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

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

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

(B) If the performance criteria in subsection (A)-10 above have not been met at the end of the three-year remediation period, the permittee shall submit an application for an amendment to Coastal Development Permit No. 1-10-032 proposing additional mitigation to ensure all performance criteria are satisfied consistent with all terms and conditions of this permit.

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

12. <u>Revegetation Standards & Limitations</u>

(A) Only native plant species shall be planted in the proposed restoration areas. All proposed plantings shall be obtained from local genetic stocks within Humboldt County. If documentation is provided to the Executive Director that demonstrates that native vegetation from local genetic stock is not available, native vegetation obtained from genetic stock outside of the local area may be used. No plant species listed as problematic and/or invasive by the California Native Plant Society, the California Invasive Plant Council, or as may be identified from time to time by the State of California shall be employed or allowed to naturalize or persist on the site. No plant species listed as a "noxious weed" by the governments of the State of California or the United States shall be utilized within the project area.

(B) For the proposed soil stabilization and erosion control applications, regionally appropriate native plants shall be used if feasible. If infeasible (e.g., on privately owned pasturelands disturbed by temporary construction impacts proposed to be restored to agricultural production), the use of nonnative species or varieties may be used [e.g., sterile, short-lived, non-persistent cereal grasses such as barley (*Hordeum vulgare*), buckwheat (*Fagopyron esculentum*), rye (*Secale cereale*), and

wheat (*Triticum aestivum*)] only if the proposed species or varieties are known not to persist or spread in the ecosystem.

(C) All proposed planting shall be completed by the end of the first full optimal planting season that occurs after completion of construction;

(D) All required plantings shall be maintained in good growing condition throughout the life of the project and whenever necessary shall be replaced with new plant materials to ensure continued compliance with the restoration goals and objectives.

(E) The use of rodenticides containing any anticoagulant compounds including, but not limited to, Bromadiolone, Brodifacoum or Diphacinone is prohibited.

13. <u>Final Sediment Reuse Plans</u>

(A) **PRIOR TO COMMENCEMENT OF DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL**, the applicant shall submit, for the review and approval of the Executive Director, final sediment reuse plans for each agricultural property proposed to receive excavated sediments from Phase 2 construction. Each sediment reuse plan shall provide that no excavated sediments shall be placed either within any wetlands located on or immediately adjacent to the subject property or within wetland buffer areas as proposed in the example sediment reuse plan included as Appendix E of the document titled "Wetland Buffer Assessment for Sediment Reuse Areas on Agricultural Lands" prepared by Winzler & Kelly dated August 2011. The final sediment reuse plans shall substantially conform to the example sediment reuse plan, except that each plan shall be made site-specific for each property and shall include the following additional provisions:

1. A narrative description of (a) property owner name, site location, and APN(s); (b) the upland acreage available on the subject property for receiving excavated sediments for sediment reuse; (c) the amount of excavated sediments proposed to be placed on the subject property for sediment reuse; (d) generally when, how, and where the excavated sediments will be applied on the subject property, whether the material will be temporarily windrowed and if so for how long, and any other relevant details; (e) the work window for sediment application on agricultural uplands, with the restriction that sediments shall be applied only during the generally dryer period of April through November; (f) specific best management practices to be used to ensure that no wind- or rain-induced erosion results from the stockpiling and application of material on the subject site; (g) the applicable setback distances from the sediment windrowing and application areas that shall be established on the subject property; (h) limitations and restrictions imposed on established buffer areas during the reestablishment of vegetation following sediment application on the sediment reuse area (e.g., vegetation maintenance, allowable depth of overland flow through the area, etc.); and (i) the upland and/or wetland delineation reference applicable to the specific property.

2. A clear, appropriately-scaled graphic depiction of (a) all areas of the subject property proposed to receive excavated material for sediment reuse; (b) all wetlands on and immediately adjacent to the subject property; (c) all applicable setback buffers (from delineated wetlands, fence lines with wetlands on adjacent properties, etc.) for the subject property as proposed in the August 2011 example sediment reuse plan; (d) proposed windrow/stockpiling areas; (e) locations of specified BMPs; and (f) any upland or wetland delineation data points recorded on the subject property.

3. Addition of a sediment reuse note that explains that the placement of the excavated sediments on the property for temporary stockpiling and subsequent sediment reuse is regulated as a form of development under Coastal Development Permit No. 1-10-032 subject to the applicable terms and conditions of the CDP.

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

14. <u>Final Revised Adaptive Management Plan</u>

(A) **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the review and written approval of the Executive Director, a final revised adaptive management plan that substantially conforms to the Adaptive Management Plan (AMP) prepared by H.T. Harvey & Associates dated January 28, 2011 and the AMP Supplement Update Table A-1 dated September 7, 2011, except that the plan shall be revised to include provisions for all of the following:

1. All measures, protocols, standards, limitations, and BMPs listed in Special Condition Nos. 2 through 13 of CDP No. 1-10-032 shall be applied as they relate to each specific "potential management action" listed in AMP Supplement Update Table A-1.

2. Channel excavation to remove sediment to improve channel function (row #4 of Supplement Update Table A-1) shall be limited annually to an area not to exceed 25,000 cubic yards of sediment and 2,000 linear feet of sediment removal.

3. Pre- and post-storm maintenance activities in the channel (row #6 of Supplement Update Table A-1) shall be restricted annually to the period of June 1 through November 30 only;

4. The removal of any native vegetation in riparian forest restoration areas and existing riparian areas (row #10 of Supplement Update Table A-1) shall be prohibited without an amendment to this coastal development permit.

5. The removal of riparian vegetation (row #10 of Supplement Update Table A-1) shall be limited annually to areas of five (5) acres or less within Sediment Management Areas, active bench areas, and active channel areas only, and within these areas only young (i.e., less than 5-year-old) trees and shrubs no larger than 4 inches in diameter are permitted to be removed. Such vegetation removal shall be prohibited during the portion of the bird breeding/nesting season between March 1 and July 1. During the remaining portion of the bird breeding and nesting season between July 1 and August 15, riparian vegetation removal may only be performed if (a) a qualified biologist has surveyed the area according to the approved Sensitive Bird Nesting Habitat Protection Plan required by Special Condition No. 10, and (b) the survey results indicate that no willow flycatchers are present in the area and no nesting habitat for any bird species is present in the area.

6. The work window for applying/placing excavated sediments on agricultural uplands (row #16 of Supplement Update Table A-1) shall be restricted to the dry season period of April through November only.

7. Criteria for flash grazing shall be provided, which (a) restricts grazing to limited time periods across limited acreages within active bench areas and upland berm areas only; (b) requires that pre-construction rare plant surveys be conducted in proposed grazing areas within or adjacent to rare plant suitable habitat; and (c) requires that temporary livestock exclusion fencing be installed to exclude livestock from channels, riparian areas, and other sensitive habitat areas.

8. Those potential management actions listed in Table A-1 that include (a) repairing failed or damaged road-stream crossings where the crossing would be enlarged, (b) implementing site-specific erosion control BMPs such as soil bioengineering and vegetative revetments, (c) replacing or enlarging culverts and tide gates as needed, (d) excavating tidal channels and/or re-filling or drainage ditches to improve hydrologic connectivity, and (e) certain erosion control measures (e.g., armoring and geotechnical bank protection) shall not occur without an amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

9. The September 7, 2011 version of Table A-1, as modified herein, shall be incorporated into the final approved AMP.

10. The period of AMP authorization shall be limited consistent with Special Condition No. 15.

11. An annual maintenance/adaptive management operations plan shall be submitted each year pursuant to Special Condition No. 16 for the Executive Director's review and approval prior to commencement of annual maintenance and/or adaptive management operations.

(B) The permittee shall undertake maintenance and adaptive management development in accordance with the approved final adaptive management plans. Any proposed

changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

15. Length of Development Authorization for Ongoing Maintenance and Adaptive Management Activities Authorized by CDP 1-10-032

Development authorized by this permit is valid for five (5) years from the date of Commission approval (until October 5, 2016). One request for an additional five-year period of development authorization may be accepted, reviewed and approved by the Executive Director for a maximum total of ten (10) years of development authorization, provided the request would not alter the project description and/or require modifications of conditions due to new information or technology or other changed circumstances. The request for an additional five-year period of development authorization shall be made at least 120 days prior to October 5, 2016. If the request for an additional five-year authorization period would alter the project description and/or require modifications of conditions due to new information or technology or other changed circumstances, an amendment to CDP No. 1-10-032 shall be necessary to authorize development beyond October 5, 2016.

16. Submittal of Annual Maintenance/Adaptive Management Operations Plan

(A) **PRIOR TO COMMENCEMENT OF ANNUAL MAINTENANCE AND/OR ADAPTIVE MANAGEMENT OPERATIONS IN ANY YEAR IN WHICH MAINTENANCE AND/OR ADAPTIVE MANAGEMENT OPERATIONS ARE CONDUCTED PURSUANT TO THIS COASTAL DEVELOPMENT PERMIT AUTHORIZATION,** the permittee shall submit, for the review and approval of the Executive Director, an annual Maintenance/Adaptive Management Operations Plan for that year's proposed maintenance/adaptive management work that (a) is consistent with the final revised Adaptive Management Plan approved by the Executive Director pursuant to Special Condition No. 14, (b) is consistent with all terms and conditions of Coastal Development Permit No. 1-10-032, and (c) contains, at a minimum, the following information:

1. A site plan depicting the location(s) of proposed annual maintenance and/or adaptive management activities, including applicable Assessor's Parcel Numbers and property owner names for all proposed work sites and associated construction areas;

2. A description of the type(s) of annual maintenance/adaptive management activities proposed;

3. Cross sections, maps, and associated calculations as necessary that accurately depict the proposed annual maintenance/adaptive management work area(s);

4. Copies of any necessary biological and botanical surveys needed for approval of annual maintenance/adaptive management activities;

5. A plan for erosion, run-off, and sedimentation control to avoid significant adverse impacts on coastal resources. The plan shall demonstrate that (a) run-off from the work sites shall not increase sedimentation in or result in pollutants entering coastal waters; and (b) Best Management Practices (BMPs) shall be used to prevent entry of polluted stormwater runoff into coastal waters during the construction, including the use of relevant BMPs as detailed in the current California Storm Water Quality Best Management Handbooks (http://www.cabmphandbooks.com). The plan shall contain both (a) a narrative report and a site plan describing the locations of all temporary erosion, runoff, and sedimentation control measures to be used during annual maintenance/adaptive management activities; and (b) a schedule for installation and removal of the temporary control measures.

6. If applicable, a debris disposal plan consistent with Special Condition No. 6;

7. If applicable, a creek dewatering and diversion plan consistent with the protection measures outlined in Special Condition No. 7.

8. If applicable, a revegetation plan consistent with restrictions enumerated in Special Condition No. 12;

9. If applicable, a sediment reuse plan consistent with Special Condition No. 13; and

10. A schedule for proposed annual maintenance/adaptive management activities.

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

17. <u>Final Revised Agricultural Enhancement Monitoring Plan</u>

(A) **PRIOR TO COMMENCEMENT OF DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL,** the permittee shall submit, for the review and approval of the Executive Director, a final Agricultural Enhancement Monitoring Plan designed to monitor changes in agricultural productivity within and around the project area resulting from implementation of the proposed project. The plan shall substantially conform to the Agricultural Enhancement Monitoring Plan submitted with the coastal development permit application, except that it shall contain the following additional provisions:

1. Provisions for ensuring that agricultural productivity shall be increased by at least 4,270 Animal Unit Months (AUMs) per year (or an equivalent agricultural productivity value) on the 750 acres of prime agricultural lands within and around the project area footprint within five years of completion of Phase 2 construction;

2. Details on the proposed methods for measuring changes in agricultural productivity within and around the project area over a minimum five-year period following completion of Phase 2 construction;

3. A map depicting all agricultural lands proposed to be included in the agricultural enhancement monitoring area, including a calculation of the total acreage of lands to be included within and surrounding the project area). The map shall depict all "prime agricultural land" (as defined in Section 51201(c) of the California Government Code) within the agricultural enhancement monitoring area;

4. Provisions for submittal of documentation to the Executive Director at the end of the 5-year monitoring period demonstrating that agricultural productivity on the 750 acres of prime agricultural lands within and around the project area has been increased by at least 4,270 AUMs per year or an equivalent measure of agricultural productivity; and

5. A detailed monitoring and reporting schedule that indicates when the agricultural productivity monitoring events will be completed throughout the proposed monitoring program and when annual reports will be submitted to the Executive Director. Monitoring reports shall be provided to the Executive Director annually beginning the first year following completion of Phase 2 construction and continuing each year for at least five years.

(B) If the 5th-year monitoring report indicates that the project has been unsuccessful, in part or in whole, the permittee shall submit an application for an amendment to CDP No. 1-10-032 proposing revisions to the project authorized by CDP No. 1-10-032 to achieve the increase in agricultural productivity required by Section (A)-4 above.

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

18. <u>Restoration of Prime Agricultural Land on Riverside Ranch</u>

(A) **PRIOR TO COMMENCEMENT OF DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL,** the permittee shall submit, for the review and approval of the Executive Director, a plan to transform at least fifty-two (52) acres of currently non-prime agricultural land on Riverside Ranch to "prime agricultural land" as defined in Section 51201(c) of the California Government Code within five (5) years of completion of Phase 1 construction. The plan shall include provisions for all of the following:

1. Within five years of completion of Phase 1 construction, at least 52 acres of the retained agricultural land on Riverside Ranch shall qualify as prime

based on any one of the four paragraphs of Section 51201(c) of the California Government Code;

2. A description of the agricultural management activities that will be undertaken to restore the agricultural land to prime conditions and the type of documentation that will be submitted as evidence that the land has been transformed to prime.

3. A site plan depicting the property's agricultural features such as proposed fences and/or livestock fencing maintenance areas, grazing and/or pasturing areas, agricultural structures, water lines, and other infrastructure, etc.;

4. Provisions for submittal of a report to the Executive Director at the end of the 5th-year following completion of Phase 1 construction documenting how much of the retained agricultural land on Riverside Ranch qualifies at that time as prime based on any one of the four paragraphs of Section 51201(c) of the California Government Code.

(B) If the 5th-year monitoring report indicates that less than 52 acres of the retained agricultural land on Riverside Ranch qualifies as prime agricultural land, the permittee shall submit an application for an amendment to CDP No. 1-10-032 proposing either (i) corrective measures to ensure that at least 52 acres of the retained agricultural land on Riverside Ranch will qualify as prime agricultural land within one year of approval of the permit amendment, or (ii) to transform other non-prime agricultural land elsewhere within the coastal zone in the Eel River Delta to prime agricultural land in an amount equal to or greater than the number of acres less than 52 that have been transformed to prime agricultural land on Riverside Ranch.

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

19. <u>Submittal of Upslope Sediment Reduction Program Annual Progress Reports</u>

The Upslope Sediment Reduction Program as described in the Final Environmental Impact Report for the Salt River Ecosystem Restoration Project shall be implemented as proposed, and annual progress reports on the program shall be submitted for the review and approval of the Executive Director by December 31 of each calendar year for the duration of the five-year monitoring period required by Special Condition No. 17. The annual reports shall (a) document the progress made during the reporting period in planning, coordinating, and implementing specific erosion control and sediment reduction projects under the program, (b) summarize the total number of sites treated under the program to date, (c) identify the high-priority sites to be addressed in the coming year of the program and discuss the steps needed to implement an erosion control or sediment reduction project at each site, (d) identify funding that has been secured to date and the amount of new funding that was

secured over the reporting period, and (e) identify steps to be followed to secure additional needed funding over the next year.

20. 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 from flooding, tsunami wave run-up, erosion, and earth movement; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

21. Protection of Archaeological Resources

(A) **PRIOR TO COMMENCEMENT OF PHASE 2 DEVELOPMENT,** the additional pre-project testing recommended by the archaeological report in the location between Port Kenyon and the Salt River be conducted and a qualified cultural resource specialist analyze the significance of any resources discovered. If an area of historic or prehistoric cultural resources or human remains are discovered during the course of the project or pre-construction testing, all construction within twenty (20) meters of the discovery shall cease and shall not recommence except as provided in subsection (B) hereof, and a qualified cultural resources specialist shall analyze the significance of the find.

(B) A permittee seeking to recommence construction following discovery of the cultural deposits shall submit an archaeological plan for the review and approval of the Executive Director.

1. If the Executive Director approves the Archaeological Plan and determines that the Archaeological Plan's recommended changes to the proposed development or mitigation measures are *de minimis* in nature and scope, construction may recommence after this determination is made by the Executive Director.

2. If the Executive Director approves the Archaeological Plan but determines that the changes therein are not *de minimis*, construction may not recommence until after an amendment to this permit is approved by the Commission.

22. Final Public Access Plan

(A) **PRIOR TO DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL, OR SUCH ADDITIONAL TIME AS THE EXECUTIVE DIRECTOR MAY GRANT FOR GOOD CAUSE**, the applicant

shall submit, for the review and approval of the Executive Director, a final public access plan providing for public access at Riverside Ranch within two years of completion of the authorized Phase 1 construction activities.

1. The plan shall demonstrate all of the following:

   a. Public access amenities shall be provided at Riverside Ranch within two years of completion of the authorized Phase 1 construction activities.

   b. Public access amenities shall include, at a minimum:

      (i) Public parking for a minimum of six to eight vehicles;

      (ii) A trail suitable for foot traffic on top of and along the entire length of the new setback berm;

      (iii) A viewing platform at the seaward end of the setback berm trail;

      (iv) At least two interpretive panels or signs describing the restoration project and/or issues, information, and history related to the Eel River Estuary. A minimum of one interpretive panel/sign shall be co-located with the viewing platform, and at least one interpretive panel/sign shall be located at or near the parking area near the beginning of the berm trail; and

      (v) Access for non-motorized boating located at or near the parking area.

   c. All public access areas and amenities shall be available to the general public free of charge at a minimum during daylight hours (i.e., one hour before sunrise to one hour after sunset) each weekend of the year.

2. The plan shall include, at a minimum, the following:

   a. A clear depiction of all proposed public access areas and amenities, including, but not limited to, all parking areas, trails, walkways, boating access points, restrooms, bench seating, trash and recycling receptacles, bicycle racks, and/or other public access amenities as proposed;

   b. Clear identification of all parameters for use of the site by the public, including hours and days of admittance, types of access available (e.g., pedestrian or other user group access, whether or not dogs are allowed, etc.), and other applicable parameters;

   c. A signage plan identifying all signs and any other project elements that will be used to facilitate, manage, and provide public access to the approved project, including identification of all public education/ interpretation features that will be provided on the site (educational displays, interpretive signage, etc.). Sign details showing the location, materials, design, and text of all public access signs shall be provided. Signs shall be designed so as to provide clear information without impacting public views and site character. At a minimum, one public access interpretive sign with appropriate (to Eel River Estuary) issues,

information, and history shall be placed both at the public viewing platform at the seaward of the berm trail and also at at least one location at or near the parking area. Public access signage shall acknowledge the participants in the design and provision of the public access components, including the California Coastal Commission.

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

23. State Lands Commission Review

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall provide to the Executive Director a written determination from the State Lands Commission that:

(A) No State or public trust lands are involved in the development; or

(B) State or public trust lands are involved in the development and all permits required by the State Lands Commission have been obtained; or

(C) State or public trust lands may be involved in the development, but pending a final determination an agreement has been made with the State Lands Commission for the approved project as conditioned by the Commission to proceed without prejudice to that determination.

24. Department of Fish & Game Consistency Determination

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall provide, for the review and written approval of the Executive Director, a copy of a Consistency Determination (CD) issued by the Department of Fish and Game pursuant to the California Endangered Species Act, or evidence that no CD is required. The applicant shall inform the Executive Director of any changes to the project required by the Department. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

25. Department of Fish & Game SAA Approval

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall provide, for the review and written approval of the Executive Director, a copy of a Streambed Alteration Agreement (SAA) issued by the Department of Fish and Game, or evidence that no SAA is required. The applicant shall inform the Executive Director of any changes to the project required by the Department. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

26. Regional Water Quality Control Board Approval

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall provide, for the review and written approval of the Executive Director, a copy of a permit issued by the North Coast Regional Water Quality Control Board, or evidence that no permit is required. The applicant shall inform the Executive Director of any changes to the project required by the Board. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

27. U.S. Army Corps of Engineers Approval

PRIOR TO COMMENCEMENT OF PHASE ONE (1) CONSTRUCTION, the permittee shall provide to the Executive Director a copy of a permit or permit amendment issued by the Army Corps of Engineers, or letter of permission, or evidence that no permit or permission is required. The applicant shall inform the Executive Director of any changes to the project required by the Army Corps of Engineers. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

28. Submittal of Final Federal Biological Opinions

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit evidence, for the review and written approval of the Executive Director, that the National Marine Fisheries Service (NOAA-Fisheries) and the U.S. Fish and Wildlife Service have issued final Biological Opinions, and, if necessary, Incidental Take Permits, in support of the project authorized by this permit and that are consistent with all terms and conditions of this permit. The applicant shall inform the Executive Director of any changes to the project required by the federal 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 determines that no amendment is legally required.

29. Caltrans Encroachment Permit

PRIOR TO COMMENCEMENT OF PHASE TWO (2) CONSTRUCTION, the applicant shall provide to the Executive Director a copy of an encroachment permit issued by Caltrans for project activities located around Highway 211, or evidence that no permit is required. The applicant shall inform the Executive Director of any changes to the project required by Caltrans. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

30. Humboldt County Encroachment Permit

PRIOR TO COMMENCEMENT OF PHASE ONE (1) CONSTRUCTION, the applicant shall submit for the review and approval of the Executive Director a copy of an

encroachment permit issued by Humboldt County, or evidence that no permit is required. The applicant shall inform the Executive Director of any changes to the project required by the County. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

IV. FINDINGS & DECLARATIONS:

The Commission hereby finds and declares as follows:

A. BACKGROUND & ENVIRONMENTAL SETTING

(1) THE DECLINE OF THE SALT RIVER'S HYDROLOGIC FUNCTION OVER TIME

The Salt River is a tributary to the Eel River Estuary located approximately five miles south of Humboldt Bay and 15 miles south of Eureka near the city of Ferndale (Exhibit Nos. 1-3). The Salt River Basin is approximately 47 square miles in size, and the main river channel spans an approximate length of ten miles from its confluence with the Eel River (located approximately one mile inland from the mouth of the Eel River) to the outer Ferndale bottomlands near Waddington Road. Smith, Reas, Francis, Williams, and Coffee Creeks (ordered from west to east, originating in the Wildcat Hills south of Ferndale) are the primary tributaries to the Salt River. It is believed that at one time the Salt River occupied a former channel of the Eel River that was left behind as the dominant river channel migrated north across the delta over centuries of change (Downie & Lucey 2005). Historically, the Salt River was largely influenced by tidal action and was the principal slough tributary to the Eel River Estuary (Exhibit No. 4).

In the 1800's, the Salt River had four anadromous freshwater tributaries, seven smaller drainages and several significant estuarine tributaries. At Port Kenyon (approximately four miles upstream from the confluence of the Salt and Eel Rivers), the river was approximately 200 feet wide and 15 feet deep and was large enough to accommodate small ocean steamers. Today, in that same area, the channel is undefined and marshy, and only Francis Creek supports severely limited habitat for some species of anadromous fish (salmonid access to Williams and Coffee Creeks has been completely eliminated). In addition, only a small fraction of the original Salt River estuary complex is currently subject to tidal influence.

Past and ongoing land use practices in the surrounding area in combination with natural geographic and geologic factors and processes have contributed to the hydrologic dysfunction and ecological decline of the Salt River. In the 1870's, a shipping industry was established along the banks of the Salt River in the town of Port Kenyon, which facilitated the growth of agriculture in the area and supported several sawmills and canneries. In the 1880's, according to the Salt River Watershed Assessment (Downie & Lucey 2005), "…there was a substantial effort to reclaim tidelands in the western delta. A reclamation district was formed, and an estimated 2,900 acres of tidelands were targeted for

reclamation. Levees and tidegates were installed along and across waterways in order to convert tidelands into agricultural land. The actions of widespread tideland reclamation across the Eel River Delta reduced the tidal prism of the Eel River Estuary, which contributed to the reduced the size of the Salt River. Also, several of the creek tributaries to the Salt River were channelized in attempt to reduce the risks of flooding and to accommodate property boundaries."

The severely aggraded (filled in with sediment) condition of the channel that characterizes the Salt River today has largely resulted from historical (and ongoing) land reclamation activities, past levee and tide gate construction in the area, and uncontrollable and (to a lesser extent) controllable sediment loads related to landslides, bank erosion, earth flows, timber harvesting practices, and road-related sources in the Wildcat Hills. The river's various tributary watercourses naturally transport massive loads of sediment each year to the Salt River, which is located in a depositional area on a low-gradient alluvial floodplain, due to the combined effects of steep topography in the Wildcat Hills, relatively high rainfall, unstable geological structure, high rates of tectonic activity (including both uplift and subsidence in the delta), and highly erodible soils. Periodic flooding from the Eel River (e.g., in 1964) also has deposited large amounts of sediment, filling the historic channels that helped to drain the basin.

In addition, the river system's ability to maintain hydraulic conveyance and cleanse sediment deposits from the channel has been diminished by a number of factors. Accumulated sediment in the river channel has led to the growth of woody vegetation (primarily willows and alders) within the channel itself, which in turn has led to more sediment trapping and fish passage blockage. Furthermore, the eastern portion of the Salt River Basin has been diverted (due to sediment sills and natural debris blockage), resulting in a 42 percent reduction in the size of the basin. Williams and Coffee Creeks no longer flow into the Salt River, and the river currently receives flows only from Francis Creek and tributaries west of Francis Creek. The decreased flows in the Salt River have exacerbated the channel aggradation problem. Infilling of the mainstem channel has essentially split the Salt River Basin into two separate watersheds, with flows from Williams and Coffee Creeks flowing north into Old River via Perry Slough (Exhibit No. 5). Importantly, a massive reduction of tidal influence has reduced the system's ability to clear sediment deposits from the channel.

In general, the Salt River has filled in with sediment faster than that sediment can be removed naturally, due to the elimination of channel cleansing forces such as flow volume and tidal exchange. Today, the main channel of the Salt River and the lower reaches of its tributaries are choked with sediment and riparian vegetation and have lost nearly all natural hydraulic function.

(2) RESULTING FLOODING AND WATER QUALITY PROBLEMS

The hydraulic dysfunction of the Salt River has led to significant annual flooding and water quality problems in the region for many years. Agriculture is the principal land use in the lower Salt River Basin (Exhibit No. 3). Most of the lands in the area are zoned

Agriculture Exclusive–60 acre minimum parcel size under the Humboldt County certified LCP. The City of Ferndale (population approximately 1,370), which is outside the coastal zone but surrounded by the coastal zone boundary on three sides, also is located in the lower Salt River Basin. As sediment loads continually aggrade drainages each winter during the rainy season, the Salt River and the lower reaches of its tributaries overflow their banks, resulting in almost perpetual flood conditions across several areas, including public and private ranch roads and infrastructure, residences, and agricultural lands.

According to the applicant, based on interviews with producers and ranchers in the area, approximately 750 acres of mostly prime agricultural lands (mostly dairy and grazing lands), are taken out of production for one to eight months each year due to chronic flooding. Forage productivity is greatly compromised by inundation impacts, and agricultural producers must bear production losses and the additional expenses associated with supplemental feed, pumping out floodwater, and farming and re-seeding flooded areas. Road culverts routinely become plugged by sediment, further exacerbating flooding and requiring regular maintenance and expense to landowners in the region and the County.

In addition to regular and sustained flooding in the region, the hydrologically impaired condition of the Salt River channel leads to water quality problems as well. High quantities of nutrients from surrounding agricultural land present water quality problems in the mainstem of the river as well as in the estuary. Livestock from surrounding ranch lands has access to the river and streams in many locations within the basin, resulting in trampling of stream banks and bank erosion, poor riparian plant recruitment, and direct input of fecal and urine contaminants. Fish spawning habitat in the river basin and lower tributaries is inadequate due to excessive amounts of fine sediments. Other factors that influence salmonid habitat such as water temperature, water chemistry, and turbidity also are adversely affected by the hydrologic impairment of the river.

Of great significance for water quality is the fact that sedimentation and flow volume reduction in the Salt River have reduced channel capacity and the receiving water flows to the point that the effluent from the City of Ferndale's wastewater treatment plant, located near the confluence of the Salt River and Francis Creek, violates water quality standards. Historically, water flows within the Salt River were sufficient to provide the required dilution for the discharge from the wastewater treatment plant. In 2003, after hundreds of accumulated water quality violations, the North Coast Regional Water Quality Control Board issued a Cease and Desist Order (CDO) to the City's facility for the violation of effluent discharge standards, and the Board imposed a moratorium on new sewer hookups for the City. Treated effluent has on occasion flowed undiluted into residential areas and agricultural lands, and sediment deposition near the confluence of Francis Creek and the Salt River put the entire wastewater treatment plant at increasing risk of being flooded. In December of 2009, the Commission approved CDP No. 1-09-024, which authorized an upgrade to the City's wastewater treatment facility (utilizing tertiary treatment of wastewater) to bring it into compliance with water quality and waste discharge standards as directed by the CDO provisions mandated by the NCRWQCB. The failure of the City to

comply with water quality regulations is directly related to the ever-worsening channel conditions in the Salt River.

(3) ECOLOGICAL DIVERSITY IN THE SALT RIVER AREA

The floodplain of the Eel River extending from the mouth of the river up to the confluence of the Van Duzen River and the Eel River near Highway 101 and Alton approximately 12 miles inland is known as the Eel River Delta. The delta, which covers approximately 50 square miles (~33,000 acres), is a mostly flat, depositional region that once was comprised of an intricate network of sloughs, side channels, and open water. Historically, the combination of tidal exchange and a substantial input of freshwater provided vast acreages of salt and brackish marsh habitats, sloughs, side channels, and open water, which in turn created a hospitable environment for a rich assemblage of aquatic and estuarine species. Today, the Eel River Estuary is still recognized as one of the most ecologically important tidal marsh habitats in the state. As the third largest estuary in the state, the Eel River Estuary, along with Humboldt Bay, is the only substantial tidal marsh habitat between San Francisco and Coos Bay, Oregon. The Salt River is the lowermost tributary to this important estuarine system and, as discussed above, historically functioned largely as a tidal slough.

According to an 1888 observation cited in the Final Environmental Impact Report (FEIR) prepared for the proposed project, pre-settlement vegetation in the delta consisted of "forests of pine, spruce and here and there redwood, with alder growing near the water courses…looking east from the ocean, the forest formed an almost unbroken line cross the low land" [page 3.3-2]. Extensive salt marsh and mudflat habitat also were documented, as were "fern prairies" in upland areas around Ferndale (hence the place-name origin) and Waddington to the east. Vegetation along the channel banks likely was influenced by salt water intrusion, so that sloughs were mostly open, free-flowing, and lined with dense sedge growth.

By 1941, according to aerial photographs, much of the project area was devoid of historic vegetation due to farming practices in the region. The reduction in historic estuarine habitats is directly correlated with the increase of agricultural land in the delta. In addition, removal of colonizing riparian vegetation by landowners in an effort to keep the river channel free from debris and sediment accumulation was routine. In the 1970's, the Department of Fish and Game began to curtail the practice of riparian vegetation removal in the area, and willows and alders have since proliferated in the main river channel and along its banks, further aggravating the sediment accumulation problems discussed above.

Today, the primary land cover type in the approximately 808-acre proposed project area, as well as throughout the surrounding Eel River Delta, is agricultural grassland (~600 acres in the proposed project area). The vegetation of the agricultural grasslands in the area consists primarily of various nonnative pasture grasses such as perennial ryegrass, Kentucky bluegrass, creeping bentgrass, common velvet grass, common oat grass, and reed canary grass (in wet areas). A suite of common nonnative flowering herbs also are interspersed throughout the agricultural grasslands including clovers, creeping buttercup, wild radish,

hairy cat's-ear, common dandelion, wild fennel, poison hemlock, bindweed, dock, English plantain, and various others. Wildlife species that frequent the agricultural grasslands and "ruderal" areas (which the FEIR describes as dominated mostly by nonnative invasive species) include various rodents (e.g., California vole, Pacific shrew, coast mole, mice, rats, etc.), other mammals (e.g., striped skunks, raccoons, opossums, feral cats, and coyotes), passerine birds (e.g., different species of swallows, sparrows, blackbirds, and others), shorebirds (e.g., long-billed curlew, marbled godwit, common snipe, dunlin, whimbrels, sandpipers, and others), raptors (e.g., white-tailed kite, northern harrier, peregrine falcon, red-tailed hawk, western burrowing owl, and others), herons and egrets, and a diversity of waterfowl (when pastures are inundated during periods of substantial precipitation).

In addition to serving as agricultural land for livestock grazing, hay production, and other agricultural uses, it is important to note that the agricultural grasslands in the area also, in many areas, function as seasonal wetlands. This dual function is recognized in the County's certified LCP through the designation of much of the agricultural land in the region as "transitional agricultural wetlands" with a "T" combining zone overlay. The stated purpose of the overlay designation is "to permit agricultural use as a principal permitted use while providing that development in transitional agricultural lands is conducted in such a manner as to maintain long-term wetland habitat values and minimize short-term habitat degradation within these environmentally sensitive habitat areas" (Humboldt County certified Coastal Zoning Regulations (CZR) Section 313-35.1.1). The zoning regulations specify various limitations on diking, dredging, filling, and land divisions in transitional agricultural lands and require certain mitigations to be employed for all new development in these areas.

Aside from the agricultural grasslands and seasonal wetlands, other principal land cover types in the delta include riparian forest and scrub (~97 acres in the proposed project area), estuarine marsh (~36 acres in the proposed project area), estuarine aquatic habitats (~11 acres in the proposed project area), and freshwater marsh (~1 acre in the proposed project area).

The approximately 97 acres of riparian habitat in the project area exists within a 50-200-foot-wide corridor within and around the Salt River channel and adjacent levees as well as within narrower bands and patches along tributary drainages. The riparian vegetation consists mostly of various species of willows, red alder, and black cottonwood, along with California blackberry, thimbleberry, and other shrub and herbaceous species. The riparian habitat supports a relatively high diversity of birds throughout the year, including breeding habitat for neotropical migratory and resident species. Two state-listed (under the California Endangered Species Act) "endangered" bird species that occur in the riparian habitat in the project area are willow flycatcher (*Empidonax trailii*) and yellow-billed cuckoo (*Coccyzus americanus*). Other sensitive bird species (listed by the Department of Fish and Game (DFG) as "Species of Special Concern") that are known to occur or have a high potential to occur in the riparian area (based on 2010 surveys) include black-capped chickadee (*Poecile atricapillus*), yellow warbler (*Dendroica petechia*), purple martin (*Progne subis*), and nesting white-tailed kite (*Elanus leucurus*). The riparian habitat in the

area also hosts various species of reptiles, amphibians (including the state-listed "species of concern" northern red-legged, *Rana aurora*), and mammals.

The ~36 acres of existing estuarine marsh in the project area is limited to the banks of the Salt River channel adjacent to the northern (downstream) half of Riverside Ranch. The tidal marsh habitat is dominated by the nonnative invasive dense-flowered cordgrass along with native species such as pickleweed, saltgrass, slender arrowgrass, and spearscale. Lyngbye's sedge (*Carex lyngbyei*), a CNPS List 2.2[1] plant commonly associated with brackish marsh habitats, was documented in 2010 surveys growing in a continuous, 3-to-15-foot-wide band along both channel banks of the Salt River for a span of nearly two river miles from the lowest-most reach of the project area to as far upstream as Port Kenyon Road. In addition, Humboldt Bay owl's-clover (*Castilleja ambigua* ssp. *humboldtiensis*), a CNPS List 1B.2 species[1], also was documented at three locations (totaling 58 individuals). Though not detected during surveys, the salt marshes in the project area support habitat for Point Reyes bird's beak (*Cordylanthus* [*Chloropyron*] *maritimus* ssp. *palustris*), also a CNPS List 1B.2 species, sea watch (*Angelica lucida*), a CNPS List 4.2 species,[1] and others. Because the estuarine marsh habitat in the project area is fairly narrow and linear, its functionality as wildlife habitat is limited. Species that frequent estuarine marsh habitat in general in the Eel River Delta that have the potential to occur in the project area include various birds (e.g., song sparrow, marsh wren, herons, soras, yellow rails, mallard, American green-winged teal, gadwall, and various others) and mammals (e.g., native California voles and white-footed mice as well as nonnative rats and house mice).

The Salt River and its tributaries provide approximately 11 acres of aquatic habitats (estuarine and freshwater channels) in the project area. At low tides, a small amount of mudflat habitat is exposed, especially near the Eel River confluence. Portions of the lower Salt River channel support eelgrass beds (*Zostera marina*), though the populations tend to die-back in the winter, presumably due to freshwater influences. Eelgrass beds are considered to be a type of environmentally sensitive habitat worthy of protection because they function as important shelter, foraging, and in some cases spawning habitats for a variety of fish and invertebrate species, including the state- and federally listed coho salmon (*Oncorhynchus kisutch*). The long, green leaves of the aquatic flowering plant also are an important food source for certain birds, such as black brant (small migratory geese). In addition, the federally endangered tidewater goby (*Eucyclogobius newberryi*) has been documented (in 2010 surveys) on Riverside Ranch in small quiet pools downstream of tidegates adjacent to the Salt River channel.

The Salt River historically functioned as a migration corridor for adult salmonids reaching spawning habitat in tributaries within the Wildcat Mountains and provided rearing habitat for juveniles migrating downstream to the Eel River estuary. Southern Oregon/Northern

[1] California Native Plant Society (CNPS). 2011. *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; **LIST 4** = Uncommon in California; **0.2** = fairly endangered in California.

California Coho Salmon, California Coastal Chinook Salmon (*O. tshawytscha*), and Northern California Steelhead Trout (*O. mykiss irideus*), all of which are listed as "threatened" under the federal Endangered Species Act (Southern Oregon/Northern California coho also is listed as "threatened" under the state ESA), historically were documented in the river, and small populations of all three salmonid species, as well as Coastal Cutthroat Trout (*O. clarkia clarkia*), a DFG "Species of Special Concern" that occurs at the southern extent of its geographic range in the area, have been documented more recently in the limited available habitat in the watershed. Current poor fish passage conditions in many parts of the basin coupled with riparian vegetation loss in some locations and water quality problems related to water temperature, water chemistry, turbidity, and sediment load have resulted in drastic population declines of all species of salmonids that formerly were more widespread in the Salt River and its tributaries. The Salt River Ecosystem Restoration Project (proposed project) was developed to respond to these problems, with the benefits of reduced flood impacts, improved fish passage, improved water quality, improved and expanded habitat for riparian and wetland species, and improved sediment transport.

B. PROJECT DESCRIPTION

(1) PROJECT BACKGROUND & GOALS

Collaborative planning to address the myriad of resource problems associated with flooding and sedimentation along the Salt River dates back at least several decades. In 1987, the Eel River Resource Conservation District was formed as a special district of the County in part to address flooding and sedimentation problems around the Salt River. [In 1993 the district was renamed the Humboldt County RCD and expanded to a county-wide special district focusing on cooperation with voluntary landowners to reduce soil erosion, conserve water, and improve water quality.] In 2004, the Salt River Advisory Group was established to build partnerships between private landowners living adjacent to the Salt River and public entities involved in planning for the proposed project. In 2007, the applicant, as the lead agency for CEQA purposes, solicited public comments on the Notice of Preparation of the Environmental Impact Report for the proposed project. In February of 2011 the applicant certified the project's Final EIR. Project implementation is expected to begin in the summer of 2012, with some limited development proposed to occur this year prior to the start of rainy season.

The Salt River Ecosystem Restoration Project (proposed project) is comprised of two major components (Exhibit No. 6). Phase 1 involves restoring approximately 400 acres of estuarine marsh, estuarine aquatic, riparian, and freshwater wetland habitats on the lower 2.5 miles of the Salt River and on the 440-acre Riverside Ranch former dairy farm property owned by DFG. Phase 2 involves restoring hydraulic capacity, in-stream fish habitat, riparian vegetation, and improved water quality along an additional approximately 5 miles of the Salt River, ~2,900 feet of lower Francis Creek, and ~500 feet of lower Eastside Drainage. The applicant also is proposing long-term adaptive management activities as proposed in the Adaptive Management Plan (Exhibit No. 20). The EIR addressed an additional component of the project <u>not</u> proposed under this coastal development permit

application, which is the ongoing implementation of a variety of sediment reduction and erosion control actions in the Williams Creek, Francis Creek, and Reas Creek sub-watersheds as funding and landowner cooperation allow (Exhibit No. 24). Much of this work occurs outside of the coastal zone and includes upslope channel restoration, riparian planting, bank stabilization, livestock fencing, and road drainage upgrades.

The principal goals of the project include the following:

- Restore the Salt River channel and adjacent riparian floodplain by increasing hydraulic conveyance and constructing habitat features that reestablish ecological processes beneficial to fish and other native species;
- Restore historic estuarine habitat and tidal connectivity within the lower Salt River;
- Improve water quality and drainage efficiency across the floodplain;
- Manage excess sediment loads by maximizing fluvial and tidal channel sediment transport capacity;
- Design and maintain active and passive sediment management areas that minimize long-term impacts to land use and ecological function;
- Initiate a long-term corridor adaptive management process that maximizes ecological restoration success in a working landscape by:
    - Reducing headwater erosion and sediment delivery to the Salt River floodplain;
    - Increasing the volume and efficiency of clear water drainage from the upstream watershed and adjacent agricultural land; and
    - Providing and maintaining sediment management areas that minimize impacts to land use and ecological function.

The proposed project is being undertaken by a collaboration of partners including the applicant, private landowners in the region, the County of Humboldt, the City of Ferndale, DFG, the State Coastal Conservancy (SCC), the Army Corps of Engineers, NOAA-Fisheries, and others. The proposed project is being funded in part by the State Water Resources Control Board (Prop. 50), the SCC, Ducks Unlimited, DFG (Fisheries Restoration Grant Program), the California Department of Conservation, Caltrans, and other sources.

(2) PROPOSED PHASE 1: RIVERSIDE RANCH RESTORATION

Phase 1 of the proposed project involves the restoration of the lower 2.5 miles of the Salt River and over 300 acres of estuarine marsh habitats and approximately 20 acres of estuarine aquatic and mudflat habitats on Riverside Ranch, an approximately 440-acre former dairy farm property abutting the lower Salt River that was purchased by Western Rivers Conservancy in 2007 before being conveyed to the Department of Fish and Game in 2010 (Exhibit No. 9). The Phase 1 project area spans the tidally influenced portion of

the Salt River channel corridor from its confluence with Cutoff Slough near the downstream end of Riverside Ranch up to the confluence of the river with Reas Creek near the upstream end of Riverside Ranch. Approximately 2.5 miles of the river channel would be excavated in this reach to more closely resemble its historic channel configuration and to expand the tidal prism, which is intended to allow for tidal exchange within the newly created tidal habitats on Riverside Ranch as well as to expand and reestablish an enhanced tidal prism capable of cleansing sediment deposits from the upstream river reach. Approximately 13 acres of riparian vegetation (primarily willows and alders) growing within the river channel (due to chronic sedimentation) would be removed outside of bird breeding and nesting seasons and prior to channel excavation (proposed for fall 2011 prior to the start of proposed construction in early summer 2012).

In addition to the main channel excavation, a network of internal slough channels (totaling approximately 3.75 miles in length) also would be excavated across the Riverside Ranch property to restore over 10 acres of estuarine aquatic channel and mudflat habitats. Additional excavations (~60,000 cubic yards) would occur in certain areas to ensure appropriate elevations (e.g., between approximately 4.5 feet and 7.5 feet NAVD88) across the proposed tidal marsh restoration areas. The existing perimeter levees that line the Salt River on Riverside Ranch would be lowered and breached in key locales at the north and south ends of the property to allow for tidal inundation of the estuarine marsh and slough channel restoration areas while at the same time maximizing the length of the river exposed to tidal exchange, which is key to maximizing hydraulic conveyance and sediment transport through the river system upstream from Riverside Ranch.

Most of the excavated sediments from the proposed river and slough channel restoration dredging (~185,000 cubic yards) would be used to construct a proposed setback berm on Riverside Ranch that is needed to protect adjacent properties and agricultural lands from flooding, including the approximately 55 acres of agricultural land proposed to be retained in agricultural production on Riverside Ranch inland of the new berm. The proposed setback berm would be approximately 11,000 feet long, would have a maximum height of ~14.75 feet (NAVD88) and top width of ~12 feet, and would have side slopes of 3:1 (horizontal:vertical). The proposed setback berm design includes culverts (with tidegates), maintenance access, and potential floodways for Eel River flooding. New livestock exclusion wire fencing (~4 feet tall with galvanized metal T-posts and 4- to 5-inch diameter juniper anchor posts) would be installed along the outer perimeter of the proposed new setback berm. Approximately 3,500 feet of existing berm along the northern boundary of the property also would be refurbished to match the dimensions of the proposed new setback berm. Approximately 121,000 cubic yards of the excavated sediments would be placed across ~13 acres of the estuarine marsh restoration area to maximize habitat complexity (e.g., through the creation of “high marsh ecotone” habitat areas between ~7.5 ft and 9 ft NAVD88) on the restored tidal marsh plain. Additional excavated sediments (~30,000 cubic yards) would be used to fill approximately 5,000 linear feet of existing agricultural ditches on the property.

The applicant does not propose to plant the restored estuarine marsh habitats but instead expects that naturally recruiting saline-tolerant plant species (such as slough sedge,

pickleweed, salt grass, and various others) will colonize the habitats naturally as tidal inundation is restored to the area (see relevant pages of Exhibit No. 18). The applicant proposes to monitor the area over time to determine whether it is developing an appropriate diversity of representative native estuarine marsh species. If the monitoring shows it is necessary, planting of regionally appropriate estuarine marsh species would occur. The restoration area also would be monitored for the spread of invasive exotic species such as dense-flowered cordgrass, and if necessary, an invasive plant eradication program would be implemented. The applicant does propose to plant approximately 25 acres of new riparian habitat along the restored river channel and along the outboard side of the proposed new setback berm. These areas would be planted with riparian vegetation that historically occurred in the delta including Sitka spruce, shore pine, willows, and various shrub species. The proposed riparian planting is intended in part to compensate for impacts to approximately 13 acres of riparian habitat growing in the Salt River channel proposed to be removed in order to implement the proposed restoration activities. Despite this riparian impact, the project has been designed to avoid impacts to approximately 18 acres of additional existing riparian habitat on the property.

Detailed habitat monitoring and adaptive management plans are attached as Exhibit Nos. 17-18 and 20 respectively. Phase 1 75% design plans are attached as Exhibit No. 9. Table 1 displays the proposed dredge and fill estimates for Phase 1 of the project. Additional project details are included in Tables 1-3 below.

Table 1. Dredge and fill volume and area estimates for the proposed Riverside Ranch restoration project (Phase 1 of the Salt River Ecosystem Restoration Project, which spans approximately 472 acres).

PHASE 1: RIVERSIDE RANCH RESTORATION				
	Permanent[1] Dredge & Fill Estimates			**Temporary[2] Dredge & Fill Estimates**
Description	**Cubic Yards**	**Acres**	**Linear Feet**	**Cubic Yards**
Salt River Channel (Dredge Native)	183,400	22.2	12,900	~1,600 cubic yards of gravel/rock/sheet-pile/soil [3, 4]
Internal Sloughs (Dredge Native)	47,000	8.7	19,700	
Lower Marsh Plain (Dredge Native)	60,600	~50	Not applicable	
Raise Marsh Plain (Fill Native)	121,300	~35	Not applicable	
New Setback Berm (Fill Native)	185,000	13.7	11,360	
Berm Outboard Ditch (Dredge Native)	31,400	13	10,500	
Fill Existing Ag Ditches (Fill Native)	30,250	~3	5,000	
Lower Existing Levees (Dredge Native)	14,150	~5	7,000	
Total Permanent Dredge Impacts	**336,550**	**~99**	**>50,100 (>9.5 miles)**	
Total Permanent	**336,550[5]**	**~52[5]**	**>16,360[5]**	

PHASE 1: RIVERSIDE RANCH RESTORATION				
	Permanent[1] Dredge & Fill Estimates			Temporary[2] Dredge & Fill Estimates
Description	**Cubic Yards**	**Acres**	**Linear Feet**	**Cubic Yards**
Fill Impacts			**(>3 miles)**	

[1] Permanent impact areas are defined as areas that will experience permanent dredge/fill.

[2] Temporary impact areas are areas where temporary construction disturbance could occur and are within the project area. These areas are proposed to be utilized for haul roads, staging areas and stockpiling areas and would be restored back to pre-construction conditions. These areas exclude the proposed soil amendment areas on agriculture lands (Exhibit Nos. 6 and 13).

[3] Does not include area bound by Salt River channel and proposed berm (~400 acres) that is proposed to be temporarily disturbed for construction access and material hauling. This area is proposed to be de-compacted and restored back to pre-construction conditions.

[4] Temporary fill for construction access and coffer dam placement in Salt River Channel.

[5] The only permanent fill impacts that would result in the conversion of existing wetland habitat to upland habitat would result from the portion of the proposed new setback berm above 9 feet NAVD88, which equates to an area of ~13.7 acres in size. The remainder of fill impacts would not result in the conversion of existing wetland habitat to upland habitat but rather would be placed for wetland habitat restoration purposes. See Finding IV-D below.

Table 2. Acreages of coastal wetlands[1] permanently impacted and created in proposed Phase 1 (Riverside Ranch restoration). The Phase 1 project area footprint is ~472 acres.

Existing Wetland Acreage in the ~472-acre Phase 1 Project Area	Wetland Acreage to be Converted to Uplands	Upland Acreage to be Restored to Wetlands	Projected Wetland Acreage Post-Project Implementation
463	13.7[2]	13.7[3]	463

[1] As delineated in the *Uplands Delineation for Salt River Restoration Project, Ferndale, CA* (Army Corps of Engineers, HCRCD, and W&K, rev. version April 2011).

[2] Although native fill from the channel excavation is proposed to be placed across over 50 acres for tidal marsh restoration purposes, only 13.7 acres of existing seasonal wetlands (agricultural lands) would be permanently converted to upland habitat (portions of the proposed new setback berm above 9 feet NAVD88 on the tidal side of the berm and above existing ground level on the outboard side of the new berm).

[3] The existing upland habitat proposed to be restored to wetland habitat includes ~1.25 miles of existing upland access road proposed to be removed and restored, an existing concrete slab and developed dairy facilities near the property entrance proposed to be removed and restored, and the lowering of existing upland elevations and levees in the proposed estuarine marsh restoration area. Additional areas in the tidal marsh restoration area that would receive fill for restoration purposes would remain wetland in nature (restored "high marsh ecotone" habitat).

Table 3. Existing and proposed land use and habitat projections for the 472-acre Phase 1 project area (Riverside Ranch restoration area including the Salt River channel up to Reas Creek). Also see Exhibit Nos. 7 and 8.

Habitat Types	Existing Acreage in the Phase 1 Area	Acreage Proposed to be Impacted/Removed and/or Converted	Acreage Proposed to be Restored, Created, &/or Retained
Estuarine Marsh Wetlands (including salt, brackish, and "high	36	14	334

Habitat Types	Existing Acreage in the Phase 1 Area	Acreage Proposed to be Impacted/Removed and/or Converted	Acreage Proposed to be Restored, Created, &/or Retained
marsh ecotone wetlands")			
Estuarine Aquatic & Mudflat (e.g., eelgrass, algae, widgeon grass)	8	4	21
Riparian (forest & scrub)	31	13	43
Freshwater Marsh & Channel Wetlands	<1	0	<1
Seasonal Freshwater Wetlands	3	3	<1
Agricultural/Grasslands/Levees	358	303[1]	73[2]
Scrub-Shrub (e.g., blackberry, California rose, coyote brush)	8	8	0
Ruderal (mostly invasive spp.)	20	20	0
Developed (structures, roads, etc.)	8	8	<1
TOTALS	**472**	**365**	**472**

[1] This acreage also includes grassland habitat on existing levees – some of which is not currently used for agricultural purposes.

[2] 55 acres of agricultural lands are proposed to be retained in agricultural production on the inland side of the proposed new setback berm and managed for livestock grazing and Aleutian cackling goose grazing habitat. 18 acres of new setback berm habitat is proposed to be seeded with native and erosion control grass species above 9 feet NAVD88 on the tidal side and on the entire slope of the outboard side.

(3) PROPOSED PHASE 2: SALT RIVER CHANNEL CORRIDOR RESTORATION

Phase 2 of the proposed project involves the restoration of an additional five miles of the Salt River channel corridor from Reas Creek to approximately 500 feet upstream of the Perry Slough confluence (Exhibit No. 10). Geomorphic elements of the proposed restored channel corridor include: (1) a restored approximately 15-foot- to-24-ft-wide active channel, which would be designed to function as a high velocity channel capable of transporting sediment and water volumes over a wide range of flows from summer base flows to high flows that would only be exceeded approximately 60-70 days per year; (2) a variable width (ranging from as narrow as 12 ft to as wide as ~188 ft) active bench adjacent to each side of the restored active channel, which would be designed in some areas to function as a sediment deposition zone where future sediment management activities would occur in three proposed "active sediment management areas" as needed pursuant to the proposed Adaptive Management Plan (Exhibit No. 20); and (3) a restored riparian forest corridor lining the outer edges of the active benches. The restored riparian forest corridor would be approximately 10 ft to 25 ft wide along each side of the restored channel reach, although in many areas the restored habitat would abut (enhance) existing riparian vegetation of up to 100 feet in width. The restored riparian forest habitat would be planted with Sitka spruce, black cottonwood, and other regionally appropriate riparian species as proposed in the Habitat Mitigation and Monitoring Plan (Exhibit Nos. 17 and 18). In addition, willows and other riparian trees would be planted (along a 10-25-foot-wide "active berm," separating the active channel from the active bench areas, to provide shading for the main river channel and help inhibit colonization by invasive species. The active bench areas would be restored as riverine wetland habitat planted with slough sedge, common spike rush, and salvaged native species. New "wildlife-friendly" livestock

exclusion wire fencing (~4 feet tall with galvanized metal T-posts and 4- to 5-inch-diameter cementless anchor posts) would be installed along the outer edges of the restored riparian forest habitat throughout the Phase 2 restoration reach along restoration areas that directly abut agricultural lands.

As with Phase 1, Phase 2 also would require extensive riparian vegetation removal prior to excavating the main river channel. Approximately 32 acres of riparian vegetation (primarily willows and alders) growing within the river channel would be removed outside of bird breeding and nesting seasons (proposed for summer to fall 2012) prior to channel excavation activities.

The proposed Salt River channel design is based on prospective flow conditions from Williams and Coffee Creeks, although it is recognized that the hydrologic function of both of these lower creek tributaries is degraded. The project anticipates that active and passive sediment management activities will be required to maintain optimal flows and sediment conveyance. Sediment management areas (SMAs) are intended to be integrated along the Salt River in coordination with floodplain and riparian vegetation enhancements. The proposed design includes three active SMAs (totaling 13 acres in size) and various passive SMAs (described as "active bench" habitat). Active SMAs would be constructed to emulate natural floodplains in designated areas along the river (e.g., near the confluence of Francis Creek) to reduce flow velocity and create conditions that promote settling of fine sediment. Active SMAs would be subject to periodic sediment removal activities during dry summer months to maintain topography, function, and sediment trapping efficiency (see the proposed Adaptive Management Plan, Exhibit No. 20). Passive SMAs (active benches) would function as floodplain and riparian areas that promote sediment deposition without the need for long-term sediment removal and maintenance, although the proposed Adaptive Management Plan proposes future sediment removal in these areas in the event that excessive sediment deposition occurs (the proposed AMP is discussed in more detail below).

Various "multi-function habitat elements" would be incorporated into active bench areas, including elevated vegetated berms (e.g., the proposed "active berm" along the restored active channel), engineered log jams, high flow pathways, backwater slough alcoves, and others. These features would be integrated into the channel corridor design primarily to diversify aquatic habitat (e.g., by creating pools, cover, and areas suitable for macro-invertebrates and refugia for fish and amphibians), increase morphologic complexity, promote (in designated active SMAs) or discourage sedimentation on the active bench, and direct flows into active bench areas and backwater slough alcoves (see typical elements in project plans, Exhibit No. 10, sheets C-42 to C-48). In addition, new boulder weirs would be installed at the confluences of Reas, Francis, and Williams Creeks with the main channel both for habitat improvement and bed gradient control purposes.

Phase 2 of the proposed project also would restore connectivity of the Salt River with Francis Creek and Eastside Drainage. The lower approximately 2,900 feet of Francis Creek would be realigned to restore the channel alignment that previously was realigned in the 1970's to accommodate the Ferndale wastewater treatment plant and to maximize grazing

land. The proposed creek channel restoration is designed to alleviate the chronic flooding in the area. In addition, an approximately 500-linear-foot portion of Eastside Drainage, a natural low-profile drainage swale that collects "clean" (i.e., mostly sediment-free) runoff from a network of street gutters, storm sewers, culverts, and drainage channels throughout the eastern side of Ferndale, would be rerouted to flow into Francis Creek near the City's wastewater treatment facility. This connection historically existed but has been lost to sediment deposition over time. A portion of the existing Eastside Drainage channel in the project area was excavated and realigned to flow into a new cross-pasture ditch that was dredged during a County of Humboldt emergency flood relief project (Commission Emergency Permit No. 1-10-035-G approved by the Executive Director on October 7, 2010, see Exhibit No. 12). The emergency channel alignments are proposed to be backfilled with the stockpiled native soil and restored to agricultural pastureland (see Phase 2 plans, Exhibit No. 10).

Most of the excavated sediments from the proposed river, creek, and drainage channel restoration activities (up to ~426,700 cubic yards) are proposed to be disposed of on upland agricultural pasturelands in the surrounding area pursuant to the proposed plans (Exhibit Nos. 6 and 13) and to property-specific sediment reuse plans that would be prepared for each property in accordance with the example Sediment Reuse Plan template (Exhibit No. 14). The material to be excavated from the channels consists mostly of "clean" upland soils from the tributaries in the Wildcat Hills and is viewed as a beneficial resource that various farmers and ranchers (see Appendix B) are interested in receiving for agronomic reuse. The identified upland areas proposed for sediment reuse were delineated in a collaborative effort by the Army Corps of Engineers and the applicant's consultants (see Substantive File Documents, page 2), and the delineations were verified by the Commission's ecologist (John Dixon). The applicant proposes to haul excess material not appropriate or available for sediment reuse "off-site for other beneficial reuses."

Finally, the project proposes new infrastructure and other development in the form of: (1) replacement of an existing failed 7-ft-wide by-10-ft-long reinforced concrete box culvert over Francis Creek at Port Kenyon Road with a new free-span, pre-fabricated 32-ft-wide by 42-ft-long arch culvert that would span the top width of the restored creek channel (see Exhibit No. 11); (2) installation of new gravel maintenance access roads within the project area footprint extending from Port Kenyon Road to the three proposed active sediment management areas for future maintenance purposes; (3) installation of a new 60-inch diameter, 20-ft-long elliptical culvert on Eastside Drainage to replace an existing access on the property that will be impacted as a result of the rerouting of the drainage channel; and (4) new gates along proposed permanent maintenance roads and a few other sites, none of which would block existing public access to the river.

Phase 2 of the proposed project would result in the restoration of approximately 11 acres of freshwater aquatic habitat, 32 acres of freshwater wetland habitats, and 85 acres of riparian habitat throughout the corridor restoration area. Detailed habitat monitoring and adaptive management plans are attached as Exhibit Nos. 17-18 and 20 respectively. Phase 2 50% design plans are attached as Exhibit No. 10. Table 4 displays the proposed dredge and fill

estimates for Phase 2 of the project. Additional project details and maps are included in Exhibit Nos. 11-14 and in Tables 4, 5, and 6 below.

Table 4. Dredge and fill volume and area estimates for the proposed Salt River channel corridor restoration project (Phase 2 of the Salt River Ecosystem Restoration Project, which spans approximately 336 acres).

PHASE 2: SALT RIVER CHANNEL CORRIDOR RESTORATION				
	Permanent[1] Dredge & Fill Estimates			**Temporary[2] Dredge & Fill Estimates**
Description	**Cubic Yards**	**Acres**	**Linear Feet**	**Cubic Yards**
Salt River Channel (Dredge Native)	387,700	70	27,750	~1,500 cubic yards of gravel[3, 4]
Francis Creek Channel (Dredge Native)	36,000	3	2,900	
Eastside Drainage (Dredge Native)	1,000	0.3	1,000	
Boulder Weirs at Reas, Francis, and Williams Creek Confluence (Fill)	500 (Rock)	0.3[3]	Not applicable	
Francis Creek Channel (Fill–Bridge Replacement)	50 (Concrete Footing)			
New Access Roads to Active SMAs (Fill)	350 (Gravel)			
Total Permanent Dredge Impacts	**426,700[5]**	**~73**	**31,650 (~6 miles)**	
Total Permanent Fill Impacts	**900[6]**	**0.3**	Not applicable	

1 Permanent impact areas are defined as areas that will experience permanent dredge/fill.

2 Temporary impact areas are upland or wetland areas where temporary construction disturbance could occur and are within the project area. These areas are proposed to be utilized for haul roads, staging areas and stockpiling areas and would be restored back to pre-construction conditions. These areas exclude the proposed soil amendment areas on agriculture lands (Exhibit Nos. 6 and 13).

3 Assumed 50 cubic yards of temporarily placed gravel base for each proposed construction entrance and temporary placement of coffer dams.

4 Does not include area within project limits and outside of permanent disturbance area (135 acres) that will be temporarily disturbed for construction access and material hauling. This area is proposed to be de-compacted and restored back to pre-construction conditions.

5 Excess excavated sediments are proposed to be placed off-site in delineated upland areas on surrounding agricultural properties (Exhibit No. 13) for agronomic benefit pursuant to property-specific sediment reuse plans proposed for future preparation in accordance with the proposed example Sediment Reuse Plan template (Exhibit No. 14).

6 Fill would result from replacement of failed culvert on Francis Creek at Port Kenyon Road with new bridge (bottomless arched culvert) spanning the top width of the restored creek channel, boulder weirs at the confluences of Reas, Francis, and Williams Creeks with the main channel for habitat improvement purposes and to control bed gradients, and new permanent maintenance access roads to active SMAs.

Table 5. Acreages of coastal wetlands[1] permanently impacted and created in proposed Phase 2 (Salt River Channel Corridor Restoration). The Phase 2 project area footprint is ~336 acres.

Existing Wetland Acreage in the ~336-acre Phase 2 Project Area	Wetland Acreage to be Converted to Uplands	Upland Acreage to be Restored to Wetlands	Projected Wetland Acreage Post-Project Implementation
293	0.3[2]	1.6[3]	294.3[3]

[1] As delineated in the *Uplands Delineation for Salt River Restoration Project, Ferndale, CA* (Army Corps of Engineers, HCRCD, and W&K, rev. version April 2011).

[2] Filled area accounts for replacement of failed culvert on Francis Creek at Port Kenyon Road with new bridge (bottomless arched culvert) spanning the top width of the restored creek channel, replacement agricultural bridge crossing over Francis Creek approx. 500 feet upstream from Port Kenyon Road, boulder weirs at the confluences of Reas, Francis, and Williams Creeks with the main channel for habitat improvement purposes and to control bed gradients, and new permanent maintenance access roads to active SMAs.

[3] The proposed project would result in a net gain of approximately 1.3 acres of wetland habitats due to delineated uplands in the project area corridor that are proposed to be converted to restored wetland and/or riparian habitats according to the proposed plans.

Table 6. Existing and proposed land use and habitat projections for the 336-acre Phase 2 project area (Salt River channel corridor restoration). Also see Exhibit Nos. 7 and 8.

Habitat Types	Existing Acreage in the Phase 2 Area	Acreage Proposed to be Impacted/Removed and/or Converted	Acreage Proposed to be Restored, Created, &/or Retained
Brackish Marsh Wetlands	0	0	4
Estuarine Aquatic	0	0	3
Freshwater Aquatic	3	0	11
Riparian (forest & scrub)	66	32	85
Freshwater Marsh & Channel Wetlands	1	<1	22
Seasonal Freshwater Wetlands	21	11	10
Agricultural/Grasslands/Levees	240	52	188
Scrub-Shrub (e.g., blackberry, California rose, coyote brush)	1	1	0
Ruderal (mostly invasive spp.)	3	3	0
Developed (structures, roads, etc.)	1	<1	<1
Sediment Management Areas	0	0	13[1]
New permanent access road or improved bridge crossing	0	0	<1
TOTALS	**336**	**~100**	**336**

(4) SUMMARY OF LAND USE AND HABITAT CHANGES OVERALL

The proposed project would greatly increase estuarine marsh, aquatic, and freshwater wetland habitats in the overall project area while at the same time convert approximately 325 acres of agricultural lands, including 52 acres of prime and 273 acres of non-prime agricultural lands (including grazed seasonal wetlands) to restored habitat types (Exhibit Nos. 7-8). The restoration project would improve or reconnect access to approximately 15 miles of salmonid spawning habitat in Reas, Francis, and Williams Creeks, improve over 7.5 miles of riverine channel habitat with multiple fish habitat features such as alcoves and

instream structures in the Salt River and lower Francis Creek, increase the availability of necessary transition (salt/freshwater) habitat for juvenile coho and other salmonids by 264 acres, increase eelgrass habitat by 8.7 acres, and create up to 11 acres and 12,500 linear feet of suitable habitat for tidewater gobies. Table 7 provides a summary of existing and projected land use and habitat types for the overall project area.

Table 7. Summary of existing and projected land use and habitat types for the overall project area.

Land Use/Habitat Types	Existing Acreage in the Overall Area	Projected Acreage in the Overall Area	Projected Change (Creation Ratio)[1]
Estuarine Marsh Wetlands	36	338[2]	+302 (9:1)
Aquatic & Mudflat	11	35	+24 (3:1)
Riparian	97	128[3]	+31 (1.3:1)
Freshwater Marsh & Channel Wetlands	1	22	+22 (22:1)
Seasonal Freshwater Wetlands	24	10	-14 (--)
Agricultural/Grasslands/Levees	598	262	-337 (--)
Scrub-Shrub	9	0	-9 (--)
Ruderal	23	0	-23 (--)
Developed	9	<1	-8 (--)
Sediment Management Areas	13	13	+13 (13:1)
New permanent access road or improved bridge crossing	0	<1	+<1 (--)
TOTALS	**808**	**808**	

[1] Creation ratio is the ratio of total projected acreage to total existing acreage.

[2] Includes 12 acres of proposed "high marsh ecotone wetlands."

[3] Additional riparian habitat not calculated here is expected to develop on the active bench due to natural recruitment.

(5) PROPOSED LONG-TERM MAINTENANCE AND ADAPTIVE MANAGEMENT

The applicant asserts that given the watershed-level scale of the Salt River Ecosystem Restoration Project, the variety of habitats and hydrologic conditions, the high initial disturbance to the ecosystem, interactions with agricultural land uses, and the typical level of uncertainty associated with the evolution of ecosystem restoration projects, the proposed project will benefit from an adaptive management program. The applicant has submitted an Adaptive Management Plan (Exhibit No. 20), which describes the organizational structure for the AMP process and identifies the initial monitoring activities proposed to evaluate the project progress towards meeting the project's proposed goals and objectives. The AMP establishes the triggers, or thresholds, that would initiate a management response and describes a range of potential adaptive management actions that may be undertaken in the future as needed.

The two key elements of the proposed AMP are (1) a description of the organizational structure for the Adaptive Management Participants (i.e., the decision making/funding acquisition team, project management/coordination team, and advisory team, which

includes the Commission); and (2) the conceptual model of the adaptive management process itself (e.g., if monitoring results indicate that a particular management trigger is activated, then the AMP calls for either continued monitoring and data collection, taking a specified remedial action, or, after meeting and conferring with the adaptive management participants, modifying the particular goals for that management element). For example, if the proposed monitoring (using methods specified in the AMP for each management element) for erosion and sediment deposition were to indicate a risk to the stability of public infrastructure, channel blockage conditions, or other "management triggers," remedial action would be triggered. Remedial action may include a number of identified "potential management actions" for that particular management element category, such as implementation of site-specific BMPs as needed to reduce the erosion hazard while maintaining channel function and riparian habitat value.

The proposed AMP process would evaluate progress toward individual goals and objectives and permitting requirements. Four general categories of "management elements" would be monitored: (1) erosion, sediment deposition, and geomorphic condition monitoring and adaptive management for the Salt River channel corridor; (2) erosion, sediment deposition, and geomorphic condition monitoring and adaptive management for Riverside Ranch; (3) water quality monitoring and adaptive management for both the Salt River channel corridor and for Riverside Ranch; and (4) habitat development, vegetation and invasive species monitoring, and adaptive management for both the Salt River channel corridor and for Riverside Ranch. For each general category, the AMP identifies various management elements, each with specifications for individual objectives, monitoring methods, monitoring frequency, management triggers, and potential management actions. The September 7, 2011 Table A-1 supplement to the AMP (see last pages of Exhibit No. 20) further refines future development that is proposed to be undertaken if necessary (if triggered) under this coastal development permit authorization. No definitive time period for the life of the AMP is proposed, though there are references to monitoring frequencies of ten years for certain management elements.

(6) PROPOSED "BMPS" AND MITIGATION MEASURES

The applicant is proposing to implement a suite of "Best Management Practices" (BMPs) and mitigation measures to avoid, minimize, or compensate for the project's potential impacts on hydrology, water quality, environmentally sensitive habitat areas, special-status species, archaeological resources, and other coastal resources. The various proposed measures are included in the following documents: (1) the proposed Mitigation Monitoring and Reporting Program developed for the Final Environmental Impact Report (Exhibit No. 15); (2) tidewater goby conservation measures included in the goby Biological Assessment (BA) prepared for the Fish & Wildlife Service Endangered Species Act (ESA) formal consultation (Exhibit No. 16); (3) salmonid and other species and habitat protection measures included in the BA prepared for the NOAA-Fisheries ESA consultation (Exhibit No. 16); (4) avoidance measures proposed to minimize and fully mitigate impacts to willow flycatcher, western yellow-billed cuckoo, and long-fin smelt prepared for the California ESA consultation with DFG (Exhibit No. 16); (5) measures outlined in the rare plant mitigation and monitoring plan (Exhibit No. 19) to minimize and mitigate impacts to

Humboldt Bay owl's-clover, Lyngbye's sedge, Point Reyes bird's-beak, and eelgrass in the project area; and (6) construction responsibilities related to erosion control, traffic mitigation, earthwork, debris disposal, etc. noted in the Phase 1 75% plans and the Phase 2 50% plans (Exhibit Nos. 9-10). The multitude of proposed measures includes, but is not limited to, the following:

- Restricting in-channel construction and maintenance activities to the non-rainy season beginning no earlier than June 15;
- Clearly delineating the limits of grading and construction work with protective fencing where needed to protect existing native vegetation and sensitive habitats;
- Preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP) to in part address erosion and runoff control during construction;
- Implementing dewatering restrictions and various other water quality and fish protection measures;
- Performing authorized riparian vegetation removal for site preparation purposes outside of the willow flycatcher, western yellow-billed cuckoo, and other bird species breeding and nesting seasons (Phase 1 vegetation removal is proposed to occur in the fall of 2011 and Phase 2 vegetation removal is proposed to occur in the summer to fall of 2012);
- Conducting pre-construction surveys for available cavity-nesting sites in the riparian vegetation slated for removal and if necessary erecting nest boxes in the area to ensure adequate habitat availability for cavity-nesting birds (such as purple martin);
- Implementing the mitigation measures recommended in the Cultural Resources Investigation report in the event of inadvertent discovery of archaeological resources during construction;
- Avoiding and minimizing disturbance to rare and sensitive plant populations to the maximum extent feasible while also collecting seed from known populations for proposed active replanting/reintroduction in proposed restoration areas;
- Implementing the proposed Habitat Mitigation and Monitoring Plan (Exhibit No. 17) to ensure that the proposed target restoration and mitigation habitats develop as proposed;
- Implementing the proposed Adaptive Management Plan (Exhibit No. 20) to monitor the project area post-construction for various factors and functions including erosion, sediment control, water quality, habitat development, vegetation maintenance, and more;
- Controlling undesirable, nonnative species that may colonize the restoration areas and degrade their habitat values;
- Stockpiling native topsoil separately for reuse as the top layer in areas proposed to be backfilled and restored to pre-project conditions;

- Providing pre-construction training for all on-site contractors by a qualified biologist to educate personnel on the biological restrictions and sensitivity of habitats in and adjacent to the construction area; and
- Removing the nonnative invasive plant dense-flowered cordgrass from the Salt River channel and adjacent areas prior to commencement of channel restoration activities.

C. RESTORATION OF MARINE RESOURCES AND THE BIOLOGICAL PRODUCTIVITY OF COASTAL WETLANDS

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

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

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.* [Emphasis added.]

As cited above, Coastal Act Sections 30230 and 30231 require, in part, that marine resources and coastal wetlands and waters be maintained, enhanced, and where feasible restored. These policies specifically call for the maintenance of the biological productivity and quality of marine resources, coastal waters, streams, wetlands, and estuaries necessary to maintain optimum populations of all species of marine organisms and for the protection of human health.

(1) RESTORATION ASPECTS OF THE PROPOSED PROJECT

The majority of the proposed excavation and filling of wetlands in the overall project area will be for "restoration purposes." Neither the Coastal Act nor the Commission's administrative regulations contain a precise definition of "restoration." The dictionary defines "restoration" in terms of actions that result in returning an article "back to a former position or condition," especially to "an unimpaired or improved condition."[2] The particular restorative methods and outcomes vary depending upon the subject being

[2] Merriam-Webster's Collegiate Dictionary, Tenth Edition

restored. For example, the Society for Ecological Restoration defines "ecological restoration" as "the process of intentionally altering a site to establish a defined indigenous, historical ecosystem. The goal of the process is to emulate the structure, function, diversity, and dynamics of the specified ecosystem."[3] Within the field of "wetland restoration" however, the term also applies to actions taken "in a converted or degraded natural wetland that result in the reestablishment of ecological processes, functions, and biotic/abiotic linkages and lead to a persistent, resilient system integrated within its landscape"[4] that may not necessarily result in a return to historic locations or conditions within the subject wetland area.

Implicit in all of these varying definitions and distinctions is the understanding that the restoration entails returning something to a prior state. Wetlands are extremely dynamic systems in which specific physical functions such as nutrient cycles, succession, water levels and flow patterns directly affect biological composition and productivity. Consequently "restoration," as contrasted with "enhancement," encompasses not only reestablishing certain prior conditions but also reestablishing the processes that create those conditions. In addition, most of the varying definitions of restoration imply that the reestablished conditions will persist to some degree, reflecting the homeostatic natural forces that formed and sustained the original conditions before being artificially altered or degraded. Moreover, finding that a proposed project constitutes "restoration purposes" must be based, in part, on evidence that the proposed project will be successful in improving habitat values. Should the project be unsuccessful at increasing and/or enhancing habitat values, or worse, if the proposed impacts of the project actually result in long term degradation of the habitat, the proposed activities could not be for "restoration purposes." These two characteristics (reestablishing prior conditions and processes and improving habitat values) are particularly noteworthy to restoration grant program administrators in reviewing funding requests to ensure that the return on the funding investment is maximized and liabilities associated with unwanted side effects of the project are minimized.

Thus, to ensure that a restoration project achieves its stated habitat enhancement objectives, and therefore can be recognized as being for "restoration purposes," the project must demonstrate that: (1) it either entails (a) a return to or re-establishment of former habitat conditions, or (b) entails actions taken in a converted or degraded natural wetland that will result in the reestablishment of landscape-integrated ecological processes and/or abiotic/biotic linkages associated with wetland habitats; (2) there is a reasonable likelihood that the identified improvements in habitat value and diversity will result; and (3) once re-established, it has been designed to provide the desired habitat characteristics in a self-sustaining, persistent fashion independent of the need for repeated maintenance or manipulation to uphold the habitat function.

As described in Finding IV.B, the proposed project has various components involving development in coastal wetlands and waters, the combined total of which will reestablish

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[3] "Definitions," *Society of Ecological Restoration News*, Society for Ecological Restoration; Fall, 1994

[4] *Position Paper on the Definition of Wetland Restoration*, Society of Wetland Scientists, August 6, 2000.

approximately the same configuration of estuarine and functional riverine and freshwater habitats that historically existed in the area prior to various historic land use practices related to agricultural uses of the land and chronic sedimentation from upslope uncontrollable and controllable sources. First, excavation will occur within approximately 7.5 miles of the Salt River channel and within the Francis Creek and Eastside Drainage channels both to reestablish historic channel configurations and to restore significant acreages of estuarine and freshwater aquatic habitats that have been lost over the past century. Second, dredging and filling will occur within seasonal freshwater wetlands (seasonally grazed agricultural pasturelands) on Riverside Ranch and along the river channel corridor to restore both estuarine marsh and aquatic habitats and an expanded tidal prism, which has been greatly diminished over the past century. Expanding the tidal prism of the lower Salt River is critical to allowing tidal exchange within the newly created estuarine habitats on Riverside Ranch and to promoting the conveyance of flows and sediments throughout the upstream river reach. Third, existing agricultural ditches (freshwater wetlands) will be filled for the purpose of restoring historic estuarine habitats on Riverside Ranch.

As discussed above in Finding IV.A-(3), in the 1880s, extensive salt marsh, mudflats, and riparian forest habitats were documented throughout the Eel River Delta, including the lower Salt River (Exhibit No. 4), which at that time had four anadromous freshwater tributaries, seven smaller drainages and several significant estuarine tributaries. The Salt River historically functioned as a migration corridor for adult salmonids reaching spawning habitat in tributaries within the Wildcat Mountains and provided rearing habitat for juveniles migrating downstream to the Eel River estuary. By the 1940s, much of the project area was devoid of historic vegetation due to past and ongoing farming practices in the region, and today only severely limited habitat for anadromous salmonids can be found in Francis and Russ Creek, while salmonid access to Williams and Coffee Creeks has been completely eliminated. The reduction in historic estuarine and riparian habitats is directly correlated with the increase of agricultural land in the delta. In addition, the removal of colonizing riparian vegetation by landowners in an effort to keep the river channel free from debris and sediment accumulation was routine. The proposed restoration work is expected to provide extensive benefits to marine resources such as sensitive fish and estuarine plant species, and it will increase available “critical habitat” for federal- and state-listed fish species, including coho, Chinook, steelhead, and tidewater goby. The proposed project will improve or reconnect access to approximately 15 miles of salmonid spawning habitat in Reas, Francis, and Williams Creeks, improve over 7.5 miles of habitat with multiple fish habitat features, increase the availability of necessary transition (salt/freshwater) habitat for juvenile coho and other salmonids by 264 acres, increase eelgrass habitat (which increases food sources for sensitive fish species) by 8.7 acres, and create up to 11 acres and 12,500 linear feet of suitable habitat for tidewater gobies. In past permit actions on wetland restoration projects around Humboldt Bay, the Commission has acknowledged that, in general, restoring areas that historically supported estuarine and marine riparian habitats is preferable when the physical conditions of a site present such an opportunity.

Thus, the proposed restoration of historic estuarine habitats, historic salmonid habitats, tidewater goby habitat, historic freshwater habitats, and historic connectivity between habitats at the transition between tidal and non-tidal lands entail actions taken in converted or degraded natural wetlands (diked former tidelands/agricultural wetland, and aggraded channel habitats) that will result in the reestablishment of landscape-integrated ecological processes associated with the various wetland habitats that historically existed in the area. Therefore, the Commission finds that as the proposed salmonid and tidewater goby habitat improvements, among other proposed improvements, will maintain and enhance marine resources and the biological productivity of coastal waters, the proposed improvements are mandated by the requirements of Sections 30230 and 30231.

The Commission notes that historically the area where the new setback berm is proposed to be placed on Riverside Ranch and the area beyond (inland of) the new setback berm historically consisted of tideland habitats. Restoring tidal influence to the entire project area beyond the proposed setback berm footprint would require the flooding of existing infrastructure (e.g., County roads) and private properties actively used for agricultural grazing. Therefore, while it is possible to restore over 300 acres of diked former tidelands to their historic estuarine function as proposed, it is infeasible to restore the area significantly beyond (inland of) the proposed new setback berm to its historic tidal influence.

This finding that the proposed project is truly for a restoration purpose is based in part on the assumption that the proposed project will be successful in restoring various historic habitats and processes as proposed and increasing habitat values. The specific habitat restoration goals proposed are detailed in the submitted Habitat Mitigation and Monitoring Plan (HMMP) (Exhibit Nos. 17-18) and include (1) restoring historic habitats, including tidal marsh, tidal slough, freshwater channel, Sitka spruce riparian forest, and rare plant habitat; (2) increasing habitat diversity in the area to support a wider assemblage of wildlife species; and (3) improving fish passage and significant levels of restored and currently unavailable instream habitat. Should the project be unsuccessful, or worse, if the proposed impacts of the project actually result in long-term degradation of the habitats, the proposed project would not be for "restoration purposes."

Although the measures proposed in the HMMP are appropriate, in some cases they do not go far enough, lack detail, or fail to address certain factors to ensure that the permissible development does not result in long-term degradation of the surrounding habitats and indeed achieves the objectives for which it is intended. Commission staff, including the Commission's ecologist (John Dixon), have reviewed the submitted plan and recommended various additional provisions to help ensure the success of the development in achieving its restoration objectives. These additional provisions include all of the following: (1) field documentation that the physical restoration, planting plan, and cattle exclusion fencing have been built-to-plan within three months of the completion of grading, filling, and dredging within each restoration area (both phases); (2) verification, within 180 days of completion of each phase of construction, that all wetlands, agricultural lands, and other sensitive habitats temporarily impacted by construction activities have been returned to pre-project conditions as proposed; (3) production of a map of the

Riverside Ranch tidal restoration areas with 0.5-foot elevation contours within six months following completion of all restoration grading, filling, and dredging within the tidal restoration areas; (4) continuous monitoring of water level and salinity at one location in the Eel River Estuary near the mouth of the Salt River and at two locations within the Riverside Ranch tidal restoration areas from July 1 through October 31 during the first summer following completion of restoration grading and dredging; (5) collection of spot salinity measurements in the Salt River channel within 1 hour of each higher high tide from July 1 through October 31 during the first summer following completion of creek dredging in order to create a depth profile of salinity at several locations and thereby to determine the upstream limit and approximate shape of the tidal salt water wedge; (6) quantitative monitoring of the Riverside Ranch tidal restoration area and of the riparian restoration areas; (7) inclusion of success criteria for each habitat type, including criteria for species diversity and composition; (8) implementing an eelgrass mitigation plan to adequately compensate for direct impacts to approximately 1.2 acres of eelgrass beds proposed to be impacted by restoration activities; (9) conducting tidewater goby, salmonid, and avian surveys in suitable habitats of the project restoration areas following the completion of restoration activities; (10) completion of a wetland delineation in the 5th year following completion of restoration activities; (11) periodic documentation of channel profiles of the Salt River and of tidal creeks in the Riverside Ranch tidal restoration area to determine channel stability and measure changes that may have to be addressed by adaptive management; (12) the use of native and/or non-persistent, non-invasive plants only in all proposed plantings and seed mixes to be used in the project; and (13) submittal of a reporting schedule to the Executive Director.

To ensure that the proposed dredging and filling project will achieve the objectives for which it is intended, the Commission attaches **Special Condition No. 2**. This special condition requires the applicant to submit a final revised habitat mitigation and monitoring plan for the Executive Director's review and approval that substantially conforms with the submitted plan, except that it shall be revised to include provisions for all of the above. Furthermore, Special Condition No. 2 requires that the final revised HMMP include provisions for remediation to ensure that the goals and objectives of the restoration project are met.

Therefore, the Commission concludes that as conditioned, the proposed diking, dredging, and filling of various types of wetland habitats for the restoration, maintenance, and enhancement of historic estuarine and sensitive fish habitats necessary to maintain healthy populations of marine organisms is mandated by the requirements of Sections 30230 and 30231.

(2) MAINTENANCE AND ENHANCEMENT OF MARINE HABITAT VALUES

In addition to stating that marine resources shall be maintained, enhanced, and where feasible, restored, Sections 30230 and 30231 specifically state that the biological productivity of coastal waters appropriate to maintain optimum populations of all species of marine organisms and protect to human health shall be maintained and, where feasible, restored.

As discussed in more detail in Finding IV.D below, the conditions of the permit will ensure that the project will not have significant adverse impacts on the water quality of coastal waters in the project area and that the project construction will not adversely affect the biological productivity and functional capacity of coastal waters or wetlands. Furthermore, the restoration project's stated purpose is to enhance and restore the functional capacity and biological productivity of coastal wetlands and waters, and conditions of the permit will ensure that the site is monitored for achievement of these goals. In short, the proposed restoration work will provide extensive benefits to marine resources such as sensitive fish and estuarine plant species, and it will increase available "critical habitat" for listed salmonids and tidewater goby. Without the proposed project, the existing river system would continue to function as impaired and dysfunctional, there would be no restoration of the tidal prism, no restored connectivity between tidal and non-tidal lands, and no restored hydrologic connectivity between Williams Creek and the Salt River – all of which are essential components of a healthy riverine and estuarine environment capable of supporting marine resources such as coho and other salmonid species. Furthermore, the biological productivity of the coastal waters would not be maintained or improved, including habitat value for a diversity of sensitive species and habitats associated with the intertidal environment.

Therefore, the Commission finds that the project, as conditioned, will maintain and enhance the functional capacity of the habitat, maintain and restore optimum populations of marine organisms, and protect human health as mandated by the requirements of Sections 30230 and 30231 of the Coastal Act.

D. PERMISSIBLE DIKING, DREDGING, & FILLING OF COASTAL WETLANDS & WATERS

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

> *(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*
>
> *(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
>
> *(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
>
> *(3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.*
>
> *(4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*

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

(6) Restoration purposes.

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

…

(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary… [Emphasis added.]

…

As discussed in Finding IV.B (Project Description) above, the proposed project will involve diking, dredging, and filling of wetland habitat. Wetland dredging and/or filling impacts will occur extensively across the ~808-acre overall project area, including impacts to estuarine marsh, estuarine aquatic, riparian, freshwater aquatic, and seasonal freshwater wetland habitats (e.g., the many acres of agricultural grasslands in the area that also function as seasonal wetlands or "transitional agricultural lands" as discussed in Finding IV.A-(3) above). Diking will occur in the form of temporary coffer dams constructed in the main river and creek channels to separate construction areas from wetted channel habitat. Tables 1 through 7 above and Table 8 below summarize the wetland dredge and fill impacts.

Table 8. Proposed dredge and fill impacts[1] to coastal wetlands[2] (both phases). The overall project area footprint is ~808 acres.

Existing Wetlands in the ~808-acre Overall Project Area	Overall Dredging Acreages/Amounts	Overall Filling Acreages/Amounts	Projected Wetlands in the Overall Project Area
~756 acres	~63.7 acres[3] (~153,150 cubic yards)[4]	52 acres[5] (~337,450 cubic yards)[5]	~757.2 acres[6]

[1] This table shows permanent fill only. In addition, there will be ~3,100 cubic yards of fill placed temporarily for construction purposes (i.e., temporary construction access and coffer dams). An additional up to 535 acres of upland and wetland areas outside of the project area footprint will be temporarily disturbed for construction access and material hauling. All temporarily disturbed areas are proposed to be decompacted and restored back to pre-construction conditions.

[2] As delineated in the *Uplands Delineation for Salt River Restoration Project, Ferndale, CA* (Army Corps of Engineers, HCRCD, and W&K, revised version April 2011).

[3] Proposed dredging in coastal wetlands will occur on Riverside Ranch for "restoration purposes."

[4] All excavated sediments dredged on Riverside Ranch will be used on site for restoration purposes.

[5] Proposed fill in coastal wetlands and waters will be used almost entirely for estuarine habitat "restoration purposes" (as discussed in more detail below) on Riverside Ranch (approximately 336,500 cubic yards). Approximately 50 cubic yards of fill in Francis Creek will be used for incidental public service purposes resulting from the replacement of the failed culvert on Francis Creek at Port Kenyon Road with a new bridge (bottomless arched culvert) spanning the top width of the restored creek channel.

[6] The proposed project will result in a net gain of approximately 1.3 acres of wetland habitats due to delineated uplands in the project area that are proposed to be converted to restored wetland habitats according to the proposed plans (i.e., ~1.25 miles of existing upland access road on Riverside Ranch, an existing concrete slab and developed dairy facilities near the property entrance, and the lowering of existing upland elevations and levees in the project area).

The diking, filling, and dredging of existing seasonal wetlands proposed on Riverside Ranch for the purpose of restoring the internal tidal slough networks and estuarine marsh plain habitats and the new outboard ditch freshwater wetland habitat is reviewed for consistency with the requirements of Section 30233 below. Similarly, the dredging and placement of 50 cubic yards of fill associated with the proposed replacement of a failed culvert on Francis Creek is also reviewed for consistency with the requirements of Section 30233 below. The development proposed to the Salt River and portions of Francis Creek, the Eastside Drainage channel, and other tributary streams that includes (a) the excavation of over 600,000 cubic yards of material from river and stream channels, (b) the restoration of an active channel, the creation of a variable width bench adjacent to the active channel, and the creation of as sediment management areas, and (c) the restoration of riparian forest cover along the outer edges of the active benches constitutes "substantial alteration" of rivers and streams that must be found consistent with the more specific provisions of Section 30236 of the Coastal Act (see Finding IV.E below).

Section 30233 sets forth a number of different limitations on what types of projects may be allowed in coastal wetlands. For analysis purposes, the limitations applicable to the subject project can be grouped into four general categories or tests. These tests require that projects that entail the dredging, diking, or filling of wetlands demonstrate that:

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

b. That the project has no feasible less environmentally damaging alternative;

c. That feasible mitigation measures have been provided to minimize adverse environmental effects; and

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

Each category is discussed separately below.

(1) ALLOWABLE USE FOR DREDGING AND FILLING OF COASTAL WATERS

The first test set forth above is that any proposed filling, diking, or dredging in wetlands must be for an allowable purpose as specified under Section 30233 of the Coastal Act. As described in Finding IV.B and shown in the above tables (and as described in more detail below), the proposed diking and dredging activities are proposed to occur in existing seasonal wetland habitats for the purpose of restoring the internal tidal slough network and estuarine marsh plain habitats and the new outboard ditch freshwater wetland habitat on Riverside Ranch. Likewise, the proposed filling on Riverside Ranch will be used almost entirely for restoration purposes to create both estuarine habitat, except for approximately 50 cubic yards of fill associated with the proposed replacement of a failed culvert on Francis Creek. As discussed below, the two relevant categories of use for diking, dredging, and filling listed under Section 30233(a) that relate to the proposed project are subcategory (6) "restoration purposes" and subcategory (4) "incidental public service purposes."

i. DREDGING & FILLING FOR "RESTORATION PURPOSES"

As described in Findings IV.B and IV.C and in Table 8 above, the proposed project has various components of proposed diking, dredging, and filling in coastal wetlands, the combined total of which will reestablish approximately the same configuration of estuarine and functional riverine and freshwater habitats that historically existed in the area prior to various historic land use practices related to agricultural uses of the land and chronic sedimentation from upslope uncontrollable and controllable sources. The proposed restoration work is expected to provide extensive benefits to marine resources such as sensitive fish and estuarine plant species, and it will specifically provide needed critical habitat for listed salmonids and tidewater goby. Thus, as previously discussed in Finding IV.C, the proposed restoration of historic habitats entails actions taken in converted or degraded natural wetlands that will result in the reestablishment of landscape-integrated ecological processes associated with the various wetland habitats that historically existed in the area. Therefore, the Commission finds that the proposed restoration is consistent with the definition of restoration and constitutes filling and dredging for restoration purposes consistent with Section 30233(a)(6).

This finding that the proposed project constitutes "restoration purposes" is based in part on the assumption that the proposed project will be successful in restoring various historic habitats and processes as proposed and increasing habitat values. The specific habitat restoration goals are detailed in the submitted Habitat Mitigation and Monitoring Plan (Exhibit No. 17). As explained above, Commission staff, including the Commission's ecologist, has determined that various revisions to the HMMP are necessary to ensure the development will achieve the objectives for which it is intended and thus constitute filling, diking, and dredging for restoration purposes. **Special Condition No. 2**, as previously discussed, requires the applicant to submit a final revised habitat mitigation and monitoring plan for the Executive Director's review and approval that substantially conforms with the submitted plan, except that it shall be revised to include varous provisions discussed in Finding IV.C above.

Therefore, the Commission concludes that as conditioned, the proposed diking, dredging, and filling of various types of wetland habitats for the restoration and enhancement of historic estuarine and sensitive fish habitats is permissible under Section 30233(a)(6) for "restoration purposes."

ii. DREDGING & FILLING FOR "INCIDENTAL PUBLIC SERVICES PURPOSES"

A small portion of the proposed excavation and filling of wetlands (~50 cubic yards of concrete filling) in the overall project area will be for "incidental public services purposes." To determine what constitutes an incidental public service purpose, the Commission must first determine that the proposed diking, dredging, and/or filling is for a public service purpose. The project component that relates to this purpose is the proposed replacement of the existing failed 7-ft-wide by-10-ft-long reinforced concrete box culvert over Francis Creek at Port Kenyon Road with a new free-span, pre-fabricated 32-ft-wide by 42-ft-long arch culvert that would span the top width of the restored creek channel (see

Exhibit No. 11). This creek crossing is located within the County of Humboldt's road right-of-way easement, and the proposed crossing replacement would be undertaken by a public agency. Therefore, the Commission finds that the fill for the proposed excavation and filling related to this crossing upgrade is for a public service purpose consistent with Section 30233(a)(4).

The Commission must next determine if the proposed diking, dredging, and/or filling is for an "incidental" public service purpose. The proposed replacement crossing will permanently impact approximately one tenth of an acre of creek channel habitat (though creek channel habitat currently filled by the existing box culvert will be restored along with the creek channel restoration proposed under Phase 2). The purpose of the crossing replacement is to accommodate the restored, widened channel, to improve public safety along this otherwise narrow roadway for motor vehicles, pedestrians, and bicyclists, and to have the crossing upgrade conform to current County standards. The existing substandard culvert crossing was installed decades ago and routinely plugs with sediment. In 2010, the Commission authorized Emergency Permit No. 1-10-035-G in part to allow for the emergency removal of a sediment plug at the road/creek crossing. The substandard road crossing conditions lead to sediment buildup in the channel, which in turn leads to flooding of the roadway and surrounding areas during heavy rains and hazardous driving conditions or necessary road closure. Thus, the Commission finds that the excavation and filling of the Francis Creek channel for the replacement arch culvert to accommodate the restored creek channel habitat and improve the existing road for public safety purposes is incidental to the road's primary transportation purpose and is allowable as an incidental public service purpose pursuant to Section 30233(a)(4) of the Coastal Act.

(2) ALTERNATIVES

The second test set forth by the Commission's diking/dredging/filling policies is that the proposed diking/dredging/filling project must have no feasible less environmentally damaging alternative. In this case, the Commission has considered alternatives and determines that there are no feasible less environmentally damaging alternatives to the project as conditioned. Alternatives that have been identified include: (1) the "no project" alternative (with respect to both no restoration and no Francis Creek culvert replacement); (2) partial restoration (Phase 1 only); and (3) partial restoration (Phase 2 only).

i. "NO PROJECT" ALTERNATIVE

The "no project" alternative would maintain the *status quo* of the lower Salt River ecosystem in its current degraded, dysfunctional condition with no comprehensive restorative actions to improve and restore its hydraulic and ecosystem functions. Although the "no project" alternative would avoid the short-term impacts related to hydrology, water quality, and biological resources associated with the proposed project, such non-action would fail to maintain and enhance marine resources and the biological productivity of coastal waters necessary to maintain healthy populations of marine organisms, as is mandated by the requirements of Coastal Act Sections 30230 and 30231. The "no project" alternative would not address the issues of the continued degradation of marine resources,

water quality, agricultural productivity, and flood hazard mitigation. With respect to the proposed new arch culvert at Francis Creek and Port Kenyon Road, the "no project" alternative would leave this particular roadway crossing with an existing substandard culvert inadequately sized to accommodate the restored channel conditions. In addition, the substandard road crossing conditions lead to sediment buildup in the channel, which in turn leads to flooding of the roadway and surrounding areas during heavy rains and hazardous driving conditions or necessary road closure. Therefore, the no project alternative is not a feasible less environmentally damaging alternative to the proposed project as conditioned.

ii. PARTIAL RESTORATION (PHASE 1 ONLY)

This alternative would implement Phase 1 (Riverside Ranch restoration) of the project only, with no restoration of an additional five miles of the Salt River channel from Reas Creek to Perry Slough. Without these Phase 2 restoration activities, water quality in the main channel reach would continue to degrade, no channel habitat and fish passage improvements would be made to over 5 miles of riverine habitats, salmonid habitat would continue to be degraded and unavailable in ~15 acres of tributary habitats, and chronic flooding of surrounding agricultural lands would continue. Although this alternative would provide substantial estuarine restoration benefits, it would still result in substantial excavation and filling impacts that would result in only some of the channel improvements necessary to maintain and enhance marine resources consistent with the requirements of Sections 30230 and 30231 of the Coastal Act. Therefore, this partial restoration alternative is not a feasible less environmentally damaging alternative to the proposed project as conditioned.

iii. PARTIAL RESTORATION (PHASE 2 ONLY)

This alternative would implement Phase 2 (Salt River channel corridor restoration) of the project only, with no restoration of Riverside Ranch or the lower 2.5 miles of the Salt River channel. Without these Phase 1 restoration activities, the tidal prism would not be expanded and restored, the river system would continue to be unable to functionally convey sediments and flows, and chronic flooding and degradation of prime agricultural lands in the surrounding area would continue. Under this alternative, there would be no restoration of 264 acres of transition habitat for juvenile coho, no restoration of 8.7 acres of important (for coho and other marine organisms) eelgrass habitat, and no restoration of 11 acres and 12,500 linear feet of suitable tidewater goby habitat. This alternative would provide some channel habitat and fish passage improvements, but it still would result in substantial excavation and filling impacts, and the project benefits would unlikely be self-sustaining and persistent without repeated maintenance to uphold habitat function. This alternative would fail to maintain and enhance marine resources and the biological productivity of coastal waters necessary to maintain healthy populations of marine organisms, as is mandated by the requirements of Coastal Act Sections 30230 and 30231. Therefore, this partial restoration alternative is not a feasible less environmentally damaging alternative to the proposed project as conditioned.

Conclusion:

Based on the above analysis, the Commission concludes that there are no feasible less environmentally damaging alternatives to the proposed project as conditioned.

(3) FEASIBLE MITIGATION MEASURES

The third test set forth by the above-cited policies is whether feasible mitigation measures have been provided to minimize adverse environmental effects. The proposed diking, dredging, and/or filling of coastal wetlands and waters has the potential to cause a number of adverse impacts to coastal resources including (i) water quality impacts; (ii) impacts to sensitive fish and other aquatic resources in the project area; (iii) impacts to sensitive plants in the project area; (iv) impacts to coastal wetlands from excavated sediment disposal on agricultural lands; and (v) impacts associated with future maintenance activities. The potential adverse impacts and their mitigations are discussed in the following sections.

i. WATER QUALITY IMPACTS

Although there is existing chronic water quality problems in the project area related to sedimentation, agricultural runoff, and wastewater treatment plant discharge, widespread earth-moving activities across large construction areas (~472 acres in Phase 1 and ~336 acres in Phase 2) pose the risk of acute water quality impacts to coastal waters and wetlands during construction activities. The applicant proposes certain mitigation measures that would be implemented during construction to minimize water quality impacts, including: restricting in-channel construction and maintenance activities to the non-rainy season beginning no earlier than June 15; preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP) to address erosion and runoff control during construction; implementing various erosion, sediment, pollution, and waste control measures as detailed in the preliminary project plans; and implementing dewatering restrictions and various other water quality protection measures.

To ensure that the applicant implements the proposed measures and BMPs to protect water quality, the Commission attaches Special Condition Nos. 3 through 6. **Special Condition No. 3** imposes various construction responsibilities that must be adhered to during construction including, but not limited to, the following: (a) during construction, all trash shall be properly contained, removed from the work site, and disposed of on a regular basis to avoid contamination of habitat during construction activities; (b) out-of-channel grading, excavation, and other earth-moving activities shall be conducted during the dry season period of June 1 through October 15 only, with limited allowances for earth-moving activities during the broader dry season period of April 15 through November 30; (c) in-channel construction and maintenance activities shall be limited to the dry season period of June 1 through November 30 only; (d) excess ground water shall be pumped into upland areas on surrounding fields to prevent sediment-laden water from entering coastal waters or wetlands; (e) in-stream erosion and turbidity control measures shall be implemented during channel dredging activities; (f) any fueling and maintenance of construction

equipment shall occur within upland areas outside of environmentally sensitive habitat areas or within designated staging areas; mechanized heavy equipment and other vehicles used during construction shall not be refueled or washed within 100 feet of coastal waters; (g) fuels, lubricants, and solvents shall not be allowed to enter the coastal waters or wetlands; and (h) upon completion of construction activities and prior to the onset of the rainy season, all bare soil areas shall be seeded and mulched with weed-free rice straw. **Special Condition No. 4** requires submittal of a final SWPPP for the Executive Director's review and approval. The SWPPP must demonstrate that (a) runoff from the project site shall not increase sedimentation in coastal waters or wetlands during construction or post-construction; (b) runoff from the project site shall not result in pollutants entering coastal waters or wetlands during construction or post-construction; (c) BMPs shall be used to prevent the entry of polluted stormwater runoff into coastal waters and wetlands during construction and post-construction; (d) an on-site spill prevention and control response program shall be implemented to capture and clean-up any accidental releases of oil, grease, fuels, lubricants, or other hazardous materials from entering coastal waters or wetlands; and (e) the SWPPP shall be consistent with the provisions of all other terms and conditions of Coastal Development Permit No. 1-10-032. **Special Condition No. 5** requires submittal of final construction plans, including final Phase 1 plans, Phase 2 plans, and Francis Creek culvert replacement plans, prior to commencement of each phase of construction for the Executive Director's review and approval. The plans shall substantially conform to the proposed plans submitted with the application (Exhibit Nos. 9-10) and also shall be consistent with all special conditions of this CDP. Finally, **Special Condition No. 6** requires submittal of final debris disposal plans prior to issuance of the CDP (for Phase 1 debris disposal) and prior to commencement of Phase 2 development (for Phase 2 debris disposal) for the Executive Director's review and approval. The plans are required to demonstrate that (a) all temporary stockpiles of construction debris, excess sediments, vegetative spoils, and any other debris and waste associated with the authorized work shall be minimized and limited to areas within the proposed project footprint as depicted on the final approved construction plans required by Special Condition No. 5 and where they can feasibly be contained with appropriate BMPs to prevent any discharge of contaminants to coastal waters and wetlands; (b) all construction debris, excess sediments, vegetative spoils, and any other debris and waste expected to be generated by the authorized work shall be disposed of at an authorized disposal site(s) capable of receiving such materials; and (c) side casting or placement of any such material within coastal waters and wetlands is prohibited.

The special conditions discussed above will minimize adverse impacts to water quality while not conflicting with any determinations by the State Water Resources Control Board or any California Regional Water Quality Control Board in matters relating to water quality as required by Section 30412 of the Coastal Act.

ii. IMPACTS TO SENSITIVE FISH AND OTHER AQUATIC RESOURCES IN THE PROJECT AREA

Construction activities will occur within an aquatic environment that supports habitat for sensitive fish species. Tidewater gobies, salmonids, and other sensitive fish are known to

occur in the project area and may be impacted by construction activities. The applicant has proposed, in the two biological assessments (BAs) prepared for the project (see Substantive File Documents, pages 2-3, and excerpts attached as Exhibit No. 16), various measures to avoid, minimize, and compensate for impacts to sensitive fish and other aquatic organisms. These include many of the construction standards/restrictions and water quality protection measures cited above and included in Special Condition Nos. 3 through 6. The applicant also proposes relocation measures to further minimize impacts to sensitive fish and other aquatic organisms. Specifically, coffer dams will be erected prior to any dewatering activities in any creeks or channels, and a qualified biologist will relocate all native aquatic vertebrates and "larger invertebrates" out of the construction area into a flowing channel segment. Relocation of aquatic organisms is proposed to be performed in consultation with staff from NOAA-Fisheries, DFG, and Fish & Wildlife Service. Fish screens will be installed upstream of coffer dams to prevent aquatic organisms from transfer into the bypass pipe proposed to be used to divert flowing water around the isolated work area (a Dewatering and Creek Diversion Plan is proposed to be prepared by the contractor). A qualified biologist then would appropriately use seining, dip nets, electrofishing, or other trapping procedures to transfer aquatic organisms out of the work area. Additional measures proposed for tidewater goby (in the FEIR, Mitigation 3.4.1-1.10, and in the BA) include conducting goby surveys in May prior to commencement of construction and collecting tissue samples for genetic analysis, avoiding existing tidewater goby habitat at "Site #6" (north of and adjacent to Riverside Ranch), and relocating captured gobies to specific areas (e.g., Connick Ranch, "Site #6", and retained habitats on Riverside Ranch).

To ensure that appropriate mitigation measures are implemented to minimize impacts to sensitive fish and other aquatic organisms, the Commission attaches **Special Condition No. 7**. This condition requires the applicant to undertake development in accordance with the fish and aquatic resources protection measures and protocols detailed above and included in the February 2011 Final Environmental Impact Report (Mitigation Monitoring and Reporting Program) and the two Biological Assessments (May 25, 2011 and June 2011) prepared for the project (Exhibit Nos. 15-16). Protection measures include, but are not necessarily limited to, the following: (a) coffer dams shall be erected prior to dewatering; (b) channels shall be dewatered prior to excavation under the supervision of a qualified aquatic biologist; (c) fish screens shall be installed upstream of coffer dams to prevent aquatic organisms from transfer into bypass piping; (d) a qualified biologist shall appropriately use seining, dip nets, electrofishing, or other trapping procedures to transfer aquatic organisms out of the work area; (e) any captured Sacramento pikeminnow shall be euthanized rather than relocated; (f) coffer dam construction, channel dewatering, and relocation of aquatic organisms shall be performed in consultation with staff from NOAA-Fisheries, DFG, and Fish & Wildlife Service; (g) the various avoidance and minimization measures for tidewater goby shall be implemented as proposed in the May 25, 2011 Biological Assessment; and (h) the various water quality protection measures required by Special Condition Nos. 3, 4, and 6 shall be implemented.

If Sacramento pikeminnow individuals are encountered during fish trapping and relocation, the nonnative fish is proposed to be documented and euthanized. Sacramento pikeminnow

(*Ptychocheilus grandis*) is a relatively large piscivorous (fish-eating) fish native to the Sacramento-San Joaquin river systems and other coastal drainages in California. The species is not native to the Salt River, but it was introduced into the Eel River approximately 30 years ago. It has since become widespread in the Eel River, and an abundance of juvenile pikeminnow has been documented in the Salt River. According to the BA, larger pikeminnow are believed to prey on juvenile salmonids including coho, and the highly mobile nonnative fish may out-compete native fish in overlapping habitats. The pikeminnow has a low tolerance to saline conditions and therefore is not expected to thrive in the restored estuarine habitats. Larger fish could, however, colonize restored habitat areas upstream of tidal influence, and smaller fish could persist throughout the restored aquatic habitats. In addition to euthanizing any pikeminnow caught during fish relocation activities, the applicant proposes (in the BA) to conduct annual monitoring for pikeminnow for at least five years following completion of restoration activities. Populations levels, habitat preferences, dietary preferences, movement patterns, and other factors would be monitored to determine if adult pikeminnow capable of piscivory are present and/or dominant in the restored project area, if their presence is harmful to native species, and whether practicable measures could be undertaken to control the pikeminnow population while native species are recolonizing the newly created habitat areas. Complete eradication of pikeminnow from the area is considered infeasible, but control of the species in combination with the restoration of native fish habitat features is critical to ensuring that coho and other salmonids will successfully colonize the restored aquatic habitat. As discussed above in Finding IV.B-(3), the project incorporates various "multi-function habitat elements" into the restored channel design for salmonid habitat purposes, such as large woody debris, backwater slough alcoves, and other features designed to create pools, cover, and areas suitable for macro-invertebrates and refugia for fish (see Phase 2 50% design plans, Exhibit No. 10). The project also will restore 264 acres of transition habitat critical for juvenile coho (and other salmonid) rearing.

To ensure that the final construction plans include the various fish habitat features proposed in the preliminary plans, the Commission attaches **Special Condition No. 5(B)**, which requires submittal of final Phase 2 construction plans for the Executive Director's review and approval that substantially conform with the 50% plans (which include the various proposed fish habitat features throughout the channel restoration areas). To ensure that a pikeminnow monitoring and control program is implemented as proposed to increase the restoration success for coho and other native fish, the Commission attaches **Special Condition No. 8**. This condition requires that the permittee undertake monitoring and control of Sacramento pikeminnow in the project area as proposed in the June 2011 Biological Assessment prepared for the project including, but not necessarily limited to, conducting annual monitoring for and documentation of pikeminnow for at least five years to assess presence/absence, population estimates, habitat preferences, dietary preferences, movement patterns, and other factors. Annual reports shall be submitted to the Executive Director by December 31 of each year. In the event that adult pikeminnow greater than 10 inches in size become dominant in the project area, a control program shall be implemented as proposed in the BA. The pikeminnow control program shall require an amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

iii. IMPACTS TO SENSITIVE PLANTS IN THE PROJECT AREA

Three sensitive plant species were documented growing in tidal habitats in the project area during 2010 surveys. Lyngbye's sedge (*Carex lyngbyei*) occurs in a continuous, 3-to-15-foot-wide band of brackish marsh habitat along both channel banks of the Salt River for a span of nearly two river miles from the lowest-most reach of the project area to as far upstream as Port Kenyon Road. In addition, three locations of Humboldt Bay owl's-clover (*Castilleja ambigua* ssp. *humboldtiensis*) totaling 58 individuals were mapped in salt marsh patches in the area that laced a dominance of invasive dense-flowered cordgrass, including at least 10 individual plants within the project area footprint. Both plants are listed by the California Native Plant Society and the DFG as "rare, threatened, and endangered in California" (CNPS List 2.2 and 1B.2 respectively).[5] Finally, an estimated 1.2 acres of eelgrass (*Zostera marina*) is present in the area growing as a 3-ft to 4-ft-wide continuous band on either side of the channel along the lower 7,500 feet of the Salt River. Eelgrass is not a rare species, but eelgrass beds are considered environmentally sensitive due to their important fish habitat functions. Eelgrass is a marine plant that grows in clear, well-lit, shallow coastal waters and provides shelter and spawning habitat for fish and invertebrates. It is widely recognized as one of the most productive and valuable habitats in shallow marine environments. The 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act set forth Essential Fish Habitat (EFH) provisions to identify and protect important habitats of federally managed marine and anadromous fish species. Eelgrass beds are considered a Special Aquatic Site by the U.S. Army Corps of Engineers, DFG, the Fish & Wildlife Service, and NOAA-Fisheries. Eelgrass habitat is regulated under Section 404 of the Clean Water Act and is considered EFH by NOAA-Fisheries.

The proposed project will directly impact portions of the populations of each of the three sensitive plant species in the project area, though additional portions of each population are not expected to be directly impacted during construction (as shown in Phase 1 75% design plans, Exhibit No. 9), and the project will restore significant acreages of suitable habitat for each of the species. To mitigate for rare plant impacts and to protect rare plant habitat adjacent to the project area, the applicant has proposed various measures in the Final EIR and in a proposed Rare Plant Mitigation & Monitoring Plan dated January 27, 2011. These measures include conducting pre-construction surveys (Phase 1 pre-construction surveys were conducted in 2010; Phase 2 surveys haven't been completed yet); flagging identified locations of special-status species for avoidance if feasible; and compensating for unavoidable impacts to special-status plants through the preparation of a compensatory mitigation plan in coordination with Fish & Wildlife Service and DFG. The rare plant mitigation and monitoring plan (prepared by H.T. Harvey & Associates dated January 27, 2011) includes a "Conservation and Reintroduction Plan" element with species-specific

[5] California Native Plant Society (CNPS). 2011. *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; **LIST 4** = Uncommon in California; **0.2** = fairly endangered in California.

strategies for avoiding, minimizing, and compensating for impacts to Humboldt Bay owl's-clover, Lyngbye's sedge, Point Reyes bird's beak (not yet documented in the project area but expected to occur in salt marsh habitats), and eelgrass (Exhibit No. 19). Proposed measures include (but are not limited to) fencing plants for avoidance (where feasible) during construction, minimizing disturbance to the maximum extent feasible, and collecting seed from known populations for introduction into appropriate restored habitat areas. The plan does not propose to salvage and replant rare plants slated for construction impacts due to the potential for introducing the highly invasive dense-flowered cordgrass (*Spartina densiflora*) into the restored tidal marsh area.

Although the protocols proposed in the rare plant mitigation and monitoring plan are generally appropriate, in some cases they do not go far enough or lack sufficient detail to ensure that feasible mitigation measures are provided to minimize adverse rare plant impacts. For example, the eelgrass strategy outlined in the plan proposes to monitor natural recruitment of eelgrass in the restored mudflat habitats for three years, with active replanting to occur after that period if eelgrass does not establish. However, the strategy does not provide (or include provisions for preparing) a detailed plan for surveying, assessing impacts, monitoring, or remediating eelgrass habitat to ensure that sufficient eelgrass will be restored to compensate for the proposed impacts to 1.2 acres of eelgrass habitat. The Commission's ecologist (John Dixon) and DFG staff have reviewed the submitted plan and recommended various additions. Therefore, **Special Condition No. 11** requires the applicant to submit a final revised rare plant mitigation and monitoring plan for the Executive Director's review and approval that substantially conforms with the submitted plan, except that it shall be revised to include provisions for eelgrass mitigation and monitoring, including: (1) pre- and post-construction surveys completed during the months of May through August; (2) five years of monitoring if post-construction surveys indicate any decrease in eelgrass density or cover; (3) assurance that the entire pre-construction eelgrass area plus the restored areas suitable for eelgrass recruitment shall have an extent of vegetative cover equal to 1.2 times the impacted area and have an average density equal to the pre-construction average density within three years of completion of the project; and (4) a remediation plan if the impacted eelgrass areas have not met the recovery standard in three years. The condition also requires that if the performance criteria have not been met at the end of three years following the completion of remediation, the permittee shall submit an application for an amendment to this CDP proposing additional mitigation to ensure all performance criteria are satisfied consistent with all terms and conditions of this permit. In addition, **Special Condition No. 2(11)** requires that the final revised habitat monitoring and reporting program be revised to include provisions for implementing the eelgrass mitigation and monitoring plan prepared pursuant to Special Condition No. 11.

The applicant has proposed a revegetation plan (within the Habitat Mitigation and Monitoring Plan and on the project plans, Exhibit Nos. 9-10 and 17-18), which includes a plant palette for each proposed restored habitat type and seed mixes for active bench seeding and erosion control seeding. Native, regionally appropriate and habitat appropriate species are proposed for all cases except for the erosion control seeding, which proposes a mix of nonnative species "or a mix specified by the landowner and approved by the

HCRCD." The Commission finds that rare plant and wetland habitats located within the restored areas and adjacent to the restoration site could be adversely affected if non-native, invasive plant species were to colonize or be dispersed to the areas. Introduced invasive exotic plant species could colonize environmentally sensitive habitat areas and displace native vegetation, thereby disrupting the functions and values of the adjacent sensitive areas. Thus, to ensure that rare plant habitat and other ESHA in or adjacent to the project area are not significantly degraded by any revegetation or seeding that contains invasive exotic species, the Commission attaches **Special Condition No. 12.** This condition requires that only native and/or non-persistent, non-invasive plant species be planted at the site. In addition, **Special Condition No. 2(16)** requires that the final revised habitat monitoring and reporting program be revised to include provisions for the use of native plants only in all proposed plantings and seed mixes consistent with Special Condition No. 12.

iv. IMPACTS TO COASTAL WETLANDS FROM EXCAVATED MATERIAL DISPOSAL/ SEDIMENT REUSE

The project proposes to dispose of most of the excavated sediments from the river and creek channels (up to ~425,600 cubic yards) on upland agricultural pasturelands in the surrounding area (the application also proposes to dispose of any excess materials "off-site for other beneficial reuses" if necessary). The material to be excavated from the channels consists mostly of "clean" upland soils from the tributaries in the Wildcat Hills and is viewed as a beneficial resource rather than a disposable problem. [In 2008 the Commission granted CDP Waiver No. 1-08-036-W to Humboldt County to allow for a small-scale, limited-excavation pilot test at three selected points in the river in part to examine the properties of the excavated material to determine its value for agronomic reuse]. As discussed above in Finding IV.A(3), many of the agricultural grasslands in the area, in addition to serving as agricultural land for livestock grazing, hay production, and other agricultural uses, also function as seasonal wetlands. This dual function is recognized in the County's certified LCP through the designation of much of the agricultural land in the region as "transitional agricultural wetlands" with a "T" combining zone overlay. The stated purpose of the overlay designation is "to permit agricultural use as a principal permitted use while providing that development in transitional agricultural lands is conducted in such a manner as to maintain long-term wetland habitat values and minimize short-term habitat degradation within these environmentally sensitive habitat areas" (CZR Section 313-35.1.1). Disposal of excavated sediments from the proposed restoration project on agricultural pasturelands that also function as seasonal wetlands would result in the impermissible placement of fill in wetlands for a use not specified under Coastal Act Section 30233(a).

To ensure that excavated sediments proposed for beneficial reuse on agricultural lands would not be placed in agricultural wetlands, the applicant completed upland delineations for various agricultural fields in the surrounding region (see Substantive File Documents, page 2). The Commission's ecologist (John Dixon) reviewed and verified the delineations. The delineations and subsequent calculations detailed in the project plans (sheets C40 and C-41 of Exhibit No. 10 and updated table attached as Exhibit No. 13) identify a land base

of over 1,100 acres of upland agricultural lands on 13 different properties capable of receiving up to 469,970 cubic yards of excavated sediments (the excess material is expected to total approximately 425,600 cubic yards). Various property owners in the coastal zone (see Appendix B) are interested in receiving the excavated sediments for agronomic use. According to the example sediment reuse plan (Exhibit No. 14) submitted as a general template for future plans proposed to be developed for each of the various properties proposed to receive excavated sediments, material will be delivered via belly dumps or end dump trucks and windrowed within agricultural upland areas during the months of June through October. Windrows will be approximately 5 feet high and 10 feet wide and will remain for no more than 18 months before being applied to upland pastures by individual farmers. BMPs to prevent wind- and rain-induced erosion will be implemented during the windrowing and application of sediment on the agricultural fields. Based on conversations with the applicant, it is anticipated that farmers will spread a 3- to 4-inch-thick layer of the excavated sediments as a top-dressing on upland pastures. The material then would be "scratched" in and subsequently irrigated to stimulate pasture growth. The area may then be tilled to further incorporate the sediment amendments and to aerate the soil.

Because many of the delineated uplands proposed to receive excavated sediments for agronomic benefit are located close or adjacent to seasonal wetlands ("transitional agricultural lands"), the applicant prepared a wetland buffer assessment for the sediment reuse areas (see Substantive File Documents, pages 2-3). The assessment analyzed the minimum effective width of a grass (pastureland) filter buffer necessary to reduce the potential for sediment runoff from sediment reuse areas into agricultural wetland pasture areas. The report considered the sensitivity of the wetland resources to be protected (generally agricultural wetlands subject to agricultural management activities such as tilling, seeding, grazing, and haying on a routine basis) and the potential for adverse impacts to the wetland resources from the proposed nearby sediment reuse on upland pasturelands (e.g., the potential for discharge of sediments into wetland areas based on factors such as rainfall, soil erosiveness, slope, vegetative cover, and others). The report concludes that for parcels where upland delineations were conducted at a high resolution (i.e., soil, vegetation, and hydrology data were conducted along transects so that sample plots were positioned on both sides of wetland/upland boundaries), a setback distance of 30 feet between agricultural wetlands and sediment reuse areas will be adequate to protect wetland resources from adverse impacts associated with dredged material disposal (i.e., sediment stockpiling and subsequent reuse on agricultural uplands). For parcels where upland delineations were conducted at a lower resolution (e.g., data were collected throughout pastures, with wetland/upland boundaries recorded with an average-quality GPS unit and/or mapped on an aerial photos and subsequently digitized into a GIS database), a conservative setback distance of 100 feet will be applied to ensure adequate protection of agricultural wetlands from adverse impacts associated with excavated sediment disposal.

The Commission finds that for the subject agricultural wetlands, the factors most significant to the determination of buffer width adequacy are (a) the low biological significance of the lands adjacent to the agricultural wetlands, (b) the low importance of a

large buffer to avoid habitat disturbance provided other mitigation measures are provided, and (c) the low susceptibility of the area around the wetland to erosion. These agricultural wetlands, their adjacent buffer areas, and surrounding upland agricultural lands all are subject to agricultural management activities such as tilling, seeding, grazing, and haying on a routine basis. Thus, unlike certain other types of wetlands, the subject agricultural wetlands do not depend on the functional relationships of adjacent lands that a larger buffer area is usually intended to protect such as supporting habitats for wildlife breeding, nesting, feeding, or resting activities. So in the case of these wetlands, there is less of a need for a wide buffer to help sustain the habitat on the site. In addition, the fact that the entire agricultural region, including sediment reuse areas, buffer areas, and agricultural wetland areas, is more or less flat (slopes less than 2 percent) indicates that erosion and sedimentation from sediment reuse areas are less likely to affect the wetland resources than erosion and sedimentation impacts in steeper-sloped areas, particularly with the implementation of the various BMPs proposed in the example sediment reuse plan. Therefore, the Commission finds that a 30-foot buffer between delineated agricultural wetlands and upland areas proposed for sediment reuse on properties that received a high resolution delineation (that was verified by the Commission's ecologist, as previously mentioned) will be adequate to protect the wetland ESHA from possible significant disruption caused by the proposed development (i.e., excavated sediment disposal/reuse), and the proposed 100-foot buffer will be adequate for properties that received a lower resolution delineation (since 100 feet is conservative enough to account for any errors in the delineations of wetland/upland boundaries resulting from the low resolution delineation methods described above while still maintaining adequate buffers to protect adjacent agricultural wetlands from possible significant disruption caused by the proposed disposal of excavated sediments). However, the Commission finds that restricting the window when sediments could be spread across upland areas for agricultural reuse to the dryer season would further protect against the potential for erosion and sedimentation impacts in the event of a large magnitude overbank flood along the Salt or Eel Rivers.

Thus, to ensure that site-specific plans are prepared as proposed for each of the properties proposed to receive excavated sediments, and to further ensure that the window when sediments could be spread across upland areas for agricultural reuse is restricted to the dryer season, the Commission attaches **Special Condition No. 13**. This condition requires submittal of the various final sediment reuse plans prior to commencement of Phase 2 construction for the Executive Director's review and approval. Each sediment reuse plan shall substantially conform to the proposed example sediment reuse plan (Exhibit No. 14), except that each plan shall be site-specific for each property and shall include various specified narrative and graphical information such as (a) the upland acreage available on the subject property for receiving dredged spoils for sediment reuse; (b) the amount of dredged spoils proposed to be placed on the subject property for sediment reuse; (c) generally when, how, and where the dredged spoils will be applied on the subject property; (d) the work window for sediment application on agricultural uplands, with the restriction that sediments shall be applied only during the generally dryer period of April through November; (e) specific BMPs to be used to ensure that no wind- or rain-induced erosion results from the stockpiling and application of material on the subject site; (f) the applicable setback distances from the sediment windrowing and application areas that shall

be established on the subject property; and (g) any limitations and restrictions imposed on established buffer areas during the reestablishment of vegetation following sediment application on the sediment reuse area. The condition further requires that the applicant ensure that sediment disposal/reuse is undertaken in accordance with the approved final plans.

Furthermore, to ensure that any excess material (including excess sediments not proposed or available for beneficial reuse as well as other excess material expected to be generated by the proposed work) is appropriately disposed of and does not result in impacts to coastal wetlands or other environmentally sensitive habitats, the Commission attaches **Special Condition No. 6** requiring submittal of final debris disposal plans prior to commencement of each phase of construction for the Executive Director's review and approval. As discussed above, the plans are required to demonstrate that (a) all temporary stockpiles of construction debris, excess sediments, vegetative spoils, and any other debris and waste associated with the authorized work shall be minimized and limited to areas within the proposed project footprint as depicted on the final approved construction plans required by Special Condition No. 5 and where they can feasibly be contained with appropriate BMPs to prevent any discharge of contaminants to coastal waters and wetlands; (b) all construction debris, excess sediments, vegetative spoils, and any other debris and waste expected to be generated by the authorized work shall be disposed of at an authorized disposal site(s) capable of receiving such materials; and (c) side casting or placement of any such material within coastal waters and wetlands is prohibited.

v. IMPACTS ASSOCIATED WITH FUTURE MAINTENANCE ACTIVITIES

As discussed above in Finding IV.B-(5), given the magnitude of the project, the variety of habitats and hydrologic conditions, the high initial disturbance to the ecosystem, interactions with agricultural land uses, and the typical level of uncertainty associated with the evolution of ecosystem restoration projects, the project is proposing future maintenance and adaptive management activities under this CDP application. Some of the proposed future maintenance work would occur in coastal waters and wetlands. The Adaptive Management Plan (AMP) and Table A-1 supplement to the AMP (Exhibit No. 20) detail the different types of development that may be undertaken in the future for maintenance and adaptive management purposes. These include development such as implementing site-specific erosion control BMPs, removing channel obstructions, installing or modifying instream structures such as large woody debris, channel excavation to remove sediment to improve channel function, additional Riverside Ranch breaches and/or levee lowering, and various other potential management actions. The table describes each potential management action, where, when, and how frequently it would be conducted, proposed methods of implementation, maximum quantity of associated material, and impact avoidance measures and BMPs to be used in the undertaking of each management action.

The Commission finds that although the level of detail presented in the AMP in some cases is sufficient to understand the potential impacts associated with each proposed future management action, in other cases it lacks the specificity needed to evaluate the measures consistency with the Chapter 3 policies of the Coastal Act and to ensure that all feasible

mitigation measures are provided to minimize adverse impacts. For example, although the BMPs presented in the AMP generally are appropriate, they do not incorporate all the various precautionary measures the Commission has deemed necessary (in its attachment of the various special condition previously discussed) for maximizing coastal resources protection during the course of the proposed work. In addition, in some cases the measures and protocols proposed under the AMP do not go far enough to ensure that coastal resources will be adequately protected during maintenance and adaptive management activities. Therefore, **Special Condition No. 14** requires the applicant to submit a final revised adaptive management plan for the Executive Director's review and approval that substantially conforms with the submitted plan, except that it shall be revised to include provisions for all of the following (among others): (1) including all measures, protocols, and BMPs listed in Special Condition Nos. 2 through 13 of CDP No. 1-10-032 as they relate to each specific "potential management action" listed in AMP Supplement Update Table A-1; (2) limiting the channel excavation to remove sediment to improve channel function to an area not to exceed 25,000 cubic yards of sediment and 2,000 linear feet of sediment removal; (3) restricting pre- and post-storm maintenance activities in the channel to the period of June 1 through November 30 only; (4) prohibiting the removal of any native vegetation in riparian forest restoration areas and existing riparian areas; (5) restricting the trimming/removal of woody vegetation annually to areas of five acres or less within Sediment Management Areas, active bench areas, and active channel areas only, and within these areas only young (i.e., less than 5-year-old) trees and shrubs no larger than 4 inches in diameter are permitted to be removed; (6) restricting the work window for applying/placing excavated sediment on agricultural lands to the dry season period of April through November only; and (7) including criteria for flash grazing, including restricting grazing for limited time periods across limited acreages to active bench areas and upland berm areas only, provided that pre-construction rare plant surveys are conducted in proposed grazing areas within or adjacent to rare plant suitable habitat, and temporary livestock exclusion fencing is installed to exclude livestock from channels, riparian areas, and other sensitive habitat areas.

The applicant has requested authorization to undertake maintenance and adaptive management activities on an annual basis as needed for an unspecified duration of time. The Commission has, on occasion, granted special districts multi-year permits for such activities in order to reduce both Commission and District staff workload associated with processing repetitive, routine coastal permits (e.g., CDP No. 3-04-72 Moss Landing Harbor District routine pier replacement; CDP No. 3-00-034 Santa Cruz Port District routine maintenance dredging; CDP No. 3-02-047 Monterey Harbor routine operations and maintenance; CDP No. 1-03-004 Reclamation District levee repair and maintenance; CDP No. 1-07-041 Humboldt County Public Works Dept. annual sediment removal from Jacoby Creek; and others.). However, given the fact that circumstances can change over time and techniques for addressing maintenance needs can also evolve, the Commission chooses to grant an initial five year period of development authorization with a one-time ability to extend the period of development authorization for another five years for a maximum total of 10 years of development authorization, if there are no changed circumstances that require review of the maintenance and management operations to ensure the development remains consistent with the Chapter 3 policies of the Coastal Act. Therefore, the

Commission attaches **Special Condition No. 15**, which limits the authorized maintenance and adaptive management development to five years, but grants the Executive Director the authority to approve a request for an additional five years of maintenance and adaptive management operations provided that the request would not alter the project description and/or require modifications of the conditions due to new information or technology or other changed circumstances.

Finally, to ensure that the various standards and restrictions required by the special conditions continue to be implemented during the course of long-term maintenance and adaptive management operations, the Commission attaches Special Condition No. 16. **Special Condition No. 16** requires submittal of an annual maintenance/adaptive management operations plan for the Executive Director's review and approval each year that (a) is consistent with the final revised AMP approved by the Executive Director pursuant to Special Condition No. 14, (b) is consistent with all terms and conditions of the CDP, and (c) contains, at a minimum, the following information: (1) a site plan depicting the location(s) of proposed annual maintenance and/or adaptive management activities; (2) a description of the type(s) of annual maintenance/adaptive management activities proposed; (3) cross sections, maps, and associated calculations as necessary that accurately depict the proposed annual maintenance/adaptive management work area(s); (4) copies of any necessary biological and botanical surveys needed for approval of annual maintenance/adaptive management activities; (5) a plan for erosion, run-off, and sedimentation control to avoid significant adverse impacts on coastal resources; (6) if applicable, a debris disposal plan consistent with Special Condition No. 6; (7) if applicable, a creek dewatering and diversion plan consistent with the protection measures outlined in Special Condition No. 7; (8) if applicable, a revegetation plan consistent with restrictions enumerated in Special Condition No. 12; (9) if applicable, a sediment reuse plan consistent with Special Condition No. 13; and (10) a schedule for proposed annual maintenance/adaptive management activities.

Conclusion:

In conclusion, the Commission finds that as conditioned to require the various mitigation measures described above for Special Condition Nos. 3 through 16, the proposed project provides feasible mitigation measures to minimize potential impacts to water quality, sensitive species, wetlands, and other environmentally sensitive habitats, as required by Sections 30230, 30231, and 30233(a) of the Coastal Act.

(4) MAINTENANCE AND ENHANCEMENT OF MARINE HABITAT VALUES

The fourth general limitation set by Section 30233 is that any proposed dredging and/or filling in coastal wetlands must maintain, enhance and where feasible restore the biological productivity and functional capacity of the habitat. Section 30233(c) states that the diking, filling, or dredging of wetlands shall maintain or enhance the functional capacity of the wetland. Sections 30230 and 30231, as discussed above in Finding IV.C, state that marine resources shall be maintained, enhanced, and, where feasible, restored.

As discussed above, the conditions of the permit will ensure that the project will not have significant adverse impacts on the water quality of coastal waters in the project area and that the project construction will not adversely affect the biological productivity and functional capacity of coastal waters or wetlands. Furthermore, the restoration project's stated purpose is to enhance and restore the functional capacity and biological productivity of coastal wetlands and waters necessary to maintain healthy populations of marine organisms, and conditions of the permit will ensure that the site is monitored for achievement of these goals. In short, the proposed restoration work will provide extensive benefits to marine resources such as sensitive fish and estuarine plant species, and it will provide needed "critical habitat" for listed salmonids and tidewater goby. Therefore, the Commission finds that the project, as conditioned, will maintain and enhance the functional capacity of the habitat, maintain and restore optimum populations of marine organisms and protect human health consistent with the requirements of Section 30233 of the Coastal Act.

(5) MAINTENANCE AND ENHANCEMENT OF MARINE HABITAT VALUES

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

E. DEVELOPMENT WITHIN COASTAL RIVERS & STREAMS

The development proposed to the Salt River and portions of Francis Creek, the Eastside Drainage channel, and other tributary streams that includes (a) the excavation of over 600,000 cubic yards of material from river and stream channels, (b) the restoration of an active channel, the creation of a variable width bench adjacent to the active channel, and the creation of as sediment management areas, and (c) the restoration of riparian forest cover along the outer edges of the active benches constitutes "substantial alteration" of rivers and streams that must be found consistent with the more specific provisions of Section 30236 of the Coastal Act.

Section 30236 of the Coastal Act states the following:

> *Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (l) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.*

The proposed project will involve substantial alterations to the lower 7.5 miles of the Salt River and the lower reach of Francis Creek. There will be over 600,000 cubic yards of material excavated from over 44,000 linear feet of river and stream channels. The

alterations will remove sediment deposits and reconstruct channels with geomorphic elements that more closely resemble the riverine habitats that historically occurred along the drainage corridors but have been lost over time to aggradation and land use practices in the region. Geomorphic elements of the proposed restored river channel corridor include (1) a restored approximately 15-foot- to-24-ft-wide active channel (designed to function as a high velocity channel capable of transporting sediment and water volumes over a wide range of flows); (2) a variable width (ranging from as narrow as 12 ft to as wide as ~188 ft) active bench adjacent to each side of the restored active channel (designed in some areas to function as a sediment deposition zone where future sediment management activities will occur in three proposed "active sediment management areas" as needed pursuant to the proposed Adaptive Management Plan); and (3) a restored riparian forest corridor lining the outer edges of the active benches planted with Sitka spruce, black cottonwood, and other regionally appropriate riparian species. In addition, willows and other riparian trees will be planted along the active channel (along a 10-25-foot-wide "active berm") to provide shading for the main river channel and help inhibit colonization by invasive species. The active bench areas will be restored as riverine wetland habitat planted with slough sedge, common spike rush, and salvaged native species.

The first test set forth by Section 30236 is that any proposed substantial alteration of a river or stream may be allowed only if it's for one of the purposes enumerated in the policy. In addition, the development must provide the best mitigation measures feasible to minimize the significant adverse environmental effects of the substantial river or stream alteration.

In the subject case, the project has two principal objectives, both of which are enumerated 30236 purposes: (1) flood alleviation to protect existing roads, houses, agricultural structures, public infrastructure, and other development in the floodplain; and (2) necessary improvement of fish and wildlife habitat.

(1) FLOOD ALLEVIATION PURPOSE

One principal objective of the proposed "substantial alteration" of the Salt River channel is flood alleviation to protect County roads, the Ferndale wastewater treatment plant, existing residences, agricultural structures, public infrastructure, and other development in the floodplain.

Flooding is a natural component of the Salt River system. The entire project area lies within FEMA's 100-year flood zone. Furthermore, the Salt River channel and project area upstream of Reas Creek, including proposed agricultural sediment reuse areas, are almost entirely in the Eel River floodway. Flood hazards along the Salt River are related both to overbank flows from the Eel River and storm runoff from the Wildcat tributaries.

As previously discussed, loss of natural drainage features and loss of tidal exchange in combination with high sediment loads and channel filling have greatly accelerated the frequency of flooding and the duration of inundation for flood-prone areas. Flooding is common along the lowland areas of the Eel River Delta and is initiated seasonally in many

areas during moderate rainfall events. Floodwaters from both the Salt and Eel Rivers periodically overtop the channel banks and spill over the gently sloping lands of the delta. Flooding due to overbank flow from the Salt River and its tributaries has increased in recent decades due to geomorphic changes that have reduced the capacity of the Salt River channel to convey runoff. A combination of factors that increased the volume of sediment entering the Salt River system and factors that decreased the energy available to transport sediment out of the system triggered rapid sedimentation across the Salt River portion of the Eel River Delta. The mainstem Salt River at Port Kenyon, once 200-feet wide and 15-feet deep, has filled in leaving a channel approximately 3 feet wide and 2 feet deep. Most areas of the channel upstream of the Reas Creek confluence have filled in completely. Annual flooding of lowland areas is now commonly triggered by relatively minor precipitation events, and areas along the Salt River that formerly drained relatively quickly now remain ponded well into the summer. NOAA-Fisheries staff (Tauzer 2009) has estimated that flooding along the Salt River occurs well under a one-year recurrence interval. There currently is no positive drainage below the confluence with Francis Creek, thus all flood waters (and sediment to some extent) pond and disseminate across the vicinity causing long-standing ponding and inhibiting productive land use.

Overbank flooding from the Eel River begins at a stage of 19 feet at Fernbridge (approximately 2 miles east of the project area on the Eel River), with overbank floods occurring on the average of every six years. Large magnitude flood events (e.g., 1861/62, 1955 and 1964, which were in excess of 100-year flood events) inundate the entire Salt River project area, depositing significant volumes of sediment and causing extensive flood damage to the local community. Overbank flow enters a network of abandoned meander channels at the eastern side of the delta, inundates the floodplain and adjacent land areas, and eventually drains off of the delta via the Salt River or the Old River/Perry Slough system. Historically, overbank flood waters from the Eel River were directed into the far upstream reach of the Salt River and directed back to the Eel River via flow through the Salt River. The Leonardo Levee was constructed at the far upstream end of the Salt River in 1967 to reduce the frequency and extent of floodwater introduction to the Salt River. According to the Final EIR, the Leonardo Levee provides protection up to approximately the 10-year frequency flood event and has been repaired at least twice by the Army Corps of Engineers, most recently in 1986. The reduction in Eel River floodwater drainage and sediment scour/transport through the Salt River has contributed to excessive accumulation over the past century.

As cited above, the first test set forth by Section 30236(2) (...*flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development*...) is, if the substantial alteration of the river or stream is for a flood control purpose, there must be no other feasible method for protecting existing structures within the floodplain.

It is conceivable that flood hazards in the Salt River region could be managed through other methods than proposed. For example, dams hypothetically could be constructed upstream in tributary watersheds, impounding floodwaters into reservoirs and allowing their release over time at flow rates that would not result in inundation of lands within the

lower watershed. However, the applicant does not possess either the land base or the capital necessary to develop such large public works facilities. Notwithstanding these financial limitations, damming or diversions also would result in far greater and wide-reaching significant adverse environmental impacts than would the proposed river corridor reconstruction project. Furthermore, this alternative would do nothing to correct the hydrologic dysfunction of the existing river and creek channels, so annual flooding problems would continue for the foreseeable future.

Another hypothetical flood control option would be to construct a series of sediment basins to reduce the amount of sediment entering the Salt River. Based on a study completed by the Natural Resources Conservation Service (Soil Conservation Service) in the 1990s, basins would need to be located on Reas Creek (100 feet upstream of Meridian Road), Francis Creek (100 feet upstream of the Port Kenyon Culvert), and Williams Creek (100 feet upstream of the Salt River confluence). Similar to the previous alternative however, this alternative likewise would do nothing to correct the hydrologic dysfunction of the existing river and creek channels.

A third hypothetical option for flood control is constructing large levees throughout the length of the river corridor, similar to Leonardo levee constructed at the far upstream end of the Salt River in 1967 to reduce the frequency and extent of floodwater introduction to the Salt River from the Eel River. Again, the applicant does not possess either the land base or the capital necessary to develop such large public works facilities, and this alternative would result in far greater and wide-reaching significant adverse environmental impacts than would the proposed river corridor reconstruction project which, as discussed above and in more detail below, is needed for significant fish and wildlife habitat improvements.

Thus, the Commission finds that no other feasible measures currently exist to protect County roads, the Ferndale wastewater treatment plant, and houses, barns, and other structures in the region from flooding within the lower Salt River floodplain.

The second test set forth by Section 30236(2) is that the flood control project is necessary for public safety or the protection of existing development.

The proposed project is necessary to alleviate chronic flooding of County roads (e.g., Port Kenyon Road), the Ferndale wastewater treatment plant, and various residential and agricultural structures. As discussed above, in 2010 the Commission authorized Emergency Permit No. 1-10-035-G in part to allow for the emergency removal of a sediment plug at the Port Kenyon Road/Francis Creek crossing. The substandard road crossing conditions led to sediment buildup in the channel, which in turn led to flooding of the roadway and surrounding areas during heavy rains and hazardous driving conditions or necessary road closure. Also as discussed above, sediment deposition near the confluence of Francis Creek and the Salt River puts the entire wastewater treatment plant at increasing risk of being flooded. There is no question that chronic annual flooding seriously jeopardizes the public safety of travelers along Port Kenyon Road and other County roads

in the vicinity and could involve extensive damage to existing structures within the lower river drainage.

In summary, the Commission finds that the proposed flood control project is necessary for public safety and for the protection of existing development. In addition, as stated above, the Commission finds that no other feasible measures currently exist to protect County roads, the Ferndale wastewater treatment plant, and houses, barns, and other structures in the region from flooding within the lower Salt River floodplain.

(2) FISH & WILDLIFE HABITAT IMPROVEMENT PURPOSE

The second principal objective of the proposed "substantial alteration" of the Salt River channel is the necessary improvement of fish and wildlife habitat in the Salt River [Section 30236(3)].

As discussed above, the project has been designed to provide extensive fish habitat improvements, including habitats for coho salmon, Chinook salmon, steelhead trout, and coastal cutthroat trout. The reconstructed channel will reconnect access to approximately 15 miles of salmonid spawning habitat in Reas, Francis, and Williams Creeks. Additionally, it will improve over 7.5 miles of habitat within the mainstem Salt River with multiple fish habitat features such as alcoves and instream structures. Furthermore, the channel reconstruction will be designed to provide necessary transition (salt/freshwater) habitat for juvenile coho and other salmonids and needed tidewater goby and eelgrass habitats.

In addition to its fish habitat benefits, the proposed channel reconstruction work will restore the diversity of habitats that historically occurred in the river corridor, including Sitka spruce forest riparian habitat, active bench habitats, and transitional "ecotone" habitats between estuarine/freshwater and wetland/ upland areas. The restored habitat and vegetative diversity along the river corridor will promote a greater diversity of birds and other wildlife and will be significantly more valuable than the monotonous willow and alder stands that currently choke the existing river system. Moreover, "wildlife-friendly" fencing is proposed to be erected at the interface of restored riparian habitats with agricultural lands to protect the restored habitat areas from livestock impacts while allowing deer, fox, and other wildlife to migrate through the area unimpeded.

Therefore, the Commission finds that the proposed substantial alteration of the river and creek channels is indeed for the necessary improvement of fish and wildlife habitat.

(3) INCORPORATION OF THE BEST MITIGATION MEASURES FEASIBLE

The second test set forth by Section 30236 of the Coastal Act is whether the best feasible mitigation measures have been provided to avoid or minimize the significant adverse environmental impacts associated with the proposed substantial alteration of rivers and streams.

i. PROTECTION OF SENSITIVE BIRD BREEDING AND NESTING HABITAT

In order to restore the hydrology and habitats of the Salt River as proposed, approximately 45 acres of mature riparian vegetation (primarily willows and alders) growing within the river and creek channels will be removed prior to construction. The project has been designed to avoid impacts to 52 acres of riparian vegetation in the project area, and the project proposes to restore an additional 76 acres of the Sitka spruce riparian forest habitat that historically occurred in the area. Thirteen acres of riparian vegetation is proposed for removal this fall, and an additional 32 acres will be removed next summer/fall.

As described above in Finding IV.A-(3), the riparian habitat in the project area occurs in a 50-200-foot-wide corridor within and around the Salt River channel and adjacent levees as well as narrower bands and patches along tributary drainages. The vegetation consists mostly of various species of willows, red alder, and black cottonwood, along with California blackberry, thimbleberry, and other shrub and herbaceous species. The riparian habitat supports a relatively high diversity of birds throughout the year, including breeding habitat for neotropical migratory and resident species. Two state-listed endangered bird species that occur in the riparian habitat in the project area are willow flycatcher and yellow-billed cuckoo. Other sensitive bird species that are known to occur or have a high potential to occur in the riparian area (based on 2010 surveys) include black-capped chickadee, yellow warbler, purple martin, and nesting white-tailed kite.

The proposed riparian habitat will consist of a greater diversity of woody species than is present in the existing mostly willow stands that inhabit the project area. Therefore, the restored riparian habitat, as it matures, will have a beneficial effect (in terms of habitat availability) on a variety of birds, including sensitive birds such as willow flycatcher and yellow-billed cuckoo. As previously discussed, the final revised habitat monitoring and reporting program required by **Special Condition No. 2** is required to include provisions to ensure that the proposed planting plan has been built-to-plan with regard to location, spacing, and species diversity within four months following the completion of planting within each restoration area (both phases). It also is required to include provisions for quantitative monitoring of the riparian restoration areas within each habitat reach and type to ensure that the habitat is developing as intended in terms of size, cover, and species diversity.

The applicant has proposed to remove the 45 acres of riparian vegetation outside of bird breeding and nesting seasons (i.e., outside of the March 1-July timeframe) to avoid impacting sensitive nesting habitat. **Special Condition No. 9** is required to ensure that this seasonal vegetation removal restriction is implemented.

Although direct impacts to bird nesting habitat will be avoided through the vegetation removal restrictions imposed by Special Condition No. 9, other site preparation and construction activities that will occur during the bird breeding and nesting seasons could disturb occupied nests adjacent to the work area. The applicant has proposed (as a mitigation measure in the Final EIR) minimizing disturbance to nesting birds by establishing “no activity” zones around nests that are located during pre-construction

surveys to be completed no more than one week prior to commencement of construction activities. The proposed buffer zone widths are based on DFG comments submitted during the CEQA process.

To minimize impacts to adjacent nesting birds and to ensure implementation of the proposed mitigation measures and no-disturbance buffers recommended by DFG, the Commission includes **Special Condition No. 10.** This condition requires the applicant to submit, prior to commencement of Phase 1 construction for the Executive Director's review and approval, a Sensitive Bird Nesting Habitat Protection Plan, prepared by a qualified biologist, for conducting seasonally appropriate pre-construction surveys for sensitive bird nesting habitat in the project area and for protecting such habitat from construction impacts. The plan must include provisions for (1) surveying the project area by a qualified biologist according to current DFG protocols no more than one week prior to commencement of construction activities proposed to occur during the bird breeding and nesting season for the presence of active nesting habitat; (2) avoiding activities during the nesting season within 100 feet of an occupied nest of any native migratory bird species; within 300 feet of an occupied nest of any special-status bird species; and within 500 feet of an occupied nest of any raptor species; and (3) submittal of the surveys required above for the review and approval of the Executive Director prior to the commencement of the authorized work each construction season that include a map that locates any sensitive nesting habitat identified by the surveys and a narrative that describes sensitive avoidance measures proposed.

ii. OTHER FEASIBLE MITIGATION MEASURES

As discussed in Finding IV.D above, the Commission finds it necessary to include Special Condition No. 2, which requires submittal of a final revised habitat mitigation and monitoring plan to ensure that the permissible development does not result in long-term degradation of the surrounding habitats and achieves the objectives for which it is intended. Furthermore, as also discussed in Finding IV.D above, the Commission requires Special Condition Nos. 3-8 and 11-15 as feasible mitigation measures to minimize the project's potential impacts to water quality, sensitive species, wetlands, and other environmentally sensitive habitats. To summarize:

- Special Condition No. 3 imposes various construction responsibilities that must be adhered to during construction to protect water quality and sensitive habitats in and adjacent to the project area.
- Special Condition No. 4 requires submittal of a final Storm Water Pollution Prevention Plans for both proposed phases of construction prior to commencement of Phase 1 construction.
- Special Condition No. 5 requires submittal of final construction plans, including final Phase 1 plans, Phase 2 plans, and Francis Creek culvert replacement plans, that substantially conform to the proposed plans and also shall be consistent with all special conditions of this CDP.

- Special Condition No. 6 requires submittal of final debris disposal plans ensuring that no construction debris or materials contaminate coastal waters or wetlands.
- Special Condition No. 7 requires the applicant to undertake development in accordance with various fish and aquatic resources protection measures and protocols.
- Special Condition No. 8 requires the permittee to monitoring and if necessary to control for nonnative Sacramento pikeminnow in the restored aquatic habitats as proposed in the June 2011 Biological Assessment.
- Special Condition No. 11 requires submittal of a revised rare plant mitigation and monitoring plan that includes provisions for eelgrass mitigation and monitoring.
- Special Condition No. 12 sets revegetation standards and restrictions to ensure that only native and non-invasive species are planted and seeded in the area.
- Special Condition No. 13 requires submittal of the various final sediment reuse plans that are site-specific for each property proposed to receive excavated sediments for agronomic reuse to ensure that agricultural wetlands are adequately protected.
- Special Condition No. 14 requires submittal of a final revised adaptive management plan that incorporates all the various precautionary measures the Commission has deemed necessary (in its attachment of the various special conditions cited above) for maximizing coastal resources protection during the course of the proposed maintenance and adaptive management work.
- Special Condition No. 15 limits the authorized maintenance and adaptive management development to five years, but grants the Executive Director the authority to approve a request for an additional five years of maintenance and adaptive management operations provided that the request would not substantively alter the project description and/or require modifications of the conditions due to new information or technology or other changed circumstances.
- Finally, Special Condition No. 16 requires submittal of an annual maintenance/ adaptive management operations plan for the Executive Director's review and approval each year that maintenance/adaptive management activities are conducted pursuant to this CDP authorization to ensure that the various standards and restrictions required by the special conditions continue to be implemented during the course of long-term maintenance and adaptive management operations.

(4) INCORPORATION OF THE BEST MITIGATION MEASURES FEASIBLE

As (1) the dual principal objectives of the project are the necessary improvement of fish and wildlife habitat and flood alleviation to protect existing structures and development in the floodplain, both permissible uses under Section 30236, (2) no other feasible measures currently exist for protecting structures within the area, and (3) such protection is necessary to protect public safety and existing development, the proposed substantial streambed alteration of the Salt River and tributary drainages is allowable under Coastal Act Section

30236. Further, the proposed project, as conditioned, incorporates all feasible mitigation measures to minimize or avoid significant adverse environmental effects. Therefore, the Commission finds that as conditioned herein, the proposed project is consistent with the requirements of Section 30236 of the Coastal Act.

F. PROTECTION OF AGRICULTURAL LANDS

Coastal Act Section 30241 states as follows:

> *The maximum amount of prime agricultural land shall be maintained in agricultural production to assure the protection of the area's agricultural economy, and conflicts shall be minimized between agricultural and urban land uses through all of the following:*
>
> *(a) By establishing stable boundaries separating urban and rural areas, including, where necessary, clearly defined buffer areas to minimize conflicts between agricultural and urban land uses.*
>
> *(b) By limiting conversions of agricultural lands around the periphery of urban areas to the lands where the viability of existing agricultural use is already severely limited by conflicts with urban uses or where the conversion of the lands would complete a logical and viable neighborhood and contribute to the establishment of a stable limit to urban development.*
>
> *(c) By permitting the conversion of agricultural land surrounded by urban uses where the conversion of the land would be consistent with Section 30250.*
>
> *(d) By developing available lands not suited for agriculture prior to the conversion of agricultural lands.*
>
> *(e) By assuring that public service and facility expansions and nonagricultural development do not impair agricultural viability, either through increased assessment costs or degraded air and water quality.*
>
> *(f) By assuring that all divisions of prime agricultural lands, except those conversions approved pursuant to subdivision (b), and all development adjacent to prime agricultural lands shall not diminish the productivity of such prime agricultural lands.*

The referenced section of Coastal Act Section 30250 states as follows:

> *(a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources.*

Coastal Act Section 30242 states as follows:

> *All other lands suitable for agricultural use shall not be converted to nonagricultural uses unless (l) continued or renewed agricultural use is not feasible, or (2) such conversion would preserve prime agricultural land or concentrate development consistent with Section 30250. Any such permitted conversion shall be compatible with continued agricultural use on surrounding lands.* [Emphasis added.]

In addition, Coastal Act Section 30250 requires consideration of the cumulative impacts of development (defined in Coastal Act Section 30105.5) as follows:

> *"Cumulatively" or "cumulative effect" means the incremental effects of an individual project shall be reviewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.*

The total acreage of the project area is 808 acres, of which approximately 598 acres is currently being used for agricultural purposes (mostly livestock grazing). With the exception of the 440-acre Riverside Ranch owned by DFG, the entire project area, including grazing land, is privately owned by a multitude of different landowners (see Appendix B).

As discussed in the Findings below, the proposed project will result in the conversion of 273 acres of non-prime pastureland in the project footprint to other habitat types, notably tidal marsh and channel areas. This conversion, essential to the reintroduction of tidal prism and scouring of the restored Salt River channel, will occur at Riverside Ranch. Elsewhere along the proposed channel, 52 acres of prime agricultural land located within the historic Salt River channel, and likely subject to the public trust, will be converted to various riverine habitat types. All prime agricultural land proposed for conversion is located along the channel corridor. According to analyses prepared by the applicant and the State Coastal Conservancy, with input from agricultural economists, dairy advisors, and ranchers (Exhibit No. 23), the total conversion would result in the loss of approximately 2,298 Animal Unit Months (AUMs) per year.[6] Despite this loss, however, the project is expected to protect and enhance approximately 750 acres of mostly prime agricultural land in the coastal zone, resulting in an increase of approximately 4,270 AUMs per year, for an overall net gain of 1,972 AUMs per year.

(1) SIGNIFICANCE OF AGRICULTURAL LANDS IN HUMBOLDT COUNTY AND THE EEL RIVER DELTA

Humboldt County has a total land area of approximately 2.3 million acres, and approximately one third of this land base (~690,000 acres) is directed to some type of agricultural use. According to the Humboldt County Farm Bureau's website,[7] about 67,000 acres of land is classified as being under intensive farming (e.g., harvested cropland and cropland used only for pasture), while an estimated 605,000 acres of land is used primarily for grazing-related purposes (e.g., pastureland and rangeland). Traditional agriculture in the county consists of grazing beef cattle on coastal rangeland; dairy cows on rich pasture bottomlands around Humboldt Bay and the Eel River Estuary; and row crops and orchards

[6] An "animal unit" (AU) is a standardized measure of animals used for various agricultural purposes. A 1,000-pound beef cow is the standard measure of an animal unit. The dry matter forage requirement of one animal unit is 26 pounds per day. Animal unit equivalents (AUE) are calculated for various other animals. A 700-pound steer is 0.80 animal units. A 1,300 pound horse is 1.20 animal units. A 120-pound sheep is 0.20 animal units. The amount of forage used by one animal unit in a month is an "animal unit month."

[7] http://www.humboldtfarmbureau.org

on terraced river floodplains. The region's mild and moist climate complements a growing nursery and bulb industry.

The high rainfall, deep, fertile soil, and marine climate make some of the County's agriculture land highly productive. Humboldt County agricultural products (excluding timber) had a market value of approximately $131 million in 2008,[8] with the top four crops, by value, excluding timber, consisting of nursery stock (cut flowers, ornamental tree production, etc.), milk and milk products, livestock (beef cattle, dairy cows, sheep, etc.), and field crops (alfalfa, silage, range, etc.). Although Humboldt County agricultural production does not compare in quantity or economic value with California's leading agricultural counties (e.g., local dairies produce only one percent of California's annual milk products[8]), dairy and ranch lands are "etched more deeply into Humboldt County's cultural and aesthetic landscape than economic data can convey."[9] The ranches that spread out across the vast pastureland surrounding Humboldt Bay, the Eel River and Mad River deltas provide habitat for numerous wildlife and migrating waterfowl. These open spaces, both within the coastal zone and inland, represent a significant resource with a multitude of values.

The protection of the County's agricultural land in the coastal zone is a primary goal of the certified Humboldt County Local Coastal Program (LCP). There is an estimated 32,500 acres of agricultural land (i.e., land designated and zoned for agricultural uses) in the County's coastal zone. Approximately 60 percent (19,700 acres) of this agricultural land is within the Eel River Area Plan (ERAP) planning area (including approximately 5,500 acres of "transitional agricultural wetlands" as described in Finding IV.A(3) above). [The ERAP is one of six planning areas identified in the County's certified LCP and is the LUP associated with the subject site]. This land is either in active agricultural use or has the potential for such use. Livestock grazing and forage production comprise the primary uses of agricultural land in the Eel River Delta.

The project area spans a mosaic of Eel River Delta dairy pasturelands in the heart of Humboldt County's dairy industry. According to the Ferndale Chamber of Commerce's website:[10]

> The dairy-farming Danes, arriving in the 1870s, brought practices from their homeland. Each small neighborhood of dairymen formed its own cooperative creamery. By 1890 there were eleven separate creameries operating in the immediate Ferndale area. Ferndale butter was considered the finest in the state, bringing premium prices in San Francisco. Ferndale acquired its first nickname, 'Cream City.'
>
> Shortly after 1900 many of the small creameries consolidated into larger creameries. The Central Creamery, located on north Main Street, became the mother plant of the Golden

[8] Humboldt County Department of Agriculture Crop Report 2008.

[9] Morehead, B. 2003. Humboldt County Agriculture Survey Final Report. Humboldt County Farm Bureau, Eureka, CA.

[10] http://www.victorianferndale.com/history.htm

> State Creamery, one of the largest in the state. ('Challenge' brand dairy products are from the remaining cooperative creamery, the Humboldt Creamery in Fernbridge.)…

Although the standard of review for this consolidated coastal development permit application is the Chapter 3 policies of the Coastal Act, the local government's certified LCP may be used as guidance. The Humboldt County LCP recognizes the importance and uniqueness of agricultural land in the Eel River planning area. It states (on page 2 of Chapter 4):

> The agricultural use of this [Eel River Delta] area is unique to Humboldt County's Coastal Zone because of the relationship between seasonally inundated pastures and upland areas. During the wet season, the upland areas provide grazing areas free from both inundation and irrigation requirements. During the dry season, when the uplands would require extensive irrigation for pasturage, the seasonal wetland areas, with their high freshwater table, provide prime grazing land with minimum or no irrigation requirements. Besides the soils themselves, agriculture is dependent upon this relationship between wetlands and upland use.

In addition, the ERAP contains numerous policies requiring the protection of both prime and nonprime agricultural lands. Sections 30241 and 30242 of the Coastal Act are directly incorporated into both Sections 3.24 and 3.34 of the ERAP as development policies. Sections 3.34-A-1 and -2 of the ERAP require the protection of prime and non-prime agricultural lands outside the urban limit line (as is the case with the subject site) and specifically prohibit the division or development of agricultural lands that would "*lower the economic viability of continued agricultural operations on them.*" Section 3.34-A-3 only allows for the conversion of agricultural lands in cases where the land is non-prime and where "*the long-term economic infeasibility of continued agricultural operation is shown to exist.*…" The policy further prohibits the division or development of such lands if the viability of continued agricultural operations on adjacent agricultural lands would be lowered. Section 3.34-A-4 prohibits the division of agricultural lands to parcels less than 60 acres in size (except in limited cases subject to certain restrictions if it is determined that the division is necessary for "*a specific agricultural purpose*"). Section 3.34-B specifies various uses considered compatible with agricultural operations (e.g., fish and wildlife habitat management, farm labor housing, etc.). Section 3.34-C and 3.34-D include additional policies specific to particular regions of the Eel River planning area (not including the subject site). Section 3.34-E provides for limited exceptions to the minimum agricultural parcel size. Finally, Section 3.41-C contains a number of policies related to allowable uses in "transitional agricultural lands" (which are defined as "wetlands" under the LCP and Coastal Act definitions).

(2) RECLAMATION IN HUMBOLDT COUNTY: THE HISTORICAL ESTABLISHMENT OF AGRICULTURAL LAND THROUGH CONVERSION AND FILL OF TIDAL WETLANDS

Much agricultural land in the coastal zone of Humboldt County occurs on historic tidal marsh. Humboldt Bay supported nearly 10,000 acres of intertidal coastal marsh, and the Eel River Delta historically supported a comparable amount. Riverside Ranch is among the

more than 4,000 acres in the delta that historically was subject to tidal inundation. It is also an example of reclaimed land subsequently utilized for agricultural production.

Euro-American settlers diked and drained most of these marshes and sloughs in the delta for agricultural use beginning in the late 19th-century. Encouraged by federal land use policies, this approach enabled increased pasture and hay production on thousands of acres, many of which are still in agricultural production today.

Earthen levees were constructed along the margins of marsh plains to a height of about 3 to 4 feet above the marsh plain using locally excavated mud. The associated borrow ditches were typically located on the bayward side of the dikes, creating narrow channels. To alleviate long periods of saturated ground in reclaimed agricultural fields, underground drainage tiles were placed on a few thousand acres around Humboldt Bay. These drainage tiles were effective for only a few years before becoming plugged. Alternatively, open ditches were excavated to facilitate drainage in some areas. Tidegates were installed to enable the enclosed basins to drain at low tide.

These enclosed basins filled naturally by sedimentation, were filled actively, or both. Successful farming of these areas ensued for many years. Nevertheless, some areas proved more successful than others. As soil maps demonstrate, these diked former tideland areas are not the most productive in Humboldt County. Many were immediately compromised by poor soils. Others suffered from frequent inundation at high tides and during other unfavorable conditions. Eventually, productivity in these areas declined, and many farms and ranches in low-lying areas of former tidal marsh have been sold willingly to public entities for wildlife management purposes. Much of the Eel River National Wildlife Refuge and Department of Fish and Game properties have been so assembled.

(3) PRIME AGRICULTURAL LAND DETERMINATION

As cited above, Coastal Act Sections 30241 and 30242 require the protection of prime agricultural lands and set limits on the conversion of all agricultural lands to non-agricultural uses. Coastal Act Section 30113 defines "*prime agricultural land*" through incorporation-by-reference of paragraphs (1) through (4) of Section 51201(c) of the California Government Code:

> "*Prime agricultural land entails land with any of the follow characteristics: (1) a rating as class I or class II in the Natural Resource Conservation Service land use capability classifications; or (2) a rating 80 through 100 in the Storie Index Rating; or (3) the ability to support livestock used for the production of food and fiber with an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture; or (4) the ability to normally yield in a commercial bearing period on an annual basis not less than two hundred dollars ($200) per acre of unprocessed agricultural plant production of fruit- or nut-bearing trees, vines, bushes or crops which have a nonbearing period of less than five years.*"

The four different prongs of the definition of "prime agricultural land" relate to the value and utility of the land in terms of range of agricultural uses and productivity. The land use

capability classification rates the utility of the land based on various physical factors (e.g., rock type, soil type, slope, erosion potential, etc.). The lower the rating the more utility the land is considered to have for various agricultural uses. The Storie Index Rating is based on soil characteristics that govern the land's potential utilization and productive capacity (e.g., characteristics of the soil profile, surface texture, slope, drainage, nutrient level, acidity, alkalinity, etc.) independent of other physical or economic factors that might determine the desirability of growing certain plants in a given location. The third paragraph of the definition speaks to the number of "animal units" the land can sustain. An "animal unit" (AU) is a standardized measure of animals used for various agricultural purposes. A 1,000-pound beef cow is the standard measure of an animal unit. The dry matter forage requirement of one animal unit is 26 pounds per day. Animal unit equivalents (AUE) are calculated for various other animals. A 700-pound steer is 0.80 animal units. A 1,300-pound horse is 1.20 animal units. A 120-pound sheep is 0.20 animal units. The amount of forage used by one animal unit in a month is an "animal unit month" (AUM). Finally, the fourth prong of the definition of prime agricultural land relates to the agricultural value of the land in terms of its capacity to generate a minimum commercial revenue of $200 per acre. Land that meets any one of the four criteria in the definition is considered "prime" under the Coastal Act.

Approximately half of the 808-acre project area currently is used for agricultural purposes (primarily livestock grazing and hay production). The majority of the current agricultural land is located on Riverside Ranch (~358 acres), owned by DFG, and approximately 240 acres of current agricultural land occurs along the Phase 2 project corridor (various private property ownerships). As the Findings below explain, 52 acres of land within the project area footprint may meet the statutory definition of "prime agricultural land" in Section 51201(c) of the California Government Code.

i. AGRICULTURAL LAND WITHIN THE PHASE 1 PROJECT AREA

There are approximately 358 acres of agricultural land in the Phase 1 project area. None of it meets the statutory definition of prime agricultural land (Section 51201(c) of the California Government Code cited above).

The soils in the area are classified primarily as "Occidental, 0-2% slopes," "Swainslough, 0-2% slopes," and "Fluvents-Riverwash complex, 0-2% slopes." All of these soils have values that fall well below those required for classification as prime agricultural land. In general, the soils all have severe limitations due to water in or on the soil that interferes with plant growth and cultivation.

Due to annual flooding, none of the land is available for the entire year. Well before the acquisition of the property in 2007 by Western Rivers Conservancy (which later conveyed it to DFG), all livestock had to be removed from the premises each winter due to flooding within the Eel River Estuary. More than anywhere else in the Salt River delta, Riverside Ranch suffers from chronic flooding and long-term ponding, which is directly related to the property's position at the delta of the aggraded Salt River and the Eel River estuary.

Even the highest areas of the property suffer from prolonged ponding of water at the expense of agricultural operations. For these reasons, at Riverside Ranch:

- None of the land qualifies for rating as class I or class II in the Natural Resource Conservation Service land use capability classifications;
- None of the land qualifies for rating 80-100 in the Storie Index Rating;
- The property as a whole is incapable of supporting one animal unit per acre as defined by the United States Department of Agriculture;

In other words, the agricultural lands in the Phase 1 project area do not meet any of the first three prongs of the definition of "prime agricultural land" as cited in Section 51201(c) of the California Government Code.

Regarding the fourth prong of the definition cited above (…*the ability to normally yield in a commercial bearing period on an annual basis not less than two hundred dollars ($200) per acre of unprocessed agricultural plant production of fruit- or nut-bearing trees, vines, bushes or crops which have a nonbearing period of less than five years*), the property has demonstrated over the course of many years its incapacity to generate the minimum revenue required by paragraph (4) of Section 51201(c) of the Government Code. Prior to its acquisition in 2007 by Western Rivers Conservancy, the property ceased operating as a dairy and had shifted to low-grade hay and haylage production. For much of this time, the lease revenue for haying returns was approximately $30,000 per year in revenue (i.e., less than $67.56/acre), as averaged over the entire 440-acre property. According to the applicant, as shown in financial records for the property, the land at Riverside Ranch produced hay that sold for (depending on nutritional value) from $30/ton at its peak several years ago to $12.50/ton at its peak today. This decline is based upon the declining nutritional value of the forage and the lateness of harvest due to chronic standing water on the property (a trend that is expected to continue for the foreseeable future for all the reasons discussed in Finding IV-A above). At its peak, and on the best 35 to 50 acres of (relatively) high ground on the subject site, the property produced approximately four tons of hay per acre which sold for $30/ton. Thus, according to the applicant, in recent years the property's annual production value was $120/acre from the most productive areas of the property. It should be noted that the current value per acre of hay produced is closer to $10/ton, even in the productive higher pasture areas, and the property today generates closer to $40/acre (far less than the annual production value of past years). This is due to the significant decline in nutritional value of the hay resulting from chronic saturation and inundation. Nevertheless, even if, for some unknown reason, the crop value had a value of four times the cost of harvesting, it still would not rise to the standard required under paragraph (4) of subdivision (c) of Section 51201. Therefore, the land does not generate the minimum revenue required to qualify it as "prime agricultural land" under Section 51201(c) of the California Government Code.

In conclusion, none of the 358 acres of agricultural land within the Phase 1 project area footprint meets the statutory definition of "prime agricultural land" cited above.

ii. AGRICULTURAL LAND WITHIN THE PHASE 2 PROJECT AREA

There are approximately 240 acres of agricultural land in the Phase 2 project area. According to information contained in the Final EIR and analyses prepared by the State Coastal Conservancy (Exhibit No. 23), most of the soils in the Phase 2 project area are classified primarily as "Fluvaquents, 0-2% slopes" and "Fluvents-Riverwash complex, 0-2% slopes." Similar to the Riverside Ranch soils, these soils have severe limitations due to water in or on the soil that interferes with plant growth and cultivation and therefore have values that fall below those required for classification as prime agricultural land. However, approximately 52 acres of soils can be considered prime based on the fourth prong of the definition cited above. Although the 52 acres fall within areas along the river corridor that have significantly deteriorated in agricultural value over time due to chronic saturation and inundation, both County mapping for the area and an August 12, 2011 analysis provided by the Coastal Conservancy acknowledge that 52 acres of prime agricultural land in the Phase 2 project footprint will be converted. Further, the applicant has presented no evidence that the productivity of these lands falls below the standard of paragraph 4 (…*the ability to normally yield in a commercial bearing period on an annual basis not less than two hundred dollars ($200) per acre of unprocessed agricultural plant production of fruit- or nut-bearing trees, vines, bushes or crops which have a nonbearing period of less than five years*). Therefore, all available evidence indicates that the approximately 52 acres of agricultural land in the Phase 2 project footprint that will be converted to other habitat types for restoration purposes meets the statutory definition of "prime agricultural land" in Section 51201(c) of the California Government Code.

(4) MAINTAINING MAXIMIZED PRODUCTION OF PRIME AGRICULTURAL LAND

As cited above, Section 30241 requires that the maximum amount of prime agricultural land be maintained in agricultural production in order to maintain the agricultural economy of the area. Specifically, the policy requires (in applicable part):

- Section 30241(b) limits conversions of agricultural lands to the periphery of urban areas to the lands where the viability of existing agricultural use is already severely limited by conflicts with urban uses or where the conversion of the lands would complete a logical and viable neighborhood and contribute to the establishment of a stable limit to urban development. This section of the Act applies to situations where urban uses are already compromising the agricultural viability of adjacent agricultural lands by conflicts with urban uses such as light, noise, human activity, stormwater runoff associated with developed areas, and other similar urban use conflicts.
- Section 30241(c) permits the conversion of agricultural lands surrounded by urban uses where the conversion of the land would be consistent with Section 30250 of the Coastal Act. Section 30250(a) of the Coastal Act requires in part that new development be concentrated in and around existing developed areas with adequate development capacities. Where such areas are not available, development must be located where adequate public services exist, and where the development will not have significant adverse effects, either individually or cumulatively, on coastal

resources. Generally, public works such as water, roads, and sewer systems must be sized to serve planned development.

- Section 30241(d) requires the development of available lands not suited for agriculture prior to the conversion of agricultural lands.

The portion of the project involving the proposed conversion of 52 acres of prime agricultural lands in the Phase 2 project area constitutes a conversion of agricultural land in an area that is neither located around the periphery of urban areas nor surrounded by urban uses, and the viability of existing agricultural use at the site is not limited by conflicts with urban uses. The project area is located a mile north of the incorporated limits of Ferndale at its closest point, and most of the lands surrounding the project site are largely undeveloped and used primarily for agricultural uses or natural resources uses. In addition, there may be other areas of undeveloped land within the coastal zone around the Ferndale region that are not suitable for agriculture that have yet to be developed.

Thus, given this location relative to adjoining land uses and the cumulative loss of agricultural lands in the project vicinity, development of the restoration project on the prime agricultural lands of the site would not be consistent with the limitations on conversion of agricultural lands contained in subsections Section 30241(b), (c), and (d) and would not serve to minimize conflicts between agricultural and urban land uses.

Conclusion:

For all of the reasons stated above, the Commission finds the portion of the project involving the permanent loss of the subject 52 acres of agricultural land in the Phase 2 project area is inconsistent with the provisions of Section 30241 cited above. This project inconsistency will be further discussed below in Section IV.G, the section on conflict resolution of competing Chapter 3 policies.

(5) CONVERSION OF "ALL OTHER LANDS" SUITABLE FOR AGRICULTURAL USE

Coastal Act Section 30242 protects lands suitable for agricultural use that are not prime agricultural lands or agricultural lands on the periphery of urban areas from conversion to non-agricultural use unless continued agricultural use is not feasible, or such conversion would preserve prime agricultural land or concentrate development consistent with Section 30250. The proposed restoration project will convert approximately 273 acres of non-prime agricultural land for Phase 1 (Riverside Ranch) restoration activities. Although the land is not considered prime, cattle grazing (though limited by seasonal inundation and general pasture quality) is the primary use on the subject site, and this use is proposed to continue on 55 acres of the project site in the future. Thus, continued agricultural use of the site is feasible. Nonetheless, as explained in the Findings below, the portion of the project involving the proposed conversion of 273 acres of non-prime agricultural land to restored habitat in the Phase 1 project area is consistent with Section 30242 of the Coastal Act, because the conversion is both necessary to preserve prime agricultural land in the surrounding area and compatible with continued agricultural use on surrounding lands.

i. CONVERSION NECESSARY TO PRESERVE PRIME AGRICULTURAL LAND IN THE SURROUNDING AREA

There are several thousand acres of farmland in the Eel River Delta devoted to livestock grazing. While lower-cost, larger-scale producers in other parts of the State grow simply by adding cows to an already crowded feedlot, the pasture-based farms in Humboldt, which average about 1.5 cows per acre, don't have that luxury. Here, ranchers must continue to use their land in more innovative ways, competing with quality and product specialization as opposed to price. For forty Humboldt dairies – sixteen of them located in the Ferndale area[11] – organic milk production has become one way to take advantage of the area's pastoral setting, utilize the methods of sustainable agriculture, and ensure a commitment to producing milk free of artificial hormones. Organic milk is still a small percentage of the overall dairy market, but as a commodity it is growing at more than 20 percent a year. Current demand for organic milk far exceeds supply, with prices nearly double those for conventional milk.

According to the agricultural analysis (Exhibit No. 23), the property value of agricultural land in the Eel River Delta is high, and there is very little land available for rent or purchase. The land is owned and used by local dairies, beef producers, or held as investments by retired dairymen or their heirs. Inflation of property values has slowed in recent years, but deflation is absent. As reported in an appraisal report for property within the project footprint dated January 2011, ranchers compete strongly for any land in the delta offered for sale or rent, and land typically sells for $5,000 to $10,000 per acre. To further document this valuation, a 100-acre NRCS easement on the Vevoda property along the Salt River near Port Kenyon recently sold for approximately $10,000 per acre (although that price was applied regionally and is widely disputed as a reasonable easement value for the area).

Episodic flooding has always been common along the lowland areas of the Eel River Delta, and catastrophic (e.g., 100+ year) floods on the Eel will always occur. However, the inhabitants of Ferndale and surrounding dairies, farms, and ranches are now severely impacted by increased chronic flooding and persistent ponding. What has changed over the past 25 years is that lands that used to drain after flooding no longer do so, or do so much more slowly. According to one landowner interviewed by the applicant, in the 1955 and 1964 floods, the floodwaters subsided within three to four days on his property. Now, according to interviews with several producers throughout the project area, water persists on some pastures for up to eight months out of the year.

As relayed to the applicant by affected landowners, a series of events occurred sometime in the late 1990's that impacted the drainage and hydrology of the area. Williams Creek was rerouted at its confluence with the Salt River channel by a sediment plug. Now flows are redirected in the opposite direction (Exhibit No. 5). The loss of this significant volume of water reduced flows available to help flush sediment out through the Salt River channel. Additionally, a change in maintenance practices occurred. Prior to this time, according to

[11] 2011 California Certified Organic Farmers directory listing of organic dairies in Humboldt.

regional landowner accounts, individual landowners conducted routine maintenance to keep the channel free of vegetation and excess sediment. A change in regulations and threats of legal actions and fines deterred this type of vegetation maintenance. As the channel began to fill in, water started to flow across different properties. This inundation resulted in a myriad of individual actions to divert water and, ultimately, has completely disrupted natural drainage patterns.

Today, due to sedimentation and aggradation of the historic Salt River channel, chronic flooding and long-term ponding of floodwater is initiated seasonally in many areas with only moderate rainfall, and ponding persists much longer than before in many areas that drain via the Salt River. Average rainfall in Ferndale is approximately 44 inches per year, with most rain falling October through April. Aggradation has virtually eliminated a defined Salt River channel such that water from rain events is forced across roads and pastures, through barns, and around houses throughout the mainstem river between Reas and Williams Creeks, a distance of over four miles. At least twenty homes and a similar number of dairies have been flooded routinely for the past several years. Similarly, Francis Creek is so impacted by sediment that Port Kenyon Road acts as the channel for Francis Creek high flows and sediment loads. Port Kenyon Road, an important county thoroughfare in the area, was closed for months in 2010 until emergency-permitted work (Commission Emergency Permit No. 1-10-035-G) enabled the County to reopen the road for public safety purposes. Needless to say, the closure of Port Kenyon Road presented a costly inconvenience to dairies, ranchers, and truckers accustomed to utilizing that thoroughfare and jeopardized the homes, health, and safety of residents.

Beyond the direct impacts to the twenty residences in the immediate vicinity of the Salt River channel, the Ferndale wastewater treatment plant, and other infrastructure affected by flooding, the economic impacts of lost agricultural productivity due to flooding of this agricultural area affect Ferndale residents and Humboldt County as a whole. There is considerable documentation of flooding in the form of aerial and landowner photography spanning decades. The applicant also has collected information to document the existing impacts to the project area due to flooding and ponding (FEIR pg. 3.9-11 and Exhibit No. 23). Most of this information was collected between 2005 and the present. The applicant interviewed eleven local dairy and ranch operators in representative areas throughout the project area to understand which areas currently are affected by flooding, including extent and duration of flooding impacts. The applicant worked with interviewees to sketch areas affected by flooding on an aerial photographs, and additional areas also were mapped where RCD staff had consistently observed long-term flooding and ponding for a number of years. The outlines of flooded and ponded areas were digitized from the aerial photographs and assigned to one of two categories: (1) inundated lands, which refers to those lands directly flooded and ponded; or (2) inaccessible lands, which includes lands isolated by flooding of adjacent areas (Exhibit No. 21). The total area mapped as affected by flooding and ponding through this effort (including lands outside of the 808-acre project area footprint only) is approximately 750 acres. This acreage is considered conservative because there are additional areas in the Ferndale Bottoms affected by flooding and ponding that were not mapped because the applicant was not able to interview the landowner and had no personal knowledge of the land in question. Comparing the map of

prime agricultural land (based on County mapping of NRCS land use capability class I and II soils in the 1980s) with the applicant's map of lands that are inundated or inaccessible due to current seasonal flood conditions reveals that most of the impacted lands are considered prime under the Coastal Act definition.

The information gained through the interviews with local farmers reveals that many pastures are unusable due to flooding from October through May. Although this flooding does not occur during the growing season, producers consistently reported that inundated fields were less productive throughout the growing season. They also say that they are not able to have their cows on the fields when other producers could and that they needed to provide feed to the livestock, rather than allowing them to graze. Due to the resulting loss of forage and cropland, these operators report reducing herd sizes and/or buying supplemental feed. Estimated losses translate to approximately 80 animal units per year. Additional expense for supplemental feed, farming, reseeding flooded areas, and pumping out floodwater exceeds $88,332 annually on one farm alone (Vevoda, letter to State Water Board, 2006). The economic impacts of flooding are widespread and affect productivity and agricultural economic values throughout the project area and beyond the areas described in the interviews.

In sum, agricultural productivity in the project vicinity is adversely impacted by frequent and prolonged flooding. Flooding, soil saturation, and loss of access result in the loss of livestock grazing on approximately 750 acres of mostly prime agricultural land in the project vicinity for one to eight months each year. Not only is the land unproductive for a period of time due to flooding impacts, but also inundation further leads to a decline in forage productivity. The growth cycle of forage grasses is postponed when it is covered by water. Once a particular threshold is past, typically about two months of continuous inundation, approximately 50 percent of the pasture productivity is lost that year. Long-term inundation also necessitates the subsequent amendment and improvement of soil to restore its original level of productivity. Farmland on Riverside Ranch and adjacent to the Salt River, some of which will be restored to wetland, riparian, and aquatic habitats by the project, is severely affected by flooding and frequently can only be grazed between five and nine months per year.

Project implementation is expected to significantly reduce flooding duration on approximately 750 acres of mostly prime agricultural land in and around the project area, thereby greatly enhancing its productivity. Implementation of the proposed project will alleviate chronic and economically damaging flooding while restoring and enhancing fish and wildlife habitat lost due to the ongoing aggradation of the historic Salt River channel. Flood alleviation will be achieved by converting 273 acres of non-prime, low-productivity agricultural land on the lower Salt River (Riverside Ranch) to a 300+-acre restored estuarine channel and marsh complex. This estuarine channel and marsh restoration in turn will provide the scour necessary to maintain the constructed channel geometry at the lower end of the project area. Extensive modeling by the consulting hydrologist (Kamman Hydrology) has shown that the increase in the tidal prism gained by expanding tidal areas at Riverside Ranch will help to preserve and maintain channel geometry and project performance in the long-term, thereby maintaining channel function and performance

while reducing long-term maintenance costs.[12] The increase in sediment transport through the river system upstream will prevent problematic aggradation and subsequent flooding of prime agricultural lands in the immediate vicinity (Exhibit No. 22). A key attribute of the proposed project is that the duration of flooding and ponding will be significantly shortened on approximately 750 acres of mostly prime agricultural land in the project vicinity from months back to days or weeks. In other words, the proposed project provides the duel benefits of increasing drainage capacity in a hydraulically dysfunctional area while also providing substantial habitat improvements and enhancements to agricultural productivity in the surrounding area.

This finding that the proposed conversion of 273 acres of non-prime agricultural land is consistent with Section 30241 (because it will preserve prime agricultural land) is based in part on the assumption that the proposed project will be successful in reducing flooding upon (and thereby preserving) prime agricultural land within and adjacent to the project site. The applicant has proposed measures to ensure that the anticipated agricultural benefits to the existing prime agricultural lands on the project site are indeed realized as intended. The applicant has proposed to implement an Agricultural Enhancement Monitoring Program (AEMP) to assess the flood alleviation improvements to surrounding agricultural land resulting from project implementation. The AEMP proposes to use declining levels of inundation as a proxy for enhanced agricultural productivity, since inundation and ponding have demonstrably adverse impacts on agricultural productivity, as discussed above. Each year for five years after completion of the restoration improvements, the applicant would determine qualitatively the approximate area of inundation and ponding in the project area and surrounding agricultural lands. The applicant considers "ponding" to mean an area lacking full or partial drainage. Ponded areas would be recorded with a GPS unit to establish the boundaries of the inundated areas. The extent of ponding would be compared to existing documentation of ponding (e.g., Exhibit No. 21) to determine if and where the project has resulted in drainage improvements. The applicant has not proposed any remedial action measures in the event that drainage improvements are not realized.

To ensure that the agricultural productivity of prime agricultural lands within and adjacent to the site is preserved and improved with implementation of the approved project, the Commission attaches **Special Condition No. 17**. The special condition requires submittal of a final revised Agricultural Enhancement Monitoring Plan for the review and approval of the Executive Director, which demonstrates that agricultural productivity on the existing prime agricultural lands within and around the project area footprint will be increased by 4,270 Animal Unit Months per year (or an equivalent agricultural productivity value, as calculated in Table 9 below) within five years of completion of Phase 2 construction. This standard will ensure that the agricultural productivity of prime agricultural lands within and adjacent to the site results in an overall net gain by implementation of the approved

[12] As cited in the Salt River Watershed Local Implementation Plan, (NRCS/SCS, March 1993); "The threat to navigation posed by sedimentation in Salt River was recognized as early as 1898 when a lawsuit was filed after Z. Russ and Sons Company placed four dams on sloughs tributary to the Salt River. The plaintiff charged, and the California Supreme Court concurred, that the resulting loss of tidal prism would ultimately cause the '…said Salt River and said Eel River (to) … become filled up with debris and sediment…' ".

project. Special Condition No. 17 also requires that the final AEMP provides for remediation measures if this increase in productivity is not achieved. The remediation measures must provide that the permittee shall submit an application for an amendment to this CDP proposing revisions to the project that would achieve the required increase in agricultural productivity on the existing prime agricultural lands.

Therefore, the Commission concludes that as conditioned, the portion of the project involving the conversion of 273 acres of non-prime agricultural land in the Phase 1 project area is necessary to preserve prime agricultural land in the surrounding area and thus is permissible under Section 30242 of the Coastal Act.

ii. CONVERSION COMPATIBLE WITH CONTINUED AGRICULTURAL USE ON SURROUNDING LANDS

The Commission must next consider whether or not the conversion of 273 acres of non-prime agricultural land is compatible with continued agricultural use on surrounding lands. The agricultural analysis discussed above (Exhibit No. 23) assessed agricultural productivity in the area based on pasture productivity, animal units, milk production, and milk sales. The analyses conclude that while the necessary 273-acre conversion of agricultural land will result in the loss of approximately 1,776 Animal Unit Months (AUMs) per year, the project is expected to protect and enhance at least 750 acres of prime agricultural land in the surrounding area, which translates to an increase of approximately 4,270 AUMs per year, for an overall net gain of 1,972 AUMs per year (Table 9).

Table 9. Anticipated changes in agricultural productivity and revenue due to implementation of the proposed project (from Exhibit No. 23).

Area	Productivity (lbs of dry matter/acre /month)	Change in Produc-tive Acreage	Change in Annual Dry Matter Production (lbs of dry matter/yr)	Change in AUMs*	Change in Annual Milk Production (lbs/yr)**	Change in Annual Milk Sales (dollars/ year)***	Conversion Consistent with Coastal Act Sections 30241 & 30242?
Phase 1 Project Area	457	-273	-1,497,132	-1,776	-1,926,914	($539,536)	Yes
Phase 2 Project Area	705	-52	-439,920	-522	-566,208	($158,538)	No
Surrounding Vicinity	800	375 †	+3,600,000	+4,270	+4,633,452	$1,297,367	N/A
Overall Area			**+1,662,948**	**+1,972**	**+2,140,330**	**$599,293**	

***** Assumes 843 lbs of dry matter is equivalent to one Animal Unit Month (AUM), based on the University of Wisconsin pasture forage intake calculator for dairy cows assuming average production rate of 35 lbs of milk/day with a milk fat percentage of 3.7 and an average cow weight of 1,000 lbs.

****** Assumes average production rate of 35 lbs/cow/day.

******* Assumes price of organic milk is $28/cwt (hundredweight).

† Assumes a 50% increase in productivity on 750 acres of agricultural land in the project vicinity that is significantly affected by flooding.

As discussed above, to ensure that the agricultural productivity of prime agricultural lands within and adjacent to the site is preserved and improved with implementation of the approved project, the Commission imposes **Special Condition No. 17**. This condition requires submittal of a final revised Agricultural Enhancement Monitoring Plan for the review and approval of the Executive Director, which demonstrates that agricultural productivity on the existing prime agricultural lands within and around the project area footprint will be increased by 4,270 Animal Unit Months per year (or an equivalent agricultural productivity value) within five years of completion of Phase 2 construction.

As discussed above and in the agricultural analysis prepared for the project, the agricultural viability of the region deteriorates each year due to continuing aggradation and increased ponding of water within and outside of the project footprint. The economic viability and social fabric of the region's agricultural economy have been severely strained by these conditions. The proposed project will reverse this trend by converting those areas least capable of providing relatively high levels of agricultural productivity, and improving agricultural productivity in the surrounding areas. By reducing the frequency and duration of flooding on land adjacent to and nearby the project footprint, the proposed project will increase the area's capacity to support livestock, reduce flooding risk to homes and infrastructure, improve water quality, and ensure the County's ability to maintain its road system for domestic, commercial, and public safety purposes. Moreover, protection of agricultural lands from chronic flooding will enable operators to invest more reliably and protect investments in such things as fences, barns, dairy waste tanks, and other costly items that are designed to achieve energy savings, increase operational efficiency, and improve water quality. Reducing flooding by restoring historic habitats and improving drainage also will reduce economic impacts to producers from annual pumping, farming and seeding, decrease emission of greenhouse gases such as methane, and reduce energy consumption in the region. Thus, the proposed project will protect and restore the agricultural productivity of the area and protect and enhance the area's agricultural economy.

Therefore, as conditioned, the Commission finds that the proposed conversion of 273 acres of non-prime agricultural land is compatible with continued agricultural use on surrounding lands.

(6) CONCLUSION

In summary, the Commission finds that the conversion of 273 acres of non-prime agricultural land on Riverside Ranch is consistent with Section 30242 of the Coastal Act, because it is necessary to preserve prime agricultural land, and the conversion is compatible with continued agricultural use on surrounding lands. The Commission further finds that the conversion of 52 acres of prime agricultural land along the Salt River channel corridor is not consistent with Section 30241 of the Coastal Act.

G. CONFLICT RESOLUTION

As noted above, the proposed restoration project would convert 52 acres of prime agricultural land in the Phase 2 project area to restored habitats inconsistent with the provisions of Section 30241. However, as also noted above, to not approve the project would result in a failure to restore marine resources and the biological productivity of coastal wetlands and waters necessary to maintain healthy populations of marine organisms inconsistent with the mandates of Sections 30230 and 30231 of the Coastal Act. Sections 30230 and Section 30231 mandate that the biological productivity of coastal waters appropriate to maintain healthy optimum populations of marine organisms shall be maintained.

(1) THE IDENTIFICATION OF A TRUE CONFLICT IS NORMALLY A CONDITION PRECEDENT TO INVOKING A BALANCING APPROACH

As is indicated above, the standard of review for the Commission's decision whether to approve a coastal development permit in the Commission's retained jurisdiction is whether the project as proposed is consistent with the Chapter 3 policies of the Coastal Act. In general, a proposal must be consistent with all relevant policies in order to be approved. Put differently, consistency with each individual policy is a necessary condition for approval of a proposal. Thus, if a proposal is inconsistent with one or more policies, it must normally be denied (or conditioned to make it consistent with all relevant policies).

However, the Legislature also recognized that conflicts can occur among those policies (Coastal Act Section 30007.5). It therefore declared that when the Commission identifies a conflict among the policies in Chapter 3, such conflicts are to be resolved "*in a manner which on balance is the most protective of significant coastal resources* [Coastal Act Sections 30007.5 and 30200(b)]." That approach is generally referred to as the "balancing approach to conflict resolution." Balancing allows the Commission to approve proposals that conflict with one or more Chapter 3 policies, based on a conflict among the Chapter 3 policies as applied to the proposal before the Commission. Thus, the first step in invoking the balancing approach is to identify a conflict among the Chapter 3 policies.

(2) IDENTIFICATION OF A CONFLICT

For the Commission to use the balancing approach to conflict resolution, it must establish that a project presents a substantial conflict between two statutory directives contained in Chapter 3 of the Coastal Act. The fact that a proposed project is consistent with one policy of Chapter 3 and inconsistent with another policy does not necessarily result in a conflict. Virtually every project will be consistent with some Chapter 3 policy. This is clear from the fact that many of the Chapter 3 policies prohibit specific types of development. For example, section 30211 states that development "*shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization . . .*," and subdivision (2) of section 30253 states that new development "*shall . . . neither create nor contribute significantly to erosion . . . or in any way require the construction of protective devices . . . .*" Almost no project would violate every such prohibition. A project does not present a conflict between two statutory directives simply because it violates some prohibitions and not others.

In order to identify a conflict, the Commission must find that although approval of a project would be inconsistent with a Chapter 3 policy, the denial of the project based on that inconsistency would result in coastal zone effects that are inconsistent with some other Chapter 3 policy. In most cases, denial of a proposal will not lead to any coastal zone effects at all. Instead, it will simply maintain the *status quo*. The reason that denial of a project can result in coastal zone effects that are inconsistent with a Chapter 3 policy is that some of the Chapter 3 policies, rather than prohibiting a certain type of development, affirmatively mandate the protection and enhancement of coastal resources, such as sections 30210 ("*maximum access . . . and recreational opportunities shall be provided . . .*"), 30220 ("*Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses*"), and 30230 ("*Marine resources shall be maintained,* [and] *enhanced…*"). If there is ongoing degradation of one of these resources, and a proposed project would cause the cessation of that degradation, then denial would result in coastal zone effects (in the form of the continuation of the degradation) inconsistent with the applicable policy. Thus, the only way that denial of a project can have impacts inconsistent with a Chapter 3 policy, and therefore the only way that a true conflict can exist, is if: (1) the project will stop some ongoing resource degradation, and (2) there is a Chapter 3 policy requiring the Commission to protect and/or enhance the resource being degraded. Only then is the denial option rendered problematic because of its failure to fulfill the Commission's protective mandate.

With respect to the second of those two requirements though, there are relatively few policies within Chapter 3 that include such an affirmative mandate to enhance a coastal resource. Moreover, because the Commission's role is generally a reactive one, responding to proposed development rather than affirmatively seeking out ways to protect resources, even policies that are phrased as affirmative mandates to protect resources more often function as prohibitions. For example, Section 30240's requirement that environmentally sensitive habitat areas "*shall be protected against any significant disruption of habitat values*" generally functions as a prohibition against allowing such disruptive development, and its statement that "*only uses dependent on those resources shall be allowed within those areas*" is a prohibition against allowing non-resource-dependent uses within these areas. Similarly, Section 30251's requirement to protect "*scenic and visual qualities of coastal areas*" generally functions as a prohibition against allowing development that would degrade those qualities. Section 30253 begins by stating that new development shall minimize risks to life and property in certain areas, but that usually requires the Commission to condition projects to ensure that they are not unsafe. Even Section 30220, listed above as an affirmative mandate, can be seen more as a prohibition against allowing non-water-oriented recreational uses (or water-oriented recreational uses that could be provided at inland water areas) in coastal areas suited for such activities. Denial of a project cannot result in a coastal zone effect that is inconsistent with a prohibition on a certain type of development. As a result, there are few policies that can serve as a basis for a conflict.

Similarly, denial of a project is not inconsistent with Chapter 3, and thus does not present a conflict, simply because the project would be less inconsistent with a Chapter 3 policy than some alternative project would be, even if approval of the proposed project would be the only way in which the Commission could prevent the more inconsistent alternative from occurring. For denial of a project to be inconsistent with a Chapter 3 policy, the project must produce tangible, necessary enhancements in resource values over existing conditions, not over the conditions that would be created by a hypothetical alternative. In addition, the project must be fully consistent with the Chapter 3 policy requiring resource enhancement, not simply less inconsistent with that policy than the hypothetical alternative project would be. If the Commission were to interpret the conflict resolution provisions otherwise, then any proposal, no matter how inconsistent with Chapter 3, which offered even the smallest, incremental improvement over a hypothetical alternative project, would necessarily result in a conflict that would justify a balancing approach. The Commission concludes that the conflict resolution provisions were not intended to apply based on an analysis of different potential levels of compliance with individual policies or to balance a proposed project against a hypothetical alternative.

In addition, if a project is inconsistent with at least one Chapter 3 policy, and the essence of that project does not result in the cessation of ongoing degradation of a resource the Commission is charged with enhancing, the project proponent cannot "create a conflict" by adding on an essentially independent component that does remedy ongoing resource degradation or enhance some resource. The benefits of a project must be inherent in the essential nature of the project. If the rule were to be otherwise, project proponents could regularly "create conflicts" and then demand balancing of harms and benefits simply by offering unrelated "carrots" in association with otherwise unapprovable projects. The balancing provisions of the Coastal Act could not have been intended to foster such an artificial and manipulatable process. The balancing provisions were not designed as an invitation to enter into a bartering game in which project proponents offer amenities in exchange for approval of their projects.

Finally, a project does not present a conflict among Chapter 3 policies if there is at least one feasible alternative that would accomplish the essential purpose of the project without violating any Chapter 3 policy. Thus, an alternatives analysis is a condition precedent to invocation of the balancing approach. If there are alternatives available that are consistent with all of the relevant Chapter 3 policies, then the proposed project does not create a true conflict among Chapter 3 policies.

In sum, in order to invoke the balancing approach to conflict resolution, the Commission must conclude all of the following with respect to the proposed project before it: (1) approval of the project would be inconsistent with at least one of the policies listed in Chapter 3; (2) denial of the project would result in coastal zone effects that are inconsistent with at least one other policy listed in Chapter 3, by allowing continuing degradation of a resource the Commission is charged with protecting and/or enhancing; (3) the project results in tangible, necessary resource enhancement over the current state, rather than an improvement over some hypothetical alternative project; (4) the project is fully consistent with the resource enhancement mandate that requires the sort of benefits that the project

provides; (5) the benefits of the project are a function of the very essence of the project, rather than an ancillary component appended to the project description in order to "create a conflict; " and (6) there are no feasible alternatives that would achieve the objectives of the project without violating any Chapter 3 policies.

An example of a project that presented such a conflict is a project approved by the Commission in 1999 involving the placement of fill in a wetland in order to construct a barn atop the fill and the installation of water pollution control facilities on a dairy farm in Humboldt County (CDP #1-98-103, O'Neil). In that case, one of the main objectives of the project was to create a more protective refuge for cows during the rainy season. However, another primary objective was to improve water quality by enabling the better management of cow waste. The existing, ongoing use of the site was degrading water quality, and the barn enabled consolidation and containment of manure, thus providing the first of the four necessary components of an effective waste management system. Although the project was inconsistent with Section 30233, which limits allowable fill of wetlands to seven enumerated purposes, the project also enabled the cessation of ongoing resource degradation. The project was fully consistent with Section 30231's mandate to maintain and restore coastal water quality and offered to tangibly enhance water quality over existing conditions, not just some hypothetical alternative. Thus, denial would have resulted in impacts that would have been inconsistent with Section 30231's mandate for improved water quality. Moreover, it was the very essence of the project, not an ancillary amenity offered as a trade-off, that was both inconsistent with certain Chapter 3 policies and yet also provided benefits. Finally, there were no alternatives identified that were both feasible and less environmentally damaging.

(3) THE PROPOSED PROJECT PRESENTS A CONFLICT

The Commission finds that the proposed project presents a true conflict between Chapter 3 policies of the Coastal Act. The proposed restoration of habitats for the benefit of juvenile salmonids and tidewater gobies, among other marine resources, would convert agricultural land in a manner inconsistent with the provisions of Section 30241 of the Coastal Act. However, to not approve the project would result in a failure to maintain and enhance marine resources and the biological productivity of coastal waters necessary to maintain healthy populations of marine organisms that would be inconsistent with the mandates of Sections 30230 and 30231 of the Coastal Act.

As discussed above in Finding IV.A.(3), in the 1880's, extensive salt marsh, mudflats, and riparian forest habitats were documented throughout the Eel River Delta, including the lower Salt River, which at that time had four anadromous freshwater tributaries, seven smaller drainages and several significant estuarine tributaries. The Salt River historically functioned as a migration corridor for adult salmonids reaching spawning habitat in tributaries within the Wildcat Mountains and provided rearing habitat for juveniles migrating downstream to the Eel River estuary. By the 1940's, much of the project area was devoid of historic vegetation due to past and ongoing farming practices in the region, and today only severely limited habitat for anadromous salmonids can be found in Francis and Russ Creek, while salmonid access to Williams and Coffee Creeks has been

completely eliminated. The reduction in historic estuarine and riparian habitats is directly correlated with the increase of agricultural land in the delta. In addition, the removal of colonizing riparian vegetation by landowners in an effort to keep the river channel free from debris and sediment accumulation was routine. The proposed restoration work will provide extensive benefits to marine resources such as sensitive fish and estuarine plant species, and it will provide needed "critical habitat" for federal- and state-listed fish species, including coho, Chinook, steelhead, and tidewater goby. The proposed project will improve or reconnect access to approximately 15 miles of salmonid spawning habitat in Reas, Francis, and Williams Creeks, improve over 7.5 miles of riverine habitat with multiple fish habitat features such as alcoves and instream structures, increase the availability of necessary transition habitat for juvenile salmonids by 264 acres, increase eelgrass habitat by 8.7 acres, and create up to 11 acres and 12,500 linear feet of suitable habitat for tidewater gobies. Finally, the proposed work will greatly improve water quality, to the benefit of fish and other aquatic resources, by restoring the sediment transport capacity of the Salt River, lower Francis Creek, and Eastside Drainage. In sum, the proposed restoration of historic estuarine habitats, historic salmonid habitats, tidewater goby habitat, historic freshwater habitats, and historic connectivity between habitats at the transition between tidal and non-tidal lands will result in the reestablishment of landscape-integrated ecological processes associated with the various wetland, riverine, and estuarine habitats that historically existed in the area.

Although the proposed project is inconsistent with the requirements of Section 30241 that protect productive agricultural land and limit the conversion of agricultural land, denial would preclude achieving Section 30230's and 30231's mandates for protection and maintenance of marine resources and the biological productivity of coastal waters appropriate to maintain optimum populations of all species of marine organisms and protect human health. In addition, it is the very essence of the project, not an ancillary amenity offered as a trade-off, that is both inconsistent with certain Chapter 3 policies and yet also provides benefits. Finally, as discussed below, there are no alternatives identified that are both feasible and less environmentally damaging.

i. ALTERNATIVES ANALYSIS

As noted above, a true conflict among Chapter 3 policies would not exist if there are feasible alternatives available that are consistent with all of the relevant Chapter 3 policies. Alternatives that have been identified that conceivably could accomplish the essential purposes of the project (i.e., habitat restoration, water quality improvement, and flood alleviation) include (a) the construction of sediment detention basins, (b) the removal of Salt River tide gates; (c) alternative configurations of project features, and (d) the "no project" alternative. These various alternatives are discussed below.

(a) SEDIMENT DETENTION BASINS

An alternative to the proposed project – one that would be highly effective at capturing sediment originating from the Wildcat Hills tributaries – would be to implement the proposed channel restoration work combined with constructing a series of sediment basins

to reduce the amount of sediment entering the Salt River. Based on a study completed by the Natural Resources Conservation Service (Soil Conservation Service) in the 1990's, basins would be located on Reas Creek (100 feet upstream of Meridian Road), Francis Creek (100 feet upstream of the Port Kenyon Culvert), and Williams Creek (100 feet upstream of the Salt River confluence). The NRCS alternative also included construction of a dam on Williams Creek one mile upstream of Grizzly Bluff Road (outside of the coastal zone). A related alternative involving the use of instream sediment detention basins and side channel and floodplain elements to promote deposition was developed more recently by the Salt River technical advisory group. The instream sediment detention basin could be designed to provide juvenile and adult salmonid passage.

These sediment detention basin alternatives would achieve the objective of efficiently capturing sediment and curtailing further flooding and water quality problems in the Salt River. However, construction of the basins would result in the conversion of significant acreages of agricultural lands (inconsistent with Coastal Act Sections 30241 and 30242) and seasonal wetlands (involving diking, dredging, or filling for a use not specified in Section 30233 of the Coastal Act). In addition, sediment detention basins would require frequent maintenance, including, in the case of the instream sediment detention basin alternative, regular channel dewatering and fish relocation. Furthermore, obtaining site control for the necessary project features (all on various private lands) would be difficult and prohibitively expensive. Moreover, these alternatives do not include any of the estuarine habitat restoration benefits included in the proposed project, so there would be no restoration of 300 acres of tidal habitats, no restored transitional habitat for juvenile salmonids, no restored tidewater goby habitat, and no restored eelgrass habitat.

Therefore, implementing this alternative is not a less environmentally damaging feasible alternative that is consistent with all relevant Chapter 3 policies.

(b) REMOVAL OF SALT RIVER TIDE GATES

An option outlined in the Salt River Local Implementation Plan (NRCS 1993) was to remove the six operational tide gates in the Salt River (on Riverside Ranch, Cutoff Slough, and Smith Creek) both to restore tidal action to the areas (mostly grazed seasonal wetlands/diked former tidelands) behind the tide gates (on The Wildlands Conservancy property, Riverside Ranch, and various privately owned agricultural lands in the area) and to increase channel scour downstream of the existing tide gates. Tide gates are barriers to fish migration, they impact water quality (temperature, nutrient concentration, turbidity, dissolved oxygen, and pH), and they change the composition and abundance of aquatic plants (which can impede channel flow). Thus, their complete removal would achieve many of the fish and estuarine habitat restoration goals of the proposed project. However, this alternative would result in far less channel scour in reaches upstream of the existing tide gates (i.e., upstream of Smith Creek). Furthermore, this alternative would not result in decreased sedimentation upstream of Smith Creek. Thus, this alternative would not alleviate flooding or improve water quality to any significant degree along the mainstem of the Salt River, including the five miles of river between Reas and Williams Creeks. Moreover, this alternative would result in the conversion of significant acreages of prime

and non-prime agricultural land (throughout the areas behind tide gates as well as on adjacent agricultural properties), inconsistent with Sections 30241 and 30242 of the Coastal Act. Therefore, implementing this alternative is not a less environmentally damaging feasible alternative that is consistent with all relevant Chapter 3 policies.

(c) ALTERNATIVE CONFIGURATIONS OF PROJECT FEATURES

Feasible restoration of the site is not dependent on the exact site plan or configuration of river channel, estuary, and riparian restoration proposed by the applicant. Other configurations of these features could be successful at reestablishing ecological processes, functions, and biotic/abiotic linkages that lead to a persistent, resilient system integrated within its landscape consistent with the definition of restoration for which diking, dredging, and filling is allowed pursuant to Section 30233 of the Coastal Act and for which Sections 30230 and 30231 mandate to occur. Various examples include:

- Alternative configuration 1: This alternative would minimize channel disturbance by restoring 2.6 miles of the Salt River between Smith Creek and Francis Creek only. The channel design for this option would be based on existing flow conditions (diversion of the upper portion of the Salt River), and it is assumed that additional excavation wuold be needed if and when Williams Creek is reconnected to the Salt River. The channel would have an average depth of five feet and width of 20 feet, resulting in a total of approximately 51,500 cubic yards of excavated sediments. A 12- to 15-foot-wide band of vegetation would need to be removed on one side of the channel to allow small mechanized equipment to access the channel. Approximately 16 acres of riparian habitat would be disturbed. Six acres of existing riparian vegetation would be converted to a mix of open water, permanent fresh and brackish wetland, and forested riparian habitat.

- Alternative configuration 2: This alternative includes designs to maximize fish passage and sediment transport under low-flow conditions. The channel design for this option would be based on existing flow conditions (diversion of the upper portion of the Salt River), and it is assumed that additional excavation would be needed if and when Williams Creek is reconnected to the Salt River. Channel excavation would occur along 4.2 miles of the lower Salt River, starting 1,300 feet upstream of Port Kenyon Road and extending downstream to Cutoff Slough. The channel would include a low-flow channel within an inset floodplain. The low-flow channel would have an average depth of three feet, which would contain a two-year storm flow event. The inset floodplain would be 60- to 100-feet-wide and would receive flows under moderate and high-flow conditions. A total of approximately 260,000 cubic yards of sediment would be removed to create the channel and floodplain. Approximately 40 acres of existing riparian habitat would be converted to a mix of open water, permanent fresh and brackish wetland, and forested riparian habitat.

- Alternative configuration 3: This alternative represents the most amount of disturbance to the existing stream and riparian corridor. The channel design for this

option is based on historic channel conditions and would aim to recreate a slough-type channel in the lower Salt River extending up to the wastewater treatment plant (near the confluence of Francis Creek). Channel excavation would occur along three miles of the lower Salt River from the Smith Creek to Francis Creek. The channel would have an average width of 300 feet and an average depth of 15 feet. A total of approximately 2.6 million cubic yards of sediment would be removed to create the channel. Riparian areas and pastures adjacent to the existing channel would be converted to approximate historic vegetation conditions. Approximately 109 acres of existing riparian habitat would be converted to a mix of open water, permanent fresh and brackish wetland, and forested riparian habitat.

All of the alternative project configurations listed above would achieve varying degrees of restoration benefits similar to those achieved by the proposed project. However, none of them would avoid the conversion of agricultural lands in a manner inconsistent with Sections 30241 and 30242 of the Coastal Act, since virtually the entire lower Salt River basin consists of agricultural lands that have been created by diking, draining, filling, and channelizing historic estuarine habitats. As (1) most of the larger 808-acre project area except for the river and creek channels is used agriculturally, (2) the use of any portion of these areas for restoration of tidal habitat would preclude agricultural use and convert agricultural land, and (3) simply reducing the size of the restoration project by eliminating the tidal estuarine restoration component of the project would not restore the biological productivity of the Salt River system in a manner that would maintain optimum populations of salmonids, tidewater goby, and other marine resources, no alternative configuration of the project site would avoid conversion of agricultural land inconsistent with Section 30241 (and possibly 30242) of the Coastal Act and still achieve Section 30230's and 30231's mandates for protection and maintenance of marine resources and the biological productivity of coastal waters appropriate to maintain optimum populations of all species of marine organisms and to protect human health. Therefore, implementation of alternative configurations of the restoration project are not less environmentally damaging feasible alternatives that are consistent with all Chapter 3 policies.

(d) "NO PROJECT" ALTERNATIVE

The "no project" alternative would maintain the *status quo* of the lower Salt River ecosystem in its current degraded, dysfunctional condition with no comprehensive restorative actions to improve and restore its hydraulic and ecosystem functions. Although the "no project" alternative would avoid the conversion of 52 acres of prime agricultural land, such non-action would fail to maintain and enhance marine resources and the biological productivity of coastal waters appropriate to maintain optimum populations of marine organisms and to protect human health, as is mandated by the requirements of Coastal Act Section 30230 and 30231. Water quality would continue to be impaired (with excess sediments, high nutrient levels, high temperature, and turbidity), over 15 miles of tributary waters would continue to be inaccessible to salmon, and there would be no restoration of habitats for tidewater gobies, eelgrass, and estuarine resources such as juvenile salmonids and tidal marsh rare plant species. The "no project" alternative would not address the issues of the continued degradation of marine resources, water quality,

agricultural productivity, and flood hazard mitigation. Therefore, the "no project" alternative is not a less environmentally damaging feasible alternative that is consistent with all Chapter 3 policies.

Conclusion

As discussed above, none of the identified alternatives to the proposed project would be both feasible and consistent with all relevant Chapter 3 policies.

(4) CONFLICT RESOLUTION

After establishing a conflict among Coastal Act policies, Section 30007.5 requires the Commission to resolve the conflict in a manner that is on balance most protective of coastal resources. In this case, the Commission finds that the impacts on coastal resources from not constructing the project would be more significant than the project's agricultural conversion impacts. Denying the project because of its inconsistency with Section 30241 would avoid the conversion of 52 acres of agricultural land. However, as the proposed habitat restoration and enhancement components will maintain and enhance marine resources and the biological productivity of coastal waters appropriate to maintain optimum populations of all species of marine organisms and protect human health, the proposed improvements are mandated by the requirements of Sections 30230 and 30231.

Approving the development will restore habitats (including juvenile salmonid rearing habitat, tidewater goby habitat, marine riparian habitat, and salt marsh habitat for rare plants) in the Eel River Delta that have been tremendously reduced over the past century, consistent with Sections 30230 and 30231. The proposed restoration project will maintain and enhance marine resources including sensitive fish species, eelgrass beds, waterfowl and other water-associated wildlife, numerous bird species, native salt and brackish marsh plant species, and various other species and habitats. Scientific research has shown that juvenile salmonids utilize the estuary ecotone while adapting from freshwater to saltwater conditions, as the estuary provides a rich foraging environment that can provide a last opportunity for growth prior to ocean migration. The proposed newly restored estuary on Riverside Ranch and the lower Salt River will provide necessary rearing habitat for salmonids, tidewater goby, and other marine resources. Aside from assisting with the recovery of listed marine fish species including coho salmon, Chinook salmon, steelhead, and tidewater goby, the proposed enhancements are also needed to help restore habitat diversity within the delta that has been lost over the past century or more. Importantly, the proposed restoration project will help to alleviate flooding in the surrounding region for the benefit of human health and safety and for the benefit of agricultural resources. As discussed above in Finding IV.A, the hydrologically impaired condition of the Salt River channel leads to regular and sustained flooding in the surrounding region and significant water quality problems. High quantities of nutrients from surrounding agricultural land present water quality problems in the mainstem of the river as well as in the estuary. Fish spawning habitat in the river basin and lower tributaries is inadequate due to excess fine sediments. Other factors that influence salmonid habitat such as water temperature, water chemistry, and turbidity also are adversely affected by the hydrologic impairment of the

river. Significantly for the City of Ferndale, sedimentation and flow volume reduction in the Salt River have reduced channel capacity and the receiving water flows to the point that the effluent from the City's wastewater treatment plant, located near the confluence of the Salt River and Francis Creek, violates water quality standards. The proposed restoration project will alleviate flooding and improve water quality while at the same time benefiting marine resources by (1) restoring hydraulic capacity and expanding the tidal prism to improve water quality and drainage efficiency across the floodplain; (2) restoring historic estuarine habitat and tidal connectivity within the lower Salt River, including increasing the availability of necessary transition habitat for juvenile salmonids by 264 acres; (3) increasing suitable habitat for eelgrass by 8.7 acres; (4) creating up to 11 acres and 12,500 linear feet of suitable habitat for tidewater gobies; (5) improving over 7.5 miles of riverine channel habitat with multiple fish habitat features in the Salt River and lower Francis Creek; and (6) reconnecting access to approximately 15 miles of salmonid spawning habitat in Reas, Francis, and Williams Creeks.

Therefore, the Commission finds that the proposed restoration, which would maintain and enhance marine resources necessary to maintain the biological productivity of existing degraded wetlands and waters, maintain optimum populations of all species of marine organisms, and protect human health, would be more protective of coastal resources than the impacts of the conversion of 52 acres of agricultural land.

As discussed above in Finding IV.C, to ensure that the maintenance and enhancement of marine resources and the biological productivity of coastal waters that would enable the Commission to use the balancing provision of Section 30007.5 is achieved, the Commission attaches Special Condition Nos. 2 through 16. These conditions require that the applicant submit various final plans, including a final habitat monitoring and reporting plan, final SWPPPs, final construction plans, debris disposal plans, a sensitive bird nesting habitat protection plan, a final rare plant mitigation and monitoring plan, final sediment reuse plans, a final adaptive management plan, and annual maintenance/adaptive management operations plans. Additionally, Special Condition No. 3 requires that the applicant carry out the project in accordance with various construction protocols to ensure the protection of coastal waters and wetlands, Special Condition No. 7 requires various measures to protect sensitive fish and aquatic resources, Special Condition No. 8 requires the permittee to monitoring and if necessary to control for nonnative Sacramento pikeminnow in the restored aquatic habitats, Special Condition No. 9 places certain restrictions on riparian vegetation removal, Special Condition No. 12 requires revegetation of the site to be carried out according to specified standards and limitations, and Special Condition No. 15 limits the length of development authorization for ongoing maintenance and adaptive management activities. The Commission finds that without Special Condition Nos. 2 through 16, the proposed project could not be approved pursuant to Section 30007.5 of the Coastal Act.

(5) MITIGATION FOR AGRICULTURAL IMPACTS

As stated above, the conflict resolution provisions of the Coastal Act require that the conflict be resolved in a manner that on balance is the most protective of significant coastal

resources. To meet this test, in past actions where the Commission has invoked the balancing provisions of the Coastal Act, the Commission has found it necessary to mitigate adverse impacts on coastal agricultural resources to the maximum extent feasible.

The proposed project will result in the permanent conversion of 52 acres of prime agricultural land for a purpose that is not consistent with Section 30241 of the Coastal Act. As discussed above, the Commission finds that the conversion of 273 acres of non-prime agricultural land at Riverside Ranch for the purpose of preserving 750 acres of prime agricultural land elsewhere at the project site is consistent with Section 30242 of the Coastal Act. Thus, only the loss of the 52 acres of prime agricultural land for a purpose not consistent with Section 30241 of the Coastal Act need be considered in determining whether the conflict between the habitat restoration mandates of Sections 30230 and 30231 and the limitations on agricultural land conversions of Section 30241 is being resolved in a manner that on balance is the most protective of significant coastal resources.

The conversion of 52 acres of prime agricultural land to restored habitat translates to a loss of 522 AUMs per year. However, the applicant asserts that the project will preserve and enhance at least 750 acres of mostly prime agricultural land in the coastal zone, which equates to an increase of approximately 4,270 AUMs per year, for a net gain of 1,972 AUMs per year resulting from project implementation. This purported agricultural benefit of the project translates to a change in acre equivalents of +246.6 acres of agricultural land (assuming an average stocking rate for the region of one AUM per 1.5 acres).

As discussed previously, the applicant has proposed measures to ensure that the anticipated agricultural benefits to the existing prime agricultural lands on the project site are indeed realized as intended. The applicant has proposed to implement an Agricultural Enhancement Monitoring Program (AEMP) to assess the flood alleviation improvements to surrounding agricultural land resulting from project implementation. The AEMP proposes to use declining levels of inundation as a proxy for enhanced agricultural productivity, since inundation and ponding have demonstrably adverse impacts on agricultural productivity. Each year for five years after completion of the restoration improvements, the applicant proposes to determine qualitatively the approximate area of inundation and ponding in the project area and surrounding agricultural lands. Ponded areas will be recorded with a GPS unit to establish the boundaries of the inundated areas. The extent of ponding would be compared to existing documentation of ponding (e.g., Exhibit No. 21) to determine if and where the project has resulted in drainage improvements. The applicant has not proposed any remedial action measures in the event that drainage improvements are not realized.

Special Condition No. 17 is attached to ensure that a final Agricultural Enhancement Monitoring Plan is submitted for the review and approval of the Executive Director that provides that agricultural productivity on the existing prime agricultural lands will be increased by at least 4,270 AUMs per year (or an equivalent agricultural productivity value) within five years of completion of Phase 2 construction. The condition further provides for remediation measures if this increase in productivity is not achieved. The remediation measures must provide that the permittee shall submit an application for an

amendment to CDP No. 1-10-032 proposing revisions to the project that would achieve the required increase in agricultural productivity on the existing prime agricultural lands.

The applicant also has committed to retain 55 acres of existing low-productivity pastureland on Riverside Ranch and to restore it to prime agricultural productivity within five years. According to the State Coastal Conservancy, the terms of its grant agreement with the Department of Fish and Game dictate that the acreage proposed for agricultural retention on the property is to be managed for short-grass forage habitat preferred by Aleutian cackling geese. The geese, which migrate through the North Coast region by the tens of thousands each winter and spring, typically graze on emergent pasture grasses with high nutritive value, which also is preferred livestock forage. Providing goose grazing habitat on public lands helps relieve the economic impacts caused by the geese grazing on privately owned farmlands. DFG is committed to managing (through future agricultural lease agreements) the retained agricultural portions of the property in a manner that is compatible both with Aleutian cackling goose forage habitat and with livestock grazing. It is believed that this management style, coupled with the anticipated flood reduction benefits resulting from implementation of the estuary restoration project, will promote the transformation of the retained agricultural land on the property from non-prime to prime conditions. Depending on the chosen management regime, the land would be expected to meet the standards for qualifying as "prime" in either paragraph (3) (i.e., the number of "animal units" the land can sustain) or (4) (i.e., capacity to generate a minimum commercial revenue of $200 per acre) of Section 51201(c) of the Government Code.

The Commission finds that the proposal to transform approximately 55 acres of non-prime agricultural land on Riverside Ranch to prime agricultural land within five years of completion of Phase 1 construction would, if successful, help to offset the productivity lost due to the proposed conversion of 52 acres of prime agricultural land (which equates to a loss of 522 AUMs per year) for Phase 2 restoration activities. The proposed transformation of at least 52 acres of agricultural land from non-prime to prime within five years on Riverside Ranch is a feasible mitigation measure necessary to offset in part the project's adverse impacts on coastal agricultural resources (i.e., the proposed conversion of 52 acres of prime agricultural land inconsistent with Section 30241 of the Coastal Act).

Although the proposed plan to transform 55 acres of non-prime agricultural land to prime agricultural land is appropriate, the plan is lacking in detail, methodology, and specifics to ensure that intended results are achieved. Furthermore, the measures as proposed do not contain any provisions for remedial action in the event that increases in agricultural productivity are not realized. Therefore, the Commission attaches Special Condition No. 18. **Special Condition No. 18** requires submittal of a plan, for the Executive Director's review and approval, to transform at least 52 acres of currently non-prime agricultural land on Riverside Ranch to "prime agricultural land" as defined in Section 51201(c) of the California Government Code within five years of completion of Phase 1 construction. The plan requires the submittal of a report by the end of the 5th-year following completion of Phase 1 construction documenting the amount of retained agricultural land at Riverside Ranch that has actually been transformed to prime agricultural land at that point. If the report indicates that less than 52 acres has been transformed to prime agricultural land at

Riverside Ranch, the permittee must submit a permit amendment proposing either (i) corrective measures to ensure that at least 52 acres of the retained agricultural land on Riverside Ranch will qualify as prime agricultural land within one year of approval of the permit amendment, or (ii) to transform other non-prime agricultural land elsewhere within the coastal zone in the Eel River Delta to prime agricultural land in an amount equal to or greater than the number of acres less than 52 that have been transformed to prime agricultural land on Riverside Ranch.

The Commission finds that there is another aspect of the overall project that also would help offset the loss of 52 acres of prime agricultural lands for Phase 2 restoration activities. An ongoing threat to the agricultural productivity and the integrity of the restored habitats of the Salt River basin is the continual input of massive loads of sediment into the river system from tributary watersheds, which has the potential to compromise the success of the restoration project and lead to increased flooding of surrounding agricultural lands. The Final EIR prepared for the proposed project included a project element involving sediment reduction activities that would occur outside of the coastal zone and thus not require coastal development permit authorization. The Upslope Sediment Reduction Program is an ongoing effort being undertaken by the applicant to address controllable sources of sediment being deposited via tributary watersheds into the lower basin from upslope sources in the Wildcat Hills. In the Francis Creek watershed, an Upslope and Instream Erosion Hazard Assessment and Inventory was completed in 2009. The report identified some 170 sites with potential for sediment delivery, 132 of which were either currently delivering or had the potential to deliver sediment to Francis Creek. Fifty-six sites were deemed to be high priority, meaning that the sites were not adequately protected against erosion during peak storm events and would likely contribute 50+ cubic yards of sediment to a watercourse, if complete failure occurred. To date, the applicant has successfully partnered with a private landowner to treat some 10,234 feet of road and 37 specific erosion sites with best management practices, including shaping and surfacing of the roadway, installing adequately-sized culverts, rock armoring the inlets and outlets, installation of critical dips, rocked rolling dips, rolling grade breaks, and performing inside ditch work, preventing some 6,334 cubic yards of sediment from entering the creek. In addition, in the Williams Creek watershed, an Upslope and Instream Erosion Hazard Assessment and Inventory completed in 2010 identified some 164 sites with potential for sediment delivery. Forty-nine sites were deemed high priority.

The applicant has worked with private landowners to implement a variety of erosion control activities over the past several years, and the applicant proposes to continue to reach out to landowners in the Williams, Francis, and Reas Creek watersheds to complement the proposed project by improving water quality and anadromous fish habitat in the watershed and reducing erosion and sediment deposition on the delta, thereby extending the longevity of the proposed channel excavation. The upslope projects are funded through the State Water Resources Control Board and typically are implemented under a cost-share agreement with the landowners providing materials and/or equipment. Areas proposed for restoration/sediment reduction in the Final EIR are depicted on Exhibit No. 24.

The Commission finds that continued implementation of the Upslope Sediment Reduction Program as described in the Final EIR for the Salt River Ecosystem Restoration Project is essential to better ensure the success of the proposed project in reducing flooding impacts on agricultural lands and restoring habitat and will help offset the loss of 52 acres of prime agricultural lands for Phase 2 restoration activities. To ensure that the applicant continues to implement the upslope sediment reduction program as proposed, the Commission attaches **Special Condition No. 19**. This condition requires that the Upslope Sediment Reduction Program be implemented as proposed in the Final EIR and that annual progress reports be submitted for the review and approval of the Executive Director for five years following completion of the Phase 2 improvements. The annual progress reports shall (a) document the progress made during the reporting period in planning, coordinating, and implementing specific erosion control and sediment reduction projects under the program, (b) summarize the total number of sites and treated under the program to date, (c) identify the high priority sites to be addressed in the coming year of the program and discuss the steps needed to implement an erosion control or sediment reduction project at each site, (d) identify funding that has been secured to date and the amount of new funding that was secured over the reporting period, and (e) identify steps to be followed to secure additional needed funding over the next year.

In conclusion, the Commission finds that because the project as conditioned will (1) reestablish prior habitat conditions and the processes that create those conditions in a converted and degraded natural wetland (seasonal grazing land); (2) restore hydraulic capacity and expand the tidal prism to improve water quality and drainage efficiency across the Eel River floodplain such that substantial benefits to marine resources and surrounding prime agricultural lands will result; (3) restore instream fish habitat within 7.5 miles of the Salt River and reconnect access to spawning habitats for migrating salmonids in 15 miles of river tributaries; (4) ensure through monitoring that the purported benefits to prime agricultural land in the project vicinity are accrued as proposed; (5) retain and transform 55 acres of existing low-productivity pastureland on Riverside Ranch to prime agricultural productivity within five years; and (6) implement upslope erosion control and sediment reduction projects to reduce the inflow of sediment into the Salt River system and to better ensure the success of the proposed project in reducing flooding impacts on agricultural lands and in restoring habitat values, no further agricultural impact mitigation is necessary to compensate for the conversion of 52 acres of prime agricultural land for the proposed habitat restoration.

H. HAZARDS

Section 30253 of the Coastal Act states, in applicable part, as follows:

> *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…*

(1) GEOLOGIC AND FLOOD HAZARDS IN THE PROJECT AREA

The project site is located in an area of high geologic and flood hazards. The area is highly active tectonically and subject to episodic land subsidence in response to large earthquakes (from the Cascadia subduction zone). According to the Final EIR, the Eel River delta region has undergone net subsidence in the late Holocene at an average rate of about 1-3 millimeter per year, though most of the subsidence occurs during large tectonic events that result in one to three meters of net permanent subsidence. Geologic studies of the area indicate that there have been five rapid subsidence events over the past 200 years, the most recent of which occurred approximately 300 years ago. The studies have revealed that (1) net subsidence across the Eel River Delta is non-uniform, (2) slow rates of sediment accumulation associated with tidal wetland and river flooding occur across the delta during relatively stable periods following the sudden subsidence events, and (3) sedimentation patterns over the last 2,000 years indicate that fine-grained sediment and the development of stable vegetated surfaces followed the four oldest subsidence events.

In addition to geologic hazards, flooding and associated geomorphic processes are natural components of the Salt River system. The entire project area lies within FEMA's 100-year flood zone. Furthermore, the Salt River channel and project area upstream of Reas Creek, including proposed agricultural sediment reuse areas, are almost entirely in the Eel River floodway. As discussed above in Finding IV.E, flood hazards along the Salt River are related both to overbank flows from the Eel River and storm runoff from the Wildcat tributaries. Flooding due to overbank flow from the Salt River and its tributaries has increased in recent decades due to geomorphic changes previously discussed that have reduced the capacity of the Salt River channel to convey runoff. In addition, the reduction in Eel River floodwater drainage and sediment scour/transport through the Salt River has contributed to excessive accumulation over the past century. However, as discussed below, tectonic subsidence and sea level rise both work to counter-act the impacts of sediment accumulation in the Salt River, but at a much slower or less frequent rate than overbank flooding and associated sediment deposition.

Based on sea-level rise estimates presented in the California State Lands Commission's 2009 sea-level rise report, sea level is predicted to rise at a rate of 1.2 centimeters per year. As the design life of the proposed project is 50 years, this equates to a 2-foot (0.6-meter) sea-level rise over the life of the project (by the year 2060). Potential impacts of sea-level rise include inundation of habitats, agricultural lands, and infrastructure and increased frequency of flooding. According to the Final EIR, it is expected that the effects of sea-level rise will not be significantly different from the natural episodic tectonically induced subsidence, though it will occur much more gradually. The high sedimentation rates on the delta have effectively kept pace with historic sea-level rise and tectonic subsidence. In general, the project area experiences rapid land subsidence during episodic (approximately every 300-500 years) tectonic events followed by both gradual and rapid sediment accumulation associated with natural deltaic building processes from the Eel River and its tributaries. In geologic terms, the impacts of sea-level rise may impart gradual changes, but

likely will not significantly alter this large scale land-form generating process in such a tectonically active area.

In addition to the flood hazards associated with storm runoff and Eel River overbank flows discussed above, the entire project area is subject to the hazard of tsunami wave run-up, though this hazard is lower towards the upstream end of the project area, especially upstream of Highway 211.

(2) MINIMIZING RISKS

Section 30253 of the Coastal Act requires that new development in hazard areas minimize risks to life and property. The policy further requires that new development assure stability and structural integrity and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area.

Although the Salt River channel and project area upstream of Reas Creek, including the proposed agricultural sediment reuse areas, are located almost entirely in the Eel River floodway, the Final EIR states that extensive hydraulic modeling has determined that the project will not alter the Eel River floodway capacity. The project will not place any new development in the mainstem Salt River corridor that will displace the capacity of existing floodway to convey flood waters nor cause floodwaters to spread. Additionally, all material placed in the agricultural sediment reuse areas located within the floodway will be derived locally from excavation in the floodway, thereby balancing any impacts on floodway flow conveyance. Furthermore, extensive hydraulic modeling of the 75 percent project design indicates that the project will significantly increase the floodwater flow conveyance over existing conditions along the Salt River corridor and within the Eel River floodway. The project will accelerate the drainage of floodway lands that currently remain ponded throughout much of the winter season.

The channel restoration component has been designed to convey significantly larger volumes of water without increasing flood hazards on adjacent parcels to a higher degree than currently occurs. The channel has been sized to accommodate between the 1- and 2-year recurrence flood, accounting for increased flows resulting from reconnecting the upper watershed. Currently, without the contribution from the upper watershed, normal rain events cause flooding and prolonged inundation of large areas bordering the river through the project reach. The restored channel will convey flood waters and allow for the more rapid draining of flooded parcels bordering the river. In order to maintain the flood reduction and improved drainage benefits realized by the channel project, the project includes a long-term monitoring and maintenance plan that would assure monitoring for and adaptive management of the river channel to maintain the desired flood conveyance capacity (Exhibit No. 20).

There is expected to be little change in the nature and extent of flooding experienced by adjacent landowners as a result of the new setback berm around the outer edges of Riverside Ranch other than a more rapid drainage of flooded areas in the vicinity due to the construction of the outboard drainage ditch, increased conveyance of the lower Salt River

channel, and the internal slough channel network proposed to be constructed within Riverside Ranch. The existing levees bordering Riverside Ranch along the Salt River were constructed in an informal manner many decades ago. The levees are eroded and weakened in numerous locations and prone to frequent failures. The proposed new setback berm and berm improvements will yield far wider, less steep, and taller berms, constructed pursuant to modern construction methods and specifications. Thus, the proposed berm will provide adjacent landowners with superior flood protection than currently exists. Moreover, the proposed new berm will contain a high flow bypass in order to further accommodate drainage of adjacent properties during larger, more expansive Eel River floods.

In addition to minimizing flooding risks, the proposed project incorporates various measures to ensure that it does not contribute significantly to erosion. Boulder weirs to control bed gradients and minimize erosion risks will be installed at the Williams, Francis, and Reas Creeks connections with the restored Salt River channel as well as at new Riverside Ranch internal slough channel connections to the Salt River channel. The project plans also call for the use of bioengineering methods (e.g., planting of specific vegetation such as willow fascines and/or the installation of large-wood structures) as necessary to stabilize bank erosion both on tributaries and the main river channels. In addition, the project is designed to accommodate the increased tidal prism created through Phase 1 (Riverside Ranch) restoration so that no additional channel expansion is anticipated. Tidal energy is expected to maintain the construction channel geometry by transporting sediments introduced from the upper watershed or downstream estuary, but the reintroduction of tidal exchange to the area is not designed to impart enough change or energy to increase erosion in any portion of the excavated Salt River channel. Furthermore, the restoration design accounts for wind-wave erosion control measures through the proposed use of bioengineering stabilization measures as deemed necessary through implementation of the Adaptive Management Plan.

Finally, the proposed project has been designed to account for the hazards of future sea-level rise. The restored Riverside Ranch wetlands will be located at a relatively high elevation so that over the next 50-years, as sea-level rise encroaches, the habitats will generally be altered from higher marsh to lower marsh, as summarized in Table 10 below.

Table 10. Estimated changes in Riverside Ranch wetland habitat areas subject to 2 feet of sea-level rise over the design life of the project (50 years). Tabular data taken from Table 3.1-8 of the Final EIR.

	Elevation Range (feet NAVD88)	**As-Built Conditions (acres)**
Low Marsh	3.76-5.81	67
Mid Marsh	5.81-6.99	146
High Marsh	6.99-8.50	43
	Elevation Range (feet NAVD88)	**Post 2-foot Sea-Level Rise (acres)**
Low Marsh	5.76-7.81	180
Mid Marsh	7.81-8.99	17

High Marsh	8.99-10.5	21

Thus, as shown above, the low marsh habitat area will increase almost three times in area (from 67 to 180 acres), while mid- and high-marsh zones will decrease tremendously. In addition to the anticipated changes in tidal marsh habitats, upland areas (e.g., lower berm elevations above 9 feet) also will convert to wetland areas (e.g., high marsh habitat in some areas).

The proposed new setback berm also has been designed to accommodate the added effects of sea-level rise. The berm will have a top elevation of 14.75 feet NAVD88 with 3:1 (H:V) side slopes. This elevation is adequate to protect against wave erosion during extreme tides, and vegetation on the berm will further protect against moderate flood events. Cattle will be precluded from accessing the berm (via proposed livestock fencing along the base of the outboard length of the berm), which will further guard against associated erosion risks. In addition, the proposed berm height is sufficient to compensate for the anticipated 2-foot rise of sea-level projected over the 50-year economic life of the structure.

Even though the project has been designed to minimize risks associated with geologic and flood hazards, some risk remains. The entire project area is located within the FEMA-mapped 100-year floodplain of the Eel River, and there is no way to avoid the risk of a large magnitude flood event in the future. Given that the applicant has chosen to implement the project despite the identified geologic and flooding risks in the area, the applicant must assume the risks. Therefore, the Commission attaches **Special Condition No. 20**, which notifies the applicant that the Commission is not liable for damage as a result of approving the permit for 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 the hazards.

As conditioned as discussed above, the Commission finds the proposed new development is consistent with Section 30253 of the Coastal Act.

I. PROTECTION OF ARCHAEOLOGICAL RESOURCES

Section 30244 of the Coastal Act states as follows:

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

The project area includes lands formerly occupied by the Wiyot people, prior to Euro-American exploration and settlement in the area in the 1850's. The Wiyot dwelling place, Wotwetwok, was located along the Salt River (Oka't). The Wiyot used the Salt River and its surroundings for fishing and transport.

The proposed project area was surveyed for archaeological resources by registered professional archaeologists in 2008, with additional areas surveyed in 2010 (Roscoe & Associates, March 2008 plus January 2011 addendum). The resulting archaeological report indicates that the archaeological studies identified twelve historic-era resources eligible for listing on the California Register of Historical Resources (eight farmsteads, a linear dike and ditch system, a barn foundation and corral, Salt River channel improvement features, and a cement feature at the site of Port Kenyon) and one culturally sensitive area (historic town of Port Kenyon, which has a high probability for buried historic-era archaeological materials).

With regard to the historic-era resources, the report concludes that no adverse effects to the eight building complexes or cultural landscape will occur as a result of project implementation, so no specific mitigation measures are recommended to protect these resources. The report further concludes that no site-specific recommendations are warranted for the identified historic-era sites (dike and ditch system, barn foundation and corrals, etc.). Moreover, the archaeological report states that based on consultation with the Native American Heritage Commission, no listed "sacred lands" are present within the project area. However, according to the Wiyot Tribe, the Eel River watershed may be considered a "Traditional Cultural Property" with the potential for cultural use and resources in the project area.

With regard to the identified culturally sensitive area, the report recommends that the applicant (a) conduct additional pre-project archaeological testing at a particular location between Port Kenyon and the Salt River, (b) stop work within 20 meters of any discovery of cultural resources during ground-disturbing activities, with work not to resume until a professional archaeologist has evaluated the materials and offered recommendations for further action, and (c) follow a series of specific procedures in the event of inadvertent discovery of human remains, including stoppage of work within 20 meters of the discovery.

To ensure protection of any archaeological or cultural resources that may be discovered at the site during construction of the proposed project, the Commission attaches **Special Condition No. 21**. This condition requires (a) that the additional pre-project testing recommended by the archaeological report in the location between Port Kenyon and the Salt River be conducted and that a qualified cultural resource specialist analyze the significance of any resources discovered prior to the commencement of Phase 2 development, and (b) that if an area of cultural deposits is discovered during the course of the project, all construction within 20 meters of the discovery must cease, and a qualified cultural resource specialist must analyze the significance of the find and recommend any needed changes to the proposed development or mitigation measures to protect archaeological resources at either the site of pre-project testing or during construction. To recommence development following discovery of cultural deposits, the applicant is required to submit a supplementary archaeological plan for the review and approval of the Executive Director to determine 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 proposed project, as conditioned, is consistent with Coastal Act Section 30244, as the development will include mitigation measures to ensure that the development will not adversely impact archaeological resources.

J. PUBLIC ACCESS

The proposed project is located on public trust lands seaward of the first through public road, which in this area is Port Kenyon Road on the south side of the Salt River and Goble Lane on the north side of the Salt River. The historic navigable waters of the Salt River supported a shipping industry from 1870-1909. Land reclamation, construction of levees, channelization of tributaries, and excessive aggradation significantly reduced the extent of navigable waters within the Salt River, thereby decreasing the sustainability of the shipping industry. In addition to eliminating shipping, the transformation of the Salt River (as described in Finding IV.A above) also reduced and in many cases eliminated other benefits provided by the existence of navigable waters. These benefits included hydraulic connectivity and drainage, habitat benefits for aquatic and terrestrial species, and more. The proposed restoration project will greatly expand the extent of historic navigable waters and their many-fold benefits, resulting in an overall statewide benefit.

The Coastal Act contains numerous policies that address public access and recreation:

Section 30210 of the Coastal Act states as follows:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.* [Emphasis added.]

Section 30211 of the Coastal Act states as follows:

> *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

Section 30212 of the Coastal Act states, in applicable part, as follows:

> *(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or, (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.* [Emphasis added.]
>
> …
>
> *(c) Nothing in this division shall restrict public access nor shall it excuse the performance of duties and responsibilities of public agencies which are required by Sections 66478.1 to 66478.14, inclusive, of the Government Code and by Section 4 of Article X of the California Constitution.*

Section 30212.5 of the Coastal Act states as follows:

> *Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.*

Section 30213 of the Coastal Act states, in applicable part, as follows:

> *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.*
>
> …

Section 30214 of the Coastal Act states as follows:

> *(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:*
>
> *(1) Topographic and geologic site characteristics.*
>
> *(2) The capacity of the site to sustain use and at what level of intensity.*
>
> *(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.*
>
> *(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.*
>
> *(b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution.*
>
> *(c) In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.*

Section 30223 of the Coastal Act states as follows:

> *Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.*

Section 30224 of the Coastal Act states as follows:

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

> *harbors of refuge, and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land.*

As cited above, Section 30210 of the Coastal Act requires that maximum public access be provided consistent with public safety needs and the need to protect natural resource areas from overuse. Section 30212 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 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 must show that any denial of a permit application based on these policies 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. Finally, Section 30224 of the Coastal Act Section encourages increased recreational boating use of coastal waters by, among other means, increasing public launching facilities. In sum, the Coastal Act requirements applicable to the site require that development maximize public access and recreational opportunities.

Given that Riverside Ranch is a public property (under the ownership of DFG) and includes development over and into public trust resources, the provision of public access and recreation consistent with Coastal Act requirements is especially important. Notwithstanding the improved coastal access and substantial statewide public trust benefits resulting from the proposed restoration of tidal habitats and navigable waters, the project as proposed includes no specific public access components to increase and improve access and recreational opportunities available to the public at Riverside Ranch, as required by the above-cited policies. Thus, the project falls short of maximizing public recreational access opportunities consistent with the Coastal Act.

Currently there is no public access available in the project area except for use of the Salt River by small crafts using boating access points in other waterways outside of the project area (e.g., Morgan Slough or the Eel River). Moreover, existing public access in the surrounding region is limited. The only public beach access in the surrounding region is available at Centerville County Park and Beach, located approximately five (driving) miles west of the project site. Future public beach access is planned by The Wildlands Conservancy for its Eel River Estuary Preserve located west of the project site (including access to beach and dune areas south of the mouth of the Eel River), though it may be several years before necessary access improvements are permitted and implemented at that location. Public access to the Eel River (north side), including boating access, is available at Cock Robin Island, located approximately 11 (driving) miles from the project site. The closest boating access to the project area is located approximately two (driving) miles away at the westerly end of Camp Weott Road. A small dirt boat ramp and parking area allows for small boat and pedestrian access to Morgan Slough approximately one mile from the Eel River mouth (Morgan Slough is a small, approximately mile-long tidal slough

that connects with the Salt and Eel Rivers near their confluence downstream of the project area). The small parking area supports a maximum of three to five cars, and the certified access plan in the County's LCP recommends acquisition from willing sellers of additional area at this location to provide for additional vehicles (10-15 additional cars) and boat trailers.

The applicant has not proposed any public access in the project area post other than access to navigable waters from access points outside of the project area, even though over half of the project area (~440 acres) will be under public (DFG) ownership. However, various features of the project could facilitate future public access at the site in a manner that would protect both natural and agricultural resources and would provide for public safety. These include the proposal to maintain significant acreages of upland areas near the southern entrance to the property and along the length of the approximately 2-mile-long 12-foot-wide berm that will buttress the eastern edge of the restoration area, and the proposal to install livestock-exclusion fencing along the length of the new setback berm to separate the proposed agricultural and natural resources uses of the property. The upland areas could be used for future public access amenities such as parking and pedestrian trail development (along the top of the new berm) without impacting restored habitat areas, and the fencing would serve to separate the public from retained agricultural operations on the property. Moreover, it is worth noting that the terms of the State Coastal Conservancy grant agreement for the acquisition of Riverside Ranch specify as an "essential provision" of the permanent dedication of the property that the purpose of the property acquisition is for "*…agricultural open space, habitat preservation and public access. No use of the real property inconsistent with these purposes is permitted*" (emphasis added).

The DFG has not yet prepared a management plan for its recently acquired Riverside Ranch property, but based on the proposed project plans, the property will be managed primarily for natural resources and agricultural uses. Any future planned public access improvements are unspecified at this time. The majority of the property will be restored to tidal habitats (~355 acres) and riparian habitats (~43 acres). Approximately 55 acres of the property will be maintained in agricultural production with the intent (according to the Final EIR) that the pastureland will be managed for agricultural uses in a manner that also supports Aleutian cackling goose habitat (the geese prefer to forage on new growth that emerges in the winter and spring when the birds migrate through the North Coast region, and providing grazing habitat for the geese on public lands helps relieve the economic impacts caused by geese grazing on privately owned farmlands). Agricultural areas will include pasturelands east and southeast of the new setback berm, which is necessary to contain the restored tidal habitats and prevent flooding of surrounding County infrastructure, private properties, and agricultural land. Other agricultural areas include the area around the Riverside Ranch Road access to the property where the existing dilapidated barn and manure ponds (which are proposed to be filled) are located.

Thus, the Commission finds that (1) existing public access in the project area is non-existent to severely limited, (2) a large portion (over half) of the project area has recently been transferred to public ownership (DFG), and (3) the access policies of the Coastal Act require that development maximize public access and recreational opportunities. The

Commission therefore finds that inclusion of public access is necessary to avoid any of the project's potential adverse impacts on future potential public access to Riverside Ranch (i.e., the portion of the project area under public ownership). Without the development of a public access plan for the property, future management of the site could be undertaken in a way that would preclude public access. The preparation and implementation of a public access plan would fulfill Coastal Act requirements for maximizing public access and would provide specificity on how such public access amenities shall be provided, maintained, and made available for general public recreational use in a manner that maximizes their utility and value, protects public safety, and does not adversely affect natural or agricultural resources.

Therefore, the Commission attaches **Special Condition No. 22** to require that a public access plan for the property be prepared and submitted for the Executive Director's review and approval prior to commencement of Phase 1 construction (or such additional time as the Executive Director may grant for good cause). The plan must demonstrate that (a) public access amenities shall be provided at Riverside Ranch within two years of completion of the authorized Phase 1 construction activities; (b) public access amenities shall include, at a minimum, the following: (i) public parking for a minimum of six to eight vehicles; (ii) a trail suitable for foot traffic on top of and along the entire length of the new setback berm; (iii) a viewing platform at the seaward end of the setback berm trail; (iv) at least two interpretive panels or signs describing the restoration project and/or issues, information, and history related to the Eel River Estuary; and (v) access for non-motorized boating located at or near the parking area; and (c) all public access areas and amenities shall be available to the general public free of charge at a minimum during daylight hours each weekend of the year. The required public access plan is needed to refine and secure public access elements in a way that will provide maximum public benefit at this important public site in the Eel River Estuary consistent with the Coastal Act policies discussed in this finding.

In conclusion, the Commission finds that the project, as conditioned, will provide maximum public access consistent with public safety needs and the protection of natural resources and is consistent with the requirements of Coastal Act Sections 30210, 30211, 30212, and 30214.

K. PUBLIC TRUST LANDS

Because the project site is located in an area subject to the public trust as discussed above, 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 No. 23**. This condition requires that the project be reviewed and where necessary approved by the State Lands Commission prior to the issuance of the coastal development permit.

L. OTHER APPROVALS

The project requires review and authorization by the U.S. Army Corps of Engineers, the North Coast Regional Water Quality Control Board, and the Department of Fish and Game (for both FGC Sec. 1602 Streambed Alteration Agreement and CESA Consistency Determination). Pursuant to the Federal Coastal Zone Management Act, any permit issued by a federal agency for activities that affect the coastal zone must be consistent with the coastal zone management program for that state. Under agreements between the Coastal Commission and the Corps, the Corps will not issue a permit until the Coastal Commission approves a federal consistency certification for the project or approves a permit.

To ensure that the project ultimately approved by the Corps, the RWQCB, and DFG is the same as the project authorized herein, the Commission attaches **Special Condition Nos. 24 25, 26, and 27**, which require the applicant to submit to the Executive Director evidence of these agencies' approvals of the project prior to permit issuance and, in the case of the Corps, prior to commencement of construction. The conditions require that any project changes resulting from these other agency approvals not be incorporated into the project until the applicant obtains any necessary amendments to this coastal development permit.

M. FINAL BIOLOGICAL OPINIONS

The project requires the preparation and issuance of final Biological Opinions (BOs) by the U.S. Fish and Wildlife Service (FWS) and NOAA-Fisheries. The BOs are expected to be finalized prior to the October hearing. FWS and NOAA-Fisheries staff have informed Commission staff that the BOs are not expected to reach conclusions contrary to the two Biological Assessments produced for the project (see Substantive File Documents, page 2), both of which concluded that the project may affect but would not jeopardize the continued existence of listed species in the project area. The BAs reached their determinations based on the numerous avoidance, minimization, and compensation measures incorporated into the proposed project.

To ensure that the project ultimately approved by the FWS and NOAA-Fisheries is the same as the project authorized herein, the Commission attaches **Special Condition No. 28**, which requires the applicant to submit, prior to permit issuance, the final Biological Opinions in support of the restoration work authorized by this permit and that are consistent with all terms and conditions of this permit. The applicant shall inform the Executive Director of any changes to the project required by the FWS and NOAA-Fisheries. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

N. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

The applicant, as the lead agency for CEQA purposes, certified a Final Environmental Impact Report for the proposed project on February 24, 2011 (SCH No. SD2007-05-06).

Section 13906 of the Commission's administrative regulation requires Coastal Commission approval of coastal development permit applications to be supported by a finding showing the application, as modified by any conditions of approval, is 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 any feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse effect the proposed development may have on the environment.

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

V. EXHIBITS:

(1) Regional Location Map
(2) Project Vicinity Map
(3) Land Use Zoning Map
(4) Historic Tidal Inundation Map
(5) Changes in Salt River Drainage Patterns Due to Sedimentation
(6) Generalized Overall Site Plan
(7) Generalized Existing Habitat Types
(8) Generalized Proposed Habitat Types
(9) Phase 1 (Riverside Ranch Restoration) 75% Plans
(10) Phase 2 (Salt River Channel Corridor Restoration) 50% Plans
(11) Francis Creek Culvert Replacement Plans
(12) Work Permitted Under Commission Emergency Permit No. 1-10-035-G
(13) Properties Proposed for Excavated Sediment Reuse
(14) Example Sediment Reuse Plan (draft template)
(15) Proposed CEQA Mitigation Measures
(16) Proposed Mitigation Measures for Listed Species
(17) Habitat Mitigation and Monitoring Plan (excerpt)
(18) Generalized Revegetation Plans
(19) Rare Plant Mitigation and Monitoring Plan (excerpt)
(20) Adaptive Management Plan (excerpt)
(21) Agricultural Areas Impacted by Chronic Flooding Where Improvement is Expected

(22) Areas of prime agricultural land that will be preserved by the conversion of non-prime agricultural land on Riverside Ranch
(23) Agricultural Analysis (excerpt)
(24) Upslope Sediment Reduction Areas

APPENDIX A

STANDARD CONDITIONS

1. Notice of Receipt and Acknowledgment:

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

2. Expiration:

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

3. Interpretation:

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

4. Assignment:

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

5. Terms and Conditions Run with the Land:

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

APPENDIX B

LIST OF PROJECT AREA LANDOWNERS AND ASSESSOR PARCEL NUMBERS

Phase 1 (11 APNs; 7 landowners)		100-291-09	Mike Toste
100-091-08	Dept. Fish & Game (DFG)	100-291-10	Mike Toste
100-091-10	Oleson	100-281-26	Mike Toste
100-101-07	Mendes	100-281-23	John & Charlotte Michel
100-111-01	DFG	100-281-25	Cooper
100-111-02	Mendes	100-281-29	Pfeiffer
100-111-07	Mendes	100-291-06	Larsen
100-111-08	DFG	100-291-08	Jim Regli
100-291-01	Bertha Russ Lytel Found.	106-021-12	Trutalli
100-291-02	Zana	106-021-80	Walker
100-291-06	Larsen	106-021-83	Tunzini
100-291-07	Walker	106-021-85	Coffee Creek Ptsp. (Russ)
Phase 2 (51 APNs; 32 landowners)		106-051-01	Camile Regli
100-111-13	Don Boynton	100-281-05	Miranda
100-111-14	Bob Boynton	100-281-02	Mike Toste
100-201-01	William Lorenzen	**Properties to Receive Excavated Sediments for Reuse on Agricultural Uplands (42 APNs; 13 landowners)**	
100-201-03	William Lorenzen	100-102-10	Alexandre
100-112-14	Vevoda	106-011-01	Alexandre (Manzi)
100-161-01	Vevoda	106-011-02	Alexandre
100-161-07	Vevoda	106-011-03	Alexandre (Halley)
100-201-02	William Lorenzen	106-011-20	Alexandre
100-161-13	Vevoda	106-011-24	Alexandre
100-171-03	Vevoda (Hamner Estate)	106-021-11	Alexandre
106-021-76	Vevoda	106-021-12	Alexandre (Trutalli)
106-021-77	Vevoda	106-021-13	Alexandre
100-161-08	City of Ferndale	106-021-30	Alexandre
100-162-03	Hawkins	106-021-32	Alexandre
100-162-13	D. Richardson	106-021-50	Alexandre (Trutalli)
100-162-14	D. Richardson	106-021-56	Alexandre
100-162-30	D. Richardson	106-021-61	Alexandre (Trutalli)
100-162-15	Elias Sousa	106-021-78	Alexandre (Trutalli)
100-162-28	Elias Sousa	106-031-01	Alexandre
100-231-02	Elias Sousa	030-211-08	Alexandre
100-231-07	Elias Sousa	031-171-17	Alexandre
100-162-33	Lazio (in bankruptcy)	031-171-22	Alexandre
100-171-02	Trueman Vroman	100-102-16	Boynton, Don (Rocha)
100-171-04	Shannon Stoltz	100-111-09	Boynton, Don
100-191-09	Scalvini	100-111-13	Boynton, Don
100-191-14	Scalvini	100-111-14	Boynton, Bob
100-191-15	Scalvini	100-102-14	Cahill
100-201-04	Tracy Copinni	106-011-04	Cahill
100-231-09	Parsons	030-071-01	Ferndale Fairgrounds
100-231-10	Scales	100-112-11	Head
100-231-12	Kempf	106-021-01	Head
100-241-01	Tom & Cindy Michel	106-021-39	McCanless
100-241-02	Ross	100-111-02	Mendes
100-241-03	Niels Lorenzen	106-021-37	Nelson
100-241-05	Giaimo	106-021-02	Rocha
100-281-03	Miranda	106-021-03	Rocha

Properties to Receive Excavated Sediments for Reuse on Agricultural Uplands (continued from previous page)	
106-021-07	Rocha
106-021-62	Rocha
100-162-15	Sousa
100-162-28	Sousa
100-231-02	Sousa
100-112-07	Schoenhofer
100-012-14	Vevoda
106-021-76	Vevoda
103-021-77	Vevoda