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 Staff: Melissa B. Kraemer
 Staff Report: April 28, 2011
 Hearing Date: May 12, 2011
 Commission Action:

STAFF REPORT: PERMIT AMENDMENT

APPLICATION NO.: 1-09-020-A1

APPLICANT: City of Arcata, Environmental Services Dept.

PROJECT LOCATION: Arcata, Humboldt County (APNs 501-042-001 and -008).

DESCRIPTION OF PROJECT PREVIOUSLY APPROVED: Restore wetland habitat near the margin of Humboldt Bay by 1) reconfiguring approximately 1,634 feet of a channelized reach of Fickle Hill Creek to create an approximately 1,934-foot-long meandering channel that more closely resembles the historic channel alignment; (2) installing 9 to 15 small log/boulder cover structures in the reconfigured channel to increase channel complexity and improve instream habitat; and (3) planting approximately 2.5 acres of native riparian vegetation along the length of the reconfigured channel.

DESCRIPTION OF CURRENT AMENDMENT REQUEST: (1) Reconfigure an additional 175-foot reach of Fickle Hill Creek at the upper end of the 1,934-foot-long meandering channel that was reconfigured under the original permit; (2) install additional large woody debris in the extended channel reach proposed for reconfiguration to increase channel complexity and improve instream habitat for aquatic species; (3) plant an additional approximately 0.5 acres of native riparian vegetation along the extended channel reach proposed for reconfiguration; and (4) install additional seasonal fencing to exclude cattle from the extended channel reach proposed for reconfiguration during

the winter season when the area is flooded and there is no benefit to livestock accessing the area for forage.

GENERAL PLAN DESIGNATION: Agricultural Exclusive (AE) & Natural Resources (NR).

ZONING DESIGNATION: Agricultural Exclusive (AE) and Natural Resources (NR) with a Wetland and Stream Protection (WSP) Combining Zone Overlay.

OTHER APPROVALS: California Department of Fish and Game CFGC Sec. 1603 Streambed Alteration Agreement No. R1-08-0094;
North Coast Regional Water Quality Control Board Water Quality Certification;
U.S. Army Corps of Engineers CWA Section 404 Permit No. 27434N.

SUBSTANTIVE FILE DOCUMENTS: Arcata Baylands Enhancement/Restoration Project Mitigated Negative Declaration (SCH #2006042056);
City of Arcata Certified Local Coastal Program.

SUMMARY OF STAFF RECOMMENDATION

On June 12, 2009, the Commission approved the City of Arcata's Coastal Development Permit Application No. 1-09-020 for the Fickle Hill Creek Restoration Project, which was designed to restore wetland habitat near the margin of Humboldt Bay by 1) reconfiguring approximately 1,634 feet of a channelized reach of Fickle Hill Creek to create an approximately 1,934-foot-long meandering channel that more closely resembles the historic channel alignment; (2) installing 9 to 15 small log/boulder cover structures in the reconfigured channel to increase channel complexity and improve in-stream habitat; and (3) planting approximately 2.5 acres of native riparian vegetation along the length of the reconfigured channel. The City completed the authorized work in the fall of 2009.

In its approval of CDP No. 1-09-020, the Commission found that the project presented a true conflict between Coastal Act Sections 30241 and 30242 and Sections 30230 and 30231, as the project would restore 0.3-acre of additional in-stream habitat and 2.5-acres of riparian habitat (consistent with Sections 30233, 30230, and 30231) while converting 2.5-acres of seasonal agricultural grazing land (inconsistent with Sections 30241 and 30242). The Commission found that to not approve the project would result in a failure to maintain and enhance marine resources and the biological productivity of coastal wetlands and waters that would be inconsistent with the mandates of Sections 30230 and 30231. The Commission approved the project pursuant to Section 30007.5 of the Coastal Act with the attachment of Special Condition Nos. 1-5 (among other special conditions). Special Condition No. 1 required submittal of a final monitoring plan

to outline a method for measuring and documenting the improvements in habitat value and diversity at the site over the course of five years following project completion. Special Condition No. 2 required the City to undertake the development pursuant to certain construction responsibilities. Special Condition No. 3 required the applicant to submit a final erosion and runoff control that is to include certain specified water quality best management practices for minimizing impacts to coastal waters. Special Condition No. 4 prohibited the planting of any plant species listed as problematic and/or invasive. Special Condition No. 5 required submittal of a final equipment staging and stockpiling plan.

The purpose of the proposed amendment is to complete the restoration project as originally envisioned by the City and the U.S. Fish and Wildlife Service (the City's funding partner under the Service's Conservation Partnerships Program), by expanding the project area to include an additional 175-foot-long reach of Fickle Hill Creek that was inadvertently omitted from the design plans submitted for review and approval under the original permit application. The extended stream reach area proposed for inclusion in this amendment request would link the restoration project area (permitted under CDP No. 1-09-020), including the lower 1,900 feet of the reconfigured creek, with an upper section of the creek that was previously enhanced under CDP No. 1-08-011 in 2008. The amendment request also includes installing additional large woody debris in the extended channel reach to increase channel complexity and improve instream habitat for aquatic species; planting an additional 0.5-acre of native riparian vegetation along the extended channel reach; and installing additional seasonal fencing to exclude cattle from the extended channel reach during the rainy season (when the area is inundated anyway and therefore unproductive for agricultural grazing purposes) to protect the newly planted vegetation as well as water quality.

The original permit (CDP No. 1-09-020) contained 11 special conditions (the first five of which are described briefly above), 10 of which staff recommends reimposing as conditions of CDP Amendment No. 1-09-020-A1 without any changes to remain in full force and effect. Staff recommends modifying and reimposing Special Condition No. 11 as a condition of CDP Amendment No. 1-09-020-A1 to expand the coverage of a required post-construction vegetation monitoring report to cover the expanded project area added by the amendment. The monitoring report is designed to ensure that any temporary impacts to the grazed seasonal wetland vegetation in the area resulting from the development will be fully restored to a level of coverage and density equivalent to vegetation coverage and density of the surrounding undisturbed areas. Staff also recommends adding Special Condition Nos. 12 and 13 as new special conditions attached to CDP Amendment No. 1-09-020-A1 to ensure that the development as amended will not have significant adverse impacts on the water quality of any of the coastal waters in the project area and that the project construction will not adversely affect the biological productivity and functional capacity coastal waters or wetlands. Special Condition No. 12 would require the applicant to submit a final supplemental monitoring plan for Executive Director's review and approval prior to issuance of the permit amendment to address the proposed restoration activities in the amended development project area, including provisions for remediation to ensure that the goals and objectives of the wetland restoration project, as amended, are met. Special Condition No. 13 would require submittal of a supplemental erosion and runoff control plan for the

Executive Director's review and approval prior to permit amendment issuance to specify water quality BMPs for the amended work area.

Staff believes that, similar to the Commission's approval of the original permit, to not approve the development as amended 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, even though the proposed restoration of stream habitat and riparian cover for the benefit of juvenile salmonid rearing habitat converts agricultural land in a manner inconsistent with the provisions of Sections 30241 and 30242 of the Coastal Act. In addition, it is the very essence of the project as amended, 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 were both feasible and less environmentally damaging. Therefore, to ensure that the maintenance and enhancement of marine resources and of the biological productivity of coastal waters that would enable the Commission to use the balancing provision of Section 30007.5 is achieved, staff believes that it is necessary to attach the special conditions discussed above, among others. Without these special conditions, staff believes that the Commission could not approve the development as amended pursuant to Section 30007.5 of the Coastal Act.

The Motion to adopt the Staff Recommendation is found on Page 6.

STAFF NOTES

1. Procedural Note

Section 13166 of the California Code of Regulations states that the Executive Director shall reject an amendment request if: (a) it lessens or avoids the intent of the approved permit; unless (b) the applicant presents newly discovered material information, which he or she could not, with reasonable diligence, have discovered and produced before the permit was granted.

On June 12, 2009 the Commission approved the City of Arcata's Coastal Development Permit Application No. 1-09-020 for the Fickle Hill Creek Restoration Project, which was designed to restore wetland habitat near the margin of Humboldt Bay by 1) reconfiguring approximately 1,634 feet of a channelized reach of Fickle Hill Creek to create an approximately 1,934-foot-long meandering channel that more closely resembles the historic channel alignment; (2) installing 9 to 15 small log/boulder cover structures in the reconfigured channel to increase channel complexity and improve instream habitat; and (3) planting approximately 2.5 acres of native riparian vegetation along the length of the reconfigured channel.

Under the current amendment request, the applicant proposes to expand the approved project area by (1) reconfiguring an additional 175-foot reach of Fickle Hill; (2) installing additional large woody debris in the extended channel reach proposed for reconfiguration to increase channel complexity and improve instream habitat for aquatic species; (3) planting an additional

approximately 0.5 acres of native riparian vegetation along the extended channel reach proposed for reconfiguration; and (4) installing additional seasonal fencing to exclude cattle from the extended channel reach proposed for reconfiguration during the winter season when the area is flooded and there is no benefit to livestock accessing the area for forage.

The purpose of the proposed amendment is to complete the restoration project as originally envisioned by the City and the U.S. Fish and Wildlife Service (the City's funding partner under the Service's Conservation Partnerships Program), by expanding the project area to include an additional 175-foot-long reach of Fickle Hill Creek that was inadvertently omitted from the design plans submitted for review and approval under the original permit application. The extended stream reach area proposed for inclusion in this amendment request would link the restoration project area (permitted under CDP No. 1-09-020), including the lower 1,900 feet of the reconfigured creek, with an upper section of the creek that was previously enhanced under CDP No. 1-08-011 in 2008.

Staff believes that with the attachment of the new conditions described below, the development authorized by the amended permit would be consistent with the Commission's intent in granting the original permit with conditions to allow the City to restore aquatic and riparian habitats in the Humboldt Bay area to maintaining optimum populations of marine organisms and for the protection of human health:

- Add Special Condition No. 12 to require submittal of a supplemental restoration monitoring program for the Executive Director's review and approval that outlines a method for measuring and documenting the improvements in habitat value and diversity at the site, including the site of the amended development, over the course of five years following project completion and includes provisions for remediation to ensure that the goals and objectives of the wetland restoration/enhancement project are met; and
- Add Special Condition No. 13 to require submittal of a supplemental erosion and runoff control plan for the Executive Director's review and approval to ensure in part that runoff from the site of the amended development does not increase sedimentation or pollutants in coastal waters.

The Executive Director has determined that the proposed amendment as conditioned would not lessen or avoid the intent of the approved permit. Therefore, the Executive Director has accepted the amendment request for processing.

2. Jurisdiction & Standard of Review

The project site is located in the Commission's retained permit jurisdiction. The City of Arcata has a certified Local Coastal Program (LCP), but the site is within an area shown on State Lands Commission maps over which the State retains a public trust interest. Therefore, the standard of review that the Commission must apply to the project is the Chapter 3 policies of the Coastal Act.

3. Scope

This staff report addresses only the coastal resource issues affected by the proposed permit amendment, provides recommended special conditions to reduce and mitigate significant impacts to coastal resources caused by the development as amended in order to achieve consistency with the Coastal Act, and provides findings for conditional approval of the amended development. All other analyses, findings, and conditions related to the originally permitted development, except as specifically affected by the current permit amendment request and addressed herein, remain as stated within the original permit approval adopted by the Commission on June 12, 2009 attached as Exhibit No. 9.

4. Highlighted Revisions to Special Conditions and Findings

Changes to the special conditions and related findings for approval of the subject coastal development permit appear in highlighted text format. Deleted language is shown in ~~strikethrough~~; new text appears as **bold double-underlined**.

I. MOTION, STAFF RECOMMENDATION, & RESOLUTION

The staff recommends that the Commission adopt the following resolution:

Motion:

I move that the Commission approve the proposed amendment to Coastal Development Permit No. 1-09-020 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 amendment 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 with Conditions:

The Commission hereby approves the proposed permit amendment and adopts the findings set forth below, subject to the conditions below, on the grounds that the development with the proposed amendment, as conditioned, will be in conformity with the Chapter 3 policies of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because all feasible mitigation measures and alternatives have been incorporated to substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS: See Appendix A.

III. SPECIAL CONDITIONS:

Note: The original permit (CDP No. 1-09-020) contains 11 special conditions, 10 of which are reimposed as conditions of CDP Amendment No. 1-09-020-A1 without any changes and remain in full force and effect. Special Condition No. 11 is modified and reimposed as a condition of CDP Amendment No. 1-09-020-A1. Special Condition Nos. 12 and 13 are additional new special conditions attached to CDP Amendment No. 1-09-020-A1. For comparison, the text of the original permit conditions is included in Exhibit No. 9.

Deleted wording within the modified special conditions is shown in ~~striketrough~~ text, and new condition language appears as **bold double-underlined** text.

11. Grazed Seasonal Wetland Vegetation Monitoring

Within 18 months of completion of development authorized by CDP No. 1-09-020 as amended, the permittee shall submit, for the review and written approval of the Executive Director, a vegetation monitoring report prepared by a qualified biologist or botanist which evaluates whether the objective of reestablishing vegetation in all portions of the project area designed to re-established as seasonal wetland areas (diked former tidelands) to a level of coverage and density equivalent to vegetation coverage and density of the surrounding undisturbed areas has been achieved. If the report indicates that the revegetation of any of the disturbed areas, including the temporary access roads and staging areas, has not been successful, in part or in whole, the permittee shall submit a revised revegetation program to achieve the objective. The revised revegetation program shall require an amendment to Coastal Development Permit No. 1-09-020.

12. Supplemental Restoration Monitoring Program

(A). PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT AMENDMENT NO. 1-09-020-A1, the applicant shall submit for review and approval of the Executive Director, a supplemental restoration monitoring program that substantially conforms to the monitoring plan titled “City of Arcata Restoration Monitoring Plan for Arcata Baylands Seasonal Wetland Enhancement and Fickle Hill Creek Restoration Coastal Development Permit No. 1-08-011 Arcata, California, Humboldt County” and dated August 10, 2009 approved by the Executive Director (Exhibit No. 6). The supplemental restoration monitoring program shall include provisions for monitoring the extended project area that is the subject of CDP Amendment No. 1-09-020-A1 and shall at a minimum include the following:

1. Performance standards that will assure achievement of the restoration goals and objectives set forth in Coastal Development Permit Application Nos. 1-09-020 and 1-09-020-A1 as summarized in the Findings IV.B, “Project Description,” of CDP Amendment No. 1-09-020-A1, including, but not

- limited to, the restoration of (a) an additional 175-foot reach of the historic channel configuration of Fickle Hill Creek, (b) instream habitat cover in the reconfigured reach of the channel, and (c) an additional 0.5 acres of native riparian vegetation.
2. Provisions for monitoring at least the following attributes: increased usage of the reconfigured creek areas by (a) over-wintering juvenile salmonids; (b) waterfowl and passerines; and (c) other aquatic and water-associated wildlife.
 3. Provisions for submittal within 30 days of completion of the initial restoration work of (a) “as built” plans demonstrating that the initial restoration work has been completed in accordance with the approved restoration program, and (b) an assessment of the initial biological and ecological status of the “as built” enhancements. The assessment shall include an analysis of the attributes that will be monitored pursuant to the program, with a description of the methods for making that evaluation.
 4. Provisions to ensure that the restoration site will be remediated within one year of a determination by the permittee or the Executive Director that monitoring results indicate that the site does not meet the goals, objectives, and performance standards identified in the approved restoration program and in the approved final monitoring program.
 5. Provisions for monitoring and remediation of the restoration site in accordance with the approved final restoration program and the approved final monitoring program for a period of five (5) years.
 6. Provisions for submission of annual reports of monitoring results to the Executive Director by October 1 each year for the duration of the required monitoring period, beginning the first year after submission of the “as-built” assessment. Each report shall include copies of all previous reports as appendices. Each report shall also include a “Performance Evaluation” section where information and results from the monitoring program are used to evaluate the status of the stream restoration project in relation to the performance standards.
 7. Provisions for submission of a final monitoring report to the Executive Director at the end of the five-year reporting period. The final report must be prepared in conjunction with a qualified biologist. The report must evaluate whether the restoration site conforms with the goals, objectives, and performance standards set forth in the approved final restoration program. The report must address all of the monitoring data collected over the five-year period.
- (B). If the final report indicates that the restoration project has been unsuccessful, in part, or in whole, based on the approved goals and objectives set forth in Coastal Development Permit Application No. 1-09-020-A1 as summarized in Findings IV.B “Project Description,” the applicant shall submit a revised or supplemental

restoration program to compensate for those portions of the original program which did not meet the approved goals and objectives set forth in Coastal Development Permit Application No. 1-09-020-A1 as summarized in Finding IV.B "Project Description." The revised restoration program shall be processed as an amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

(C). The permittee shall monitor and remediate the restoration site in accordance with the approved supplemental monitoring program. Any proposed changes from the approved supplemental monitoring program shall be reported to the Executive Director. No changes to the approved supplemental monitoring program shall occur without a further Commission amendment to this coastal development permit unless the Executive Director determines no further amendment is legally required.

13. Supplemental Erosion & Runoff Control Plan

(A). PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT AMENDMENT NO. 1-09-020-A1, the applicant shall submit for review and approval of the Executive Director, a supplemental erosion and runoff control plan that substantially conforms to the plan titled "City of Arcata Erosion and Storm Water Pollution Prevention Plan for Arcata Baylands Seasonal Wetland Enhancement and Fickle Hill Creek Amendment Coastal Development Permit No. 1-08-011, RWQCB Certification #WDID 1B08027WNHU, Arcata, California, Humboldt County" and dated August 5, 2009 approved by the Executive Director (Exhibit No. 7). The supplemental erosion and runoff control plan shall include provisions for monitoring the additional development area added to the overall restoration project by CDP Amendment No. 1-09-020-A1.

1. The supplemental plan shall demonstrate the following:

- (a). Run-off from the project site shall not increase sedimentation in coastal waters or wetlands;
- (b). Run-off from the project site shall not result in pollutants entering coastal waters or wetlands;
- (c). Best Management Practices (BMPs) shall be used to prevent the entry of polluted stormwater runoff into coastal waters or adjacent wetlands during construction, including use of relevant best management practices (BMPs) as detailed in the "California Storm Water Best Management Practices Handbooks, (see <http://www.cabmphandbooks.com>);
- (d). 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; and

(e). The erosion and runoff control plan shall be consistent with the provisions of Special Condition No. 2 (Construction Responsibilities) and all other terms and conditions of Coastal Development Permit No. 1-09-020-A1.

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

(a). 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 run-off leaving the construction site; and

(b). A schedule for installation, use, and maintenance of appropriate construction materials handling and storage BMPs to prevent the entry of polluted stormwater runoff from the completed development into coastal waters.

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

IV. FINDINGS & DECLARATIONS

Changes to the findings for approval of CDP No. 1-09-020 that are incorporated to address the amended development authorized by CDP Amendment No. 1-09-020-A1 appear in highlighted text format. Deleted language is shown in ~~strikethrough~~; new text appears as **bold double-underlined**. For comparison see Exhibit No. 9.

The Commission hereby finds and declares as follows:

A. Background & Environmental Setting

The proposed ~~project~~ **development as amended** is part of a larger project effort known as the “Arcata Baylands Project,” which was designed to protect, restore, and enhance freshwater habitats adjacent to northern Humboldt Bay. The project area is part of the larger Humboldt Bay ecosystem that accommodates fish, waterfowl, wading birds, shorebirds, passerines, raptors, and other water-associated wildlife (Exhibit Nos. 1 and 2). Humboldt Bay is second only to San Francisco Bay in the numbers and variety of migratory water-associated birds wintering in the coastal segment of the Pacific Flyway of California. The bay is one of California’s most

important stopovers for dozens of species of migrating birds, which use the area for nesting, feeding, and resting. Over 200 species of birds (18 of them State-listed as “endangered” or “species of special concern”) have been recorded in and around the project vicinity.

The 588-acre property on which the project is located is part of a larger conservation protection and enhancement effort in the Humboldt Bay region designed to help establish a connectivity of habitat encompassing over 1,300 acres of locally-, state-, and federally-protected lands adjacent to the northern edge of Humboldt Bay (Arcata Bay). The project lands are owned and managed by the City in perpetuity for the conservation of coastal wetland habitats and the wildlife resources that depend on them. The project area is adjacent to or near a suite of protected lands including the Humboldt Bay National Wildlife Refuge, the 225-acre Arcata Marsh and Wildlife Sanctuary, the 508-acre California Department of Fish and Game (CDFG) Mad River Slough Wildlife Area, and lands owned and managed for conservation by the Jacoby Creek Land Trust. Additional restoration efforts that the applicant has undertaken in the project vicinity over the past six years include the following:

- CDP No. 1-03-031: In November of 2003 the Commission approved this permit for the City to construct cattle exclusion fencing to enclose an 8.7-acre area along a 2,537-foot reach of lower Campbell Creek/Gannon Slough, a tributary to Humboldt Bay, and re-vegetate the enclosed area with native plants to result in substantial water quality improvement and restoration of terrestrial and aquatic habitat diversity along the lower reaches of the watercourse.
- CDP No. 1-05-017: In June of 2005 the Commission approved this permit for the City to restore several creeks and sloughs by: (1) improving riparian habitat, increasing canopy cover, providing future large woody debris recruitment for salmonids by realigning a 910-foot reach of Campbell Creek currently flowing through an artificial drainage ditch adjacent to Highway 101; (2) repairing an existing and non-functioning tidegate structure separating Gannon Slough from Humboldt Bay and replacing it with a side-hinged gate with a muted opening to provide access for anadromous salmonids; (3) providing enhanced floodplain and fish habitat structure by restoring a definable channel along an 850-foot reach of Beith Creek; and (4) installing livestock exclusion fencing and planting native trees and shrubs on both Campbell and Beith Creeks. The project was designed to restore terrestrial and aquatic habitat diversity along the lower reaches of the watercourses. In August of 2006 the Commission approved an amendment to the permit (CDP Amendment No. 1-05-017-A1) to extend the floodplain rehabilitation work on Beith Creek an additional 1,454 feet downstream from the previous bounds of the originally-approved project area to the confluence with Gannon Slough to further restore terrestrial and aquatic habitat diversity along the lower creek reaches.
- CDP No. 1-06-036: In June of 2007 the Commission approved this permit for the City to restore and enhance wetland function to 240 acres of reclaimed former tidal salt/brackish marsh to a combination of 205 acres of intertidal salt marsh wetlands and 35 acres of impounded freshwater and brackish wetlands by: (1) excavating the pond areas; (2) deepening approximately 5,200 lineal feet of existing slough channels within the reclaimed area; (3) constructing approximately 21,000 lineal feet of flood, eco-levee, and

pond perimeter levees around the periphery of the project component areas; (4) removing a total of approximately 1,200 lineal feet of portions of portions of the existing flood control levees along the lower reaches of McDaniel Slough to form roosting islands out of the remnant portions of the levees; (5) breaching the reclamation levee separating the project site from Arcata Bay at two locations to form muted tidal openings to provide access for anadromous salmonids, tidewater goby, and other marine fish species; (6) planting appropriate elevation-specific native saltmarsh plants on the inner faces of the eco levees; and (7) developing pedestrian and bicycle trail segments along the pond perimeters and out to the reclamation levee breach site.

- CDP No. 1-08-011: In August of 2008 the Commission approved the permit for the City to enhance four seasonal freshwater wetland areas totaling 12.4 acres and to install water-control structures to allow for continued seasonal agricultural grazing in the affected areas. The project was designed to provide habitat benefits for waterfowl, shorebirds, and other water-associated wildlife while maintaining agricultural and Aleutian Cackling Goose habitat. The project included enhancing an existing seasonal wetland area surrounding a portion of Fickle Hill Creek upstream of the proposed project area.
- CDP No. 1-09-030: In July of 2010 the Commission approved the permit for the City to restore over 48 acres of tidal habitats in the lower Jacoby Creek area by (1) repairing an existing top-hinged tide gate and installing a 4-foot side-hinged gate with fish doors to allow muted tidal flow to reestablish estuarine conditions in the remnant channel located upstream of the tide gates; (2) installing two 24-inch to 36-inch diameter 20-foot-long culverts with screw gates under the existing railroad grade levee to connect additional remnant channels to Gannon Slough and its tributaries while allowing the City to control flow to prevent flooding of adjacent agricultural lands; (3) restoring over 15 acres of historic tidal habitat associated with the Jacoby Creek estuary by constructing a new setback levee and removing approximately 500 linear feet of existing levee adjacent to Jacoby Creek to allow the creek to reoccupy this seasonally grazed agricultural area; (4) installing a 36-inch culvert and tide gate with an adjustable auxiliary door in the new setback levee to allow freshwater flows to enter the estuary area during storm events and to reestablish estuarine connectivity with adjacent seasonal freshwater wetland and channel habitats; and (5) constructing approximately 1,400 lineal feet of new connecting channel between Jacoby Creek and South Gannon Slough to restore a historic tidal channel, provide hydrologic connectivity during flood events, and establish a properly functioning tidal drainage network.

The City's landscape-level management approach seeks to provide a diverse complex of habitat types in the northern Humboldt Bay area. See Exhibit No. 3 for the location of the proposed project development as amended in relation to these other protected lands.

The project area is located primarily on seasonally grazed, seasonal wetlands between Highway 101 and Old Arcata Road (Exhibit Nos. 1-2). Historically the area was part of the extensive tidal marshes of Humboldt Bay, which were diked off and converted for agricultural purposes over a century ago. Vegetation in the area consists mostly of actively grazed agricultural grasslands

comprised of a mix of native and nonnative grasses and forbs. The existing grazed seasonal wetlands do not support habitat for any sensitive plant or animal species. The existing Fickle Hill creek channel may support limited suitable habitat for sensitive fish species such as coastal cutthroat trout during the winter months when the channel is flowing, but due to the lack of riparian cover, stream sinuosity, and instream habitat features, the existing channel currently does not provide much suitable rearing habitat for threatened juvenile salmonids such as coho salmon, Chinook salmon, and steelhead. The existing creek typically dries out completely during the summer months, and cattle graze within and around the stream banks and bottom.

The project area is inundated with stormwater runoff each winter and has such saturated soils that much of the area is not available for grazing for five to seven months each year, depending on rainfall. In the summer these areas are grazed by cattle. The City currently leases the project area properties to three ranchers who will continue to ranch the area post implementation of the proposed development. The area soils have been classified as Ba3 – Bayside Silty Clay Loam (McLaughlin & Harradine 1965), poorly to imperfectly drained. More recently the soils have been classified as 140 – Occidental, 0-2% slopes, very poorly drained (NRCS 2009). No prime agricultural soils occur within the Baylands project area.

Fickle Hill Creek is an intermittent stream (dries out in the summer months) that runs through the Arcata Baylands project area. Fickle Hill Creek is a tributary to Beith Creek, which flows into Gannon Slough before entering Humboldt Bay (Exhibit No. 2). As mentioned above, restoration of Beith Creek and Gannon Slough has been implemented through a series of projects managed by the City since 2003. Since the City installed a fish-friendly tidegate on Gannon Slough in 2006 (under CDP No. 1-05-017), coho and other salmonids have been detected in the lower watershed. The tidegate allows muted tidal exchange to influence the lower reach of Fickle Hill Creek downstream of the project area, enhancing its estuarine function. In general, the Fickle Hill Creek channel historically was dredged, straightened, and bermed, significantly changing its original configuration. The channel also lacks instream structure and riparian cover, in part due to the presence of cattle along and within the watercourse banks.

Project area zoning under Arcata's certified LCP is both Agriculture Exclusive (AE) and Natural Resources (NR) with a Wetland and Creek Protection Overlay Zone. The area is within the 100-year FEMA floodplain. With the exception of Highway 101's Class II bike lanes, there are no coastal access and recreational amenities for hiking, cycling, bird-watching, and boating in the immediate project vicinity. However, numerous such activities centered around Arcata Bay and its saltwater tidal margins are available nearby at the Arcata Marsh and Wildlife Sanctuary, the Butcher Slough Restoration Project, the Arcata Marsh Interpretative Center, and the Department of Fish and Games Mad River Slough Restoration Area, across Highway 101 to the west and south of State Route 255, along the northern shoreline of the bay.

B. Description of Proposed Development, as Amended

The purpose of the proposed amendment is to complete the restoration project as originally envisioned by the City and the U.S. Fish and Wildlife Service (the City's funding partner under the Service's Conservation Partnerships Program), by expanding the project area to

include an additional 175-foot-long reach of Fickle Hill Creek that was inadvertently omitted from the design plans submitted for review and approval under the original permit application. The extended stream reach area proposed for inclusion in this amendment request would link the restoration project area (permitted under CDP No. 1-09-020), including the lower 1,900 feet of the reconfigured creek, with an upper section of the creek that was previously enhanced under CDP No. 1-08-011 in 2008. The work authorized by CDP No. 1-09-020 was completed by the City in the late summer/early fall of 2009

Using the 1870 U.S. Coast Survey Historic Map as a reference, the **proposed development as amended involves** City proposes to construction of channel meanders along ~~an~~ **a total of** approximately ~~1,634~~ **1,809**-foot-long reach of Fickle Hill Creek (Exhibit Nos. 4 and 5). The proposed stream channel reconfiguration is intended to provide a more natural channel configuration and would result in a final channel length of approximately ~~1,934~~ **2,109** feet. The City would remove approximately 1,285 cubic yards of material to create the new channel, and place approximately 1,051 cubic yards of excavated material into the abandoned (existing) channel. Two culverts also would be removed two culverts from the abandoned channel. Sod scraped from the excavation areas would be stored and used to revegetate the filled channel areas to maintain the existing site vegetation. The existing channel would be filled to the same level as the surrounding grazed seasonal wetlands, and where it is not proposed to be planted with riparian habitat, the filled channel would be converted to grazed seasonal wetland habitat. Approximately 235 cubic yards of excess fill would be hauled off site to either be used at the McDaniel Slough project (authorized by CDP No. 1-06-036), **the Jacoby Creek Estuary Enhancement project (authorized by CDP No. 1-09-030)**, or disposed of at a City-owned rock quarry. The City would use bulldozers, excavators, loaders, scrapers, and transport vehicles to carry out the proposed amended development. In addition to the channel reconfiguration, the City proposes to **proposed development as amended involves** placement of 9 to 15 cover structures within the reconfigured channel to increase channel complexity and improve instream habitat. The cover structures ~~would~~ consist of small logs and boulders anchored into the creek banks. The City also proposes to plant a total of ~~2.5~~ **3** acres of native riparian vegetation along the length of the reconfigured channel. Native trees, including red alder (*Alnus rubra*) and Sitka spruce (*Picea sitchensis*), would be planted on 10- to 15-foot centers. Native shrubs, including wax myrtle (*Morella californica*) and red flowering currant (*Ribes sanguineum*), would be interspersed throughout the revegetation area. Concurrent with planting, the City proposes to remove invasive, nonnative plants. Finally, the City proposes to install ~~1,200~~ **4,700** linear feet of temporary, woven wire fencing to protect the vegetation from grazing cattle. The temporary fencing would consist of 7-foot steel T-posts spaced 10 feet apart and driven into the ground approximately 30 inches with no soil removed. The fencing would be removed once the vegetation has matured enough to withstand cattle impacts (perhaps as soon as five years).

The proposed development, **as amended**, would result in the creation of 0.3-acre of additional ephemeral (intermittent) instream habitat and would lengthen the channel reach by 300 feet. The City maintains that the proposed work would restore juvenile salmonid winter rearing habitat through the restoration of stream sinuosity, instream habitat cover, and riparian habitat on Fickle Hill Creek. The City also maintains that the project would increase flood capacity by the

lengthening of the creek channel and increase connectivity of riparian habitat available for the nesting, wintering, and stopover of waterfowl and passerines.

The City proposes to minimize impacts to seasonal wetlands, agricultural lands, and water quality in the project area through the following mitigation measures **that would apply to the development as amended:**

- Construction activities would only occur between June 15th and October 31st to avoid or minimize soil compaction and sediment transport;
- In the event of unseasonable rainfall, construction would not occur during periods when any surface runoff occurs on exposed soil due to rainfall;
- All exposed soils that could erode into creek channels would be seeded, mulched with weed-free straw mulch, or have sod replaced;
- No equipment would operate directly within tidal waters or flowing stream channels;
- No construction materials, debris, or waste would be placed or stored where it could enter or be washed by rainfall into coastal waters;
- Sediment controls would be in place for work occurring in or near creeks; and
- Equipment refueling and maintenance would take place only in designated areas where potential spills of fuel, lubricants, or coolants could be contained and cleaned up without impacts to aquatic habitats.

The **development as amended includes the** ~~City proposes to use~~ **of** an approximately 20-foot-wide area around the length of the existing channel and the proposed reconfigured channel for the construction work area and the temporary stockpiling of sod during excavation.

In addition, the Commission notes that the applicant has been or will be obtaining several other permits and associated authorizations for the project from other agencies that have or will contain terms and conditions for avoiding or minimizing impacts to coastal resources and the environment (see “Other Approvals” listed on page 2).

C. **Restoration of Marine Resources, Biological Productivity, and Permissible Filling, Dredging, & Diking of Wetlands**

1. **Applicable Coastal Act Policies & Standards**

Coastal Act Section 30230 states as follows:

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

Coastal Act Section 30231 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.]

Coastal Act Section 30233 provides as follows, in applicable part:

- (a) *The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*
- (6) *Restoration purposes* ...
- (c) *In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary...* [Emphasis added.]

2. Consistency Analysis

The proposed ~~project~~ **development, as amended**, will fill an approximately 1,634-foot-long reach of Fickle Hill Creek, which historically was dredged, straightened, and bermed, significantly changing its original configuration. At the same time the ~~project~~ **development, as amended**, will use the 1870 U.S. Coast Survey Historic Map as a reference to restore an approximately ~~1,934~~ **2,109**-foot-long meandering channel in the same reach by dredging existing grazed seasonal wetlands. Additionally, the ~~proposed project~~ **development, as amended**, will place 9 to 15 cover structures (consisting of small boulders and logs) within the reconfigured channel to increase channel complexity and improve instream habitat. Finally, the ~~project~~ **development, as amended**, will plant approximately ~~2.5~~ **3** acres of riparian vegetation along the length of the newly reconfigured channel. Thus, the ~~project~~ **development, as amended**, involves both dredging and filling of intermittent (ephemeral) riverine wetlands. The ~~proposed development project~~ **development, as amended**, will result in a net gain of 0.3-acre of intermittent creek instream habitat, lengthening the channel reach by 300 feet. At the same time the ~~project~~ **development as amended** will result in a net decrease of about 0.3-acre of grazed seasonal wetlands (which will be restored/converted to the historic channel habitat).

Coastal Act Sections 30230 and 30231 require, in part, that marine resources and coastal wetlands 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.

When read together as a suite of policy directives, Sections 30230, 30231, and 30233 set 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.

a. Permissible Use for Diking, Dredging, & Filling

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. The relevant category of use listed under Section 30233(a) that relates to the proposed project is subcategory (6), “restoration purposes.”

The project **development as amended** ~~proposes to restore~~ restores ~~1,934~~ **2,109** feet (at a net gain of 300 feet) of intermittent riverine wetlands to restore and enhance juvenile salmonid winter rearing habitat. 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.”¹ The particular restorative methods and outcomes vary depending upon the subject being 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.”² However, within the field of “wetland restoration,” 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”³ 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

¹ Merriam-Webster’s Collegiate Dictionary, Tenth Edition

² “Definitions,” *Society of Ecological Restoration News*, Society for Ecological Restoration; Fall, 1994

³ *Position Paper on the Definition of Wetland Restoration*, Society of Wetland Scientists, August 6, 2000

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 proposed diking, filling, and dredging 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 diking, filling, and dredging impacts of the project actually result in long term degradation of the habitat, the proposed diking, filling, and dredging would not be for “restoration purposes.” These two characteristics 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 the ~~project~~ development as amended achieves its stated habitat enhancement objectives, and therefore be recognized as being for “restoration purposes,” the ~~project~~ development as amended 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; and (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 noted above, the ~~applicant proposes to~~ development as amended ~~uses~~ the 1870 U.S. Coast Survey Historic Map as a reference to restore a ~~4,634~~ 1,809-foot-long channelized, straightened, and bermed reach of Fickle Hill Creek to its ~~1,934~~ 2,109-foot-long historic meandering channel alignment. Although the area surrounding proposed project reach historically was part of the extensive tidal marshes of Humboldt Bay, which were diked off and converted for agricultural purposes over a century ago, the surrounding areas now function as freshwater seasonal wetlands that are grazed by cattle seasonally. The ~~proposed project,~~ as amended, ~~will involve~~ restoring the historic channel alignment of the creek within the complex of the diked former tidelands. The ~~project,~~ as amended, ~~involves~~ proposes to planting the length of the restored channel banks over a ~~2.5~~ 3-acre area with a diversity of native riparian vegetation. As discussed above, the ~~proposed development,~~ as amended, will result in a net gain of 0.3-acre of intermittent creek instream habitat and a net decrease of about 0.3-acre of grazed seasonal wetlands (which will be restored/converted to the historic channel habitat).

The ~~proposed~~ channel realignment ~~will~~ reestablishes approximately the same configuration of channelized wetland habitat that historically existed in the area prior to the channeling,

straightening, and berming of the creek for flood control and agricultural use purposes. Furthermore, the ~~proposed~~ project **as amended** will restore juvenile salmonid winter rearing habitat by restoring stream sinuosity, increasing cover (via the proposed placement of log/boulder cover structures), and enhancing riparian habitat along the creek. Scientific research has shown that juvenile coho salmon rearing in seasonal streams such as Fickle Hill Creek exhibit relatively high growth rates and tend to emigrate as larger smolts. Thus, the ~~proposed~~ development, **as amended**, entails actions taken in converted or degraded natural wetlands (channelized and straightened creek reach) that will result in the reestablishment of landscape-integrated ecological processes associated with the stream habitat. Therefore, the Commission finds that the ~~proposed~~ channel and instream habitat restoration **are project is** consistent with the definition of restoration and constitute filling and dredging for restoration purposes consistent with Section 30233(a)(6).

Planting the ~~2.5~~ **3**-acre riparian restoration area ~~as proposed~~ (with red alder, Sitka spruce, wax myrtle, and red-flowering currant) will benefit both terrestrial and marine-associated organisms. Riparian zones are just one of the many habitat elements in the marine nearshore environment, and one that is extremely restricted and reduced in the Humboldt Bay area. Riparian zones around Humboldt Bay today are only a fraction of their size compared to 150 years ago, as land has been drained, logged, and cleared for agriculture and residential, commercial, and industrial development. Humboldt Bay and its surrounding habitats are an important stopover point for hundreds of species of birds as they travel the Pacific Flyway, an “aerial highway” used by birds that nest in the far north and migrate to wintering areas in North and South America. Riparian habitat in particular is crucial habitat for many migratory and resident bird species that need the habitat for nesting, roosting, and foraging. Additionally, the wetland habitats around Humboldt Bay, including riparian zones, are important for over 40 species of mammals and over 100 species of fish and marine invertebrates.

The riparian restoration is proposed adjacent to Fickle Hill Creek, which historically was tidally influenced and continues to maintain tidal flux in its lower reach. Marine riparian zones serve similar functions to those described for freshwater systems and are likely to provide additional functions unique to nearshore ecosystems (Brennan & Culverwell 2004). Riparian areas contribute important organic debris that is transformed into nutrients, which support the marine food web. Wood, leaf litter, and other organic matter from riparian areas provide nutrients for life at the base of the food web. Riparian vegetation supports insects and other prey resources, which are eaten by juvenile salmon and other fish and wildlife. Riparian vegetation also provides cover – both for shade and protection purposes – for aquatic species such as salmonids, which need cool water temperatures for growth and survival and protection from predators such as egrets and herons. Riparian areas capture contaminants; by absorbing or filtering contaminated stormwater runoff, soils and vegetation in marine riparian areas can prevent pollutants from entering coastal waters. Healthy riparian areas support rich and diverse communities of animals that depend on the areas for feeding, breeding, refuge, movement, and migration. Salmonids and many other fish species feed on insects from marine riparian areas. If these areas are altered or eliminated, the food supply and, thus, the abundance of nearshore fish is likely to be reduced. Importantly, riparian areas serve as buffers for human health and safety. The marine riparian functions of water quality, soil stability, and the ability to absorb the impacts of storm surges and

other natural, physical assaults on shorelines have direct benefits to humanity. Flooding and storm events can be exacerbated in the absence of marine riparian areas, which can serve as protective buffers.

Thus, the restoration of riparian habitat in the Humboldt Bay area is integral to maintaining optimum populations of marine organisms and for the protection of human health, as is mandated by Section 30231.

The Commission notes that historically Fickle Hill Creek was tidally influenced in its lower reach. Currently there is a fish-friendly tidegate at the mouth of Gannon Slough that allows for muted tidal influence to the lower portion of the watershed, but restoring tidal influence to the proposed project area would require the flooding of existing infrastructure owned by the Pacific Gas & Electric Company (transmission lines) and the City of Eureka (municipal water pipeline) as well as community ball fields and private properties used for agricultural grazing. Therefore, while it is possible to restore Fickle Hill Creek to its historic channel configuration, as proposed, it is infeasible to restore the creek to its historic tidal influence.

As discussed above, this finding that the ~~proposed~~ project, **as amended**, constitutes “restoration purposes” is based, in part, on the assumption that the proposed project, **as amended**, will be successful in recreating the historic channel configuration and increasing stream channel habitat values. Should the project be unsuccessful, or worse, if the proposed filling and dredging impacts of the project actually result in long term degradation of the habitat, the proposed diking, filling, and dredging would not be for “restoration purposes.” To ensure that the proposed project achieves the objectives for which it is intended (*i.e.*, for the restoration of the historic channel configuration and an increase in instream habitat values), the Commission attached Special Condition No. 1 to the original permit and adds Special Condition No. 12 to the amendment. Special Condition No. 1 required the applicant to submit a final monitoring plan for measuring the success of the original restoration project. Special Condition No. 12 requires the applicant to submit a ~~final~~ **supplemental** monitoring plan for review and approval by the Executive Director prior to the issuance of the permit **amendment to address the proposed restoration activities in the amended development project area.** The **supplemental** monitoring plan **shall substantially conform to the monitoring plan approved the Executive Director for the original permit (Exhibit No. 6), which was** ~~is~~ required to outline a method for measuring and documenting the improvements in habitat value and diversity at the site, **except that the supplemental monitoring plan shall apply to the site of the additional restoration area. Improvements shall be documented** over the course of five years following project completion. Furthermore, Special Condition No. 12 requires the monitoring plan to include provisions for remediation to ensure that the goals and objectives of the wetland restoration project, **as amended**, are met.

Therefore, the Commission concludes that the ~~proposed~~ dredging and filling of stream channel wetlands for the restoration and enhancement of salmonid habitat **involved in the amended development** is permissible under Section 30233(a)(6) for “restoration purposes.” Although the ~~proposed~~ riparian restoration project, **as amended**, will not necessarily reestablish the exact same configuration of wetland habitat that historically existed in the area, the ~~proposed~~

enhancements and restoration of freshwater wetlands entail actions taken in converted or degraded natural wetlands that will result in the reestablishment of landscape-integrated ecological processes associated with wetland habitats. Therefore, the Commission finds that the proposed wetland enhancements **associated with the amended development** are consistent with the definition of restoration and constitute filling and dredging for restoration purposes consistent with Section 30233(a)(6).

b. Alternatives Analysis

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

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

Alternatives to the proposed project that were examined include (1) the no-project alternative; and (2) alternative sites; and (3) alternative methods. As explained below, each of these alternatives are infeasible and/or do not result in a project that is less environmentally damaging than the proposed project.

(i) No-Project Alternative

The "no project" alternative would maintain the *status quo* of the site and would not restore over ~~1,900~~ **2,100** feet of intermittent riverine wetlands as proposed. **Previously** Existing conditions on the project site consisted of an approximately ~~1,600~~ **1,800**-foot-long reach of channelized, straightened, and bermed creek habitat, which historically was altered for flood control and agricultural use purposes. Under the "no project" alternative, the existing creek reach would **have** continued to function as a degraded, altered watercourse devoid of habitat value for marine resources such as juvenile salmonids. Under the "no project" alternative, there would ~~be~~ **have been** no restoration of stream sinuosity, no increase in instream cover, and no increase in riparian cover – all of which are essential components of a healthy stream environment capable of supporting marine resources such as over-wintering juvenile coho salmon. Furthermore, the biological productivity of the coastal waters would not be improved, including improved habitat value for a diversity of sensitive plant and animal species and habitats, including riparian vegetation, anadromous salmonids, a variety of shorebirds, waterfowl, and passerines, and others. Accordingly, taking into consideration the economic, environmental, and social factors, the "no project" option is not a feasible less environmentally damaging alternative than the proposed **amended** project as conditioned.

(ii) Alternative Sites

The City explored this alternative in its preparation to acquire the subject property and implement the proposed restoration/enhancement activities in cooperation with the U.S. Fish and Wildlife Service (FWS) and the California Coastal Conservancy using grant funding from the FWS National Coastal Wetlands Grant Program. Certain types of restoration and enhancement activities could occur on other parcels located near the project site if there were willing

landowners. However, according to the City, other private property owners are not interested in selling or leasing their properties. At this time, no other feasible sites are available for acquisition or implementing of enhancement and restoration work. During the site evaluation process, the proposed acquisition areas and existing City-owned lands were identified as the only feasible sites for FWS-funded restoration due to ownership and land use constraints. Furthermore, as the ~~City is proposing to restore~~ **amended development involves restoring** the historic configuration of the Fickle Hill Creek channel using the 1870 historic map as a reference, the proposed site is the only feasible location for this restoration activity given the available data. Therefore, implementing the project at an alternative location is not a feasible less environmentally damaging alternative than the proposed **amended** project as conditioned.

(iii) *Alternative Methods*

~~Under the proposed method for~~ **To** reconfiguring the creek channel to its historic creek alignment, heavy equipment ~~will be~~ **is** used to excavate the new meandering channel and to fill in the existing straightened channel. Heavy equipment is required to complete the restoration work, which ~~will~~ **requires** the excavation and removal of over 1,200 cubic yards of material. Although avoiding the use of heavy equipment would help to reduce environmental effects, a feasible alternative to heavy equipment does not exist.

Under the proposed work, **as amended**, equipment access and temporary stockpiling areas will be sited in grazed seasonal wetland habitat. The applicant proposes to access the site off of Highway 255 (near the California Highway Patrol station), with construction equipment traversing southward approximately ¼-mile across grazed seasonal wetlands to the project area. As work is proceeding along the channel, the City proposes to temporarily stockpile sod as needed along the creek corridor to enable it to be placed as the top layer of fill within the filled channel. The City proposes to use an approximately 20-foot-wide area around the length of the existing channel and the proposed reconfigured channel for the construction work area and the temporary stockpiling of sod during excavation. Although siting the construction access and temporary stockpiling areas outside of seasonal wetlands would help to reduce environmental effects, a feasible alternative to siting the access and stockpiling areas within seasonal wetlands does not exist, since there are no upland alternatives within the project vicinity. However, the ~~City proposes to~~ **development as amended will** minimize impacts to grazed seasonal wetland habitat by restricting the construction window to the dry season when seasonal wetland soils are hardened and avoiding work during unforeseen rainfall events.

Another alternative method to the proposed project, **as amended**, would be to construct the project in a way that restores tidal influence to the project reach. As stated above, historically Fickle Hill Creek was tidally influenced in its lower reach, and currently there is a fish-friendly tidegate at the mouth of Gannon Slough that allows for muted tidal influence to the lower portion of the watershed. However, fully restoring tidal influence to the proposed project area would require the flooding of existing infrastructure owned by the PG&E and the City of Eureka (municipal water pipeline) as well as community ball fields and private properties used for agricultural grazing. Therefore, while it is possible to restore Fickle Hill Creek to its historic

channel configuration, as proposed, it is infeasible to restore the creek to its historic tidal influence.

Therefore, implementing the project, as amended, using alternative methods is not a feasible less environmentally damaging alternative than the proposed project as conditioned.

Conclusion

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

c. Feasible Mitigation Measures

The third test set forth by Section 30233 is whether feasible mitigation measures have been provided to minimize adverse environmental impacts. The development, as amended, ~~would be~~ is located within and around coastal waters and wetlands. Depending on the manner in which the proposed project is conducted, the significant adverse impacts of the project may include (1) impacts to fish and wildlife habitat from water pollution in the form of sedimentation or debris entering coastal waters and wetlands; (2) introduction through re-planting of exotic invasive plants species that could compete with native vegetation and negate the habitat improvement they would provide; (3) use of certain rodenticides that could deleteriously bio-accumulate in predator bird species; (4) impacts to adjacent seasonal wetlands from construction activities; and (5) stranding of fish in the channel during reconstruction of the channel. Overall, the project, as amended, ~~would~~ enhances wetland habitat values and ~~would produce~~ generally only beneficial environmental effects. However, the proposed project, as amended, has been conditioned to ensure that habitat enhancement results and that potentially significant adverse impacts are minimized. The potential impacts and their mitigation are discussed below in the following sections.

(i) Sedimentation Impacts to Aquatic Habitat & Water Quality

The proposed project, as amended, is being undertaken to benefit marine resources such as salmonids as well as passerines, waterfowl, and other water-associated wildlife. The existing creek provides habitat for a number of fish and amphibian species, and the surrounding seasonal wetlands provide habitat to a wide range of avian species.

Potential adverse impacts to both existing and to-be-restored/enhanced fish and wildlife habitat related water quality could occur in the form of sedimentation or debris from channel excavation work. Additionally, impacts to sensitive fish species, including coho salmon (*Oncorhynchus kisutch*), steelhead (*O. mykiss*), and coastal cutthroat trout (*O. clarki clarki*), could occur during project activities within Fickle Hill Creek. The project, as amended, involves dredging a new creek channel to match the 1870 historic channel configuration and filling in the existing straightened creek channel. If not constructed properly, fish stranding could occur within this restored stream habitat.

Although the project description states that such impacts would be prevented and minimized by conducting the ground-disturbing work during the dry weather season and through incorporating various other best management practices, the application provides few details as to precisely how this excavation would be performed relative to the potential for materials to become entrained into coastal waters during the construction and the potential for impacts to surrounding grazed seasonal wetlands.

To ensure that adverse impacts to water quality do not occur from construction activities, the Commission reattaches **without changes** Special Condition Nos. 2 and 3 and adds new **Special Condition No. 13 to the amendment**. Special Condition No. 2 requires the applicant to undertake the development, as amended, pursuant to certain construction responsibilities. These include, but are not limited to, the following: (a) no construction materials, debris, or waste are to be placed or stored where they may enter coastal waters; (b) any and all debris resulting from construction activities shall be removed from the project site and disposed of at an authorized disposal location; (c) the construction window shall be limited to the dry season (June 1-November 15), and any grading between October 16 and November 15 shall only be conducted if conditions remain dry, the predicted chance of rain is less than 30 percent, and appropriate BMPs are in place; (d) no construction shall occur within tidal waters or flowing stream channels; (e) 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; (f) any debris discharged into coastal waters shall be recovered immediately and disposed of properly; (g) 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. 4, mulched with weed-free rice straw, and/or replaced with sod consistent with subsection (J) below; (h) any fueling and maintenance of construction equipment shall occur within upland areas outside of environmentally sensitive habitat areas or within designated staging areas; and (i) 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 any accidental spill shall be rapidly contained and cleaned up, and meet other specifications. Special Condition No. 3 similarly requires the applicant to submit, for the Executive Director's review and approval, an erosion and runoff control plan that is to include certain specified water quality best management practices for minimizing impacts to coastal waters and surrounding wetlands that are consistent with the construction responsibilities required by Special Condition No. 2. **Special Condition No. 13 requires submittal of a supplemental erosion and runoff control plan for the Executive Director's review and approval prior to permit issuance to specify water quality BMPs for the amended work area. The supplemental erosion and runoff control plan shall substantially conform to the plan approved by the Executive Director for the original permit (Exhibit No. 7).**

(ii) *Introduction of Exotic Invasive Plants*

The use of non-invasive plant species adjacent to environmentally sensitive habitat areas (ESHAs) is critical to protecting such areas from disturbance. If invasive species are planted

adjacent to an ESHA they can displace native species and alter the composition, function, and biological productivity of the ESHA.

The City is proposing to set aside the sod layer from the reconfigured channel excavation and use it as topfill on the old channel that is to be filled. Special Condition No. 2-(J) requires that the City, as proposed, stockpile separately the top six to ten inches (6-10”) of excavated material within grazed seasonal wetlands (which contains the root masses, rhizomes, seeds, and accumulated organic material of the vegetation that dominates these seasonal wetlands), and reintroduce this sod layer into the filled (old) Fickle Hill Creek channel as the top fill material as soon as possible following excavation.

Additionally, the City proposes to plant approximately ~~2.5~~ 3 acres of native riparian vegetation along the reconfigured creek channel. However, the proposed project does not further specify the source or composition of the plants nor precludes the planting of other plant species beyond those identified in the permit application.

To ensure that no invasive plant species are seeded in the project area, Special Condition No. 4 **(which the Commission reattaches without changes to remain in full force and effect)** prohibits the planting of any 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. Furthermore, no plant species listed as a “noxious weed” by the governments of the State of California or the United States are to be utilized in the revegetation portion of the project.

(iii) Use of Anticoagulant-based Rodenticides

To help in the establishment of vegetation, rodenticides are sometimes used to prevent rats, moles, voles, and other similar small animals from eating the newly planted saplings. Certain rodenticides, particularly those utilizing blood anticoagulant compounds such as brodifacoum, bromadiolone and diphacinone, have been found to pose significant primary and secondary risks to non-target wildlife present in urban and urban/wildland areas. As the target species are preyed upon by raptors or other environmentally sensitive predators and scavengers, these compounds can bio-accumulate in the animals that have consumed the rodents to concentrations toxic to the ingesting non-target species.

To avoid this potential cumulative impact to environmentally sensitive wildlife species, Special Condition No. 4 contains a prohibition on the use of such anticoagulant-based rodenticides.

(iv) Impacts to Adjacent Seasonal Wetlands

The ~~proposed~~ project, **as amended**, will be conducted in and around seasonal wetlands. The wetland vegetation on the site is not particularly abundant or diverse in comparison with other wetland habitats around Humboldt Bay because of its current and historic use as pasture for cattle grazing. Nonetheless, the area does provide some wetland habitat including foraging habitat for a diversity of water-associated wildlife including waterfowl, wading birds, and

shorebirds. The wetlands also function to provide a certain degree of water quality protection, as they temporarily detain rainwater runoff and allow for the removal of impurities entrained in stormwater flowing over the pasture lands.

Impacts to seasonal wetlands could occur during construction activities if specific protocols are not followed. For example, heavy equipment used for proposed restoration activities could compact the soils of surrounding wetland areas if specific access routes and staging areas are not designated and delineated. The applicant ~~has~~ did not indicate the locations of construction access routes, equipment staging areas, or stockpiling **and disposal** sites for spoils material (e.g., the sod layer that is proposed to be temporarily stored and reintroduced into the filled channel).

Therefore, the Commission attaches **d** Special Condition No. 5 **to the original permit**. This condition requires **d** that the applicant submit, prior to permit issuance for the review and approval of the Executive Director, a final equipment staging and stockpiling plan, which designates areas for equipment staging and the temporary stockpiling of construction and fill materials. The plan shall demonstrate, among other things, that (a) no excavated materials to be removed shall be temporarily placed or stored during grading activities outside of designated staging areas where it may be subject to entering wetlands or other coastal waters; (b) erosion control techniques shall be implemented around the temporarily stored spoil material and (c) all staging and stockpiling areas to be located in seasonal wetlands shall be limited to 20-foot-wide areas along both sides of the existing and the reconfigured channels. **The applicant has indicated in its permit amendment request the locations of construction access routes, equipment staging areas, or stockpiling sites for spoils material that would be used for the additional development involved in Permit Amendment No. 1-09-020-A1. As proposed, the construction and staging activities incorporate the same mitigation measures that Special Condition No. 5 required be incorporated in the final equipment staging and stockpiling plan for the originally approved development.** Additionally, Special Condition No. 13, discussed above, requires the applicant to submit, for the Executive Director's review and approval, an erosion and runoff control plan that is to include certain specified water quality best management practices for minimizing impacts to coastal wetlands.

(v) *Fish Stranding*

The potential for fish to be present in the creek is only an issue during the rainy season or shortly thereafter, as the intermittent creek channel dries out during the summer months, and cannot support fish. The applicant proposes to construct the project, **as amended**, only when the creek is dry. Special Condition No. 2-C and 2-D, respectively, restrict the construction window to the dry season period of June 15 through November 15, and prohibit work within flowing stream channels.

Conclusion

The Commission finds that, as conditioned, feasible mitigation measures have been provided to minimize adverse environmental effects consistent with Section 30233 of the Coastal Act.

d. Maintenance & Enhancement of Biological Productivity & Functional Capacity

The fourth general limitation set by Section 30233 and 30231 is that any proposed dredging 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 state that marine resources shall be maintained, enhanced, and where feasible, restored. Sections 30230 and 30231 also state that the biological productivity of coastal waters appropriate to maintain optimum populations of all species of marine organisms and protect human health shall be maintained and, where feasible, restored.

As discussed above, the conditions of the permit as amended will ensure that the ~~project~~ development as amended will not have significant adverse impacts on the water quality of any of the coastal waters in the project area and will ensure that the project construction will not adversely affect the biological productivity and functional capacity coastal waters or wetlands. Furthermore, the project's stated purpose is to restore and enhance the biological productivity of coastal wetlands and waters, and conditions of the permit as amended will ensure that the site is monitored for achievement of these goals. The ~~proposed~~ restoration of Fickle Hill Creek will directly restore and enhance marine resources and biological productivity of coastal waters appropriate to maintain optimum populations of marine organisms including salmonids, waterfowl, and other water-associated wildlife. There are various sensitive fish species that have the potential to occur in the project area, including coho salmon, Chinook salmon, steelhead trout, and coastal cutthroat trout. There is approximately ~~4,600~~ 1,809 feet of existing low-quality habitat in the project area for various sensitive fish species, and the project proposes to restore approximately ~~1,900~~ 2,100 feet of salmonid winter rearing habitat by reconfiguring the creek channel (to restore its historic sinuosity), installing instream habitat structures, and planting ~~2.5~~ 3 acres of riparian vegetation within the proposed restoration area. Studies have shown that small intermittent streams such as Fickle Hill Creek contribute disproportionately to juvenile coho salmon winter growth and survival because they offer backwater refugia from the high winter flows of downstream waters (in this case the higher flows or the larger Beith and Campbell Creeks). This is particularly true where main stem downstream habitats have been simplified by human activities (as is the case in this area). In addition to the slower backwater refugia, the increased riparian vegetation (which currently is absent along the existing straightened channel) improves the food supply of the coho and other salmonids as well as provides nesting, roosting, and resting habitat for numerous types of marine shorebirds, freshwater waterfowl, and passerines. The riparian vegetation also provides cover for the salmonids, in the form of shade (necessary to keep water temperatures cool for optimum growth and survival of the fish) and protection from predators. Importantly, riparian areas serve as buffers for human health and safety. The marine riparian functions of water quality, soil stability, and the ability to absorb the impacts of storm surges and other natural, physical assaults on shorelines have direct benefits to humanity. Flooding and storm events can be exacerbated in the absence of marine riparian areas, which can serve as protective buffers. The ~~proposed~~ restoration and enhancements are needed to help restore habitat diversity within Humboldt Bay and assist in the recovery of listed marine salmonid species including coho salmon, Chinook salmon, steelhead, and coastal cutthroat trout.

Therefore, the Commission finds that the amended development ~~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 Sections 30233, 30230, and 30231 of the Coastal Act.

D. Conversion of Agricultural Lands

1. Applicable Coastal Act Policies and Standards:

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 areas 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 30250.⁴*

(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.*

Coastal Act Section 30242 states as follows:

All other lands suitable for agricultural use shall not be converted to nonagricultural uses unless (1) 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.

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

⁴ The portion of referenced Section 30250 applicable to this project type and location [sub-section (a)] requires that, “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.”

"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.

Coastal Act Section 30250 states in pertinent part 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.

2. Consistency Analysis:

Coastal Act Sections 30241 and 30242 require the protection of prime agricultural lands⁵ and sets limits on the conversion of all agricultural lands to non-agricultural uses.

The total acreage of the City's property within the larger Baylands project area, within which the subject project area is located, is 588 acres. Currently the City leases 567 acres of the overall property to three local ranchers for seasonal cattle grazing. The City plans to continue to lease the property to the same three ranchers post project implementation. The proposed project, **as amended**, will reduce the total amount of available grazing land by ~~2.5~~ **3** acres (i.e., 0.4 percent or 10 "animal unit months"), so that ~~564.5~~ acres will remain in agricultural production post project implementation.

Given the fine sediment size generally associated with fluvially deposited soil materials within bays and estuaries, the low relief of the area, the relatively shallow water table, and the limited amount of tillage and organic material or other soils component amendments made to the site over the last century since their reclamation, the site's seasonally waterlogged soils and their high bulk density severely limit the types of agricultural activities that may be feasibly undertaken at the site.

a. Maintaining Maximized Production of Prime Agricultural Land

Based on information derived from the Natural Resources Conservation Service (NRCS), the majority of the soils in the project area are mapped as Occidental, 0-2 percent slopes. This soil series consists of very deep, very poorly drained, saline, silty clay loam soils on reclaimed salt marshes and tidal marshes on alluvial plains. They are identified as hydric soils and recognized as having several impediments to extensive agricultural uses. According to the NRCS, natural

⁵ Coastal Act Section 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.

vegetation for this soil type is estimated to have been “perennial grasses, rushes, and sedges and salt tolerant varieties of same.” As a result, the NRCS has assigned Class VII classification to the project site soils as a locale which has “severe limitations that reduce the choice of plants or require special conservation practices, or both.” Thus, under the NRCS land capability classification system, the soils at the project site do not meet the first criterion for the definition of prime agricultural soils.

According to Soils of Western Humboldt County, California (McLaughlin & Harradine 1965), the project site contains mostly Bayside silty clay loam soils with 0-3% slopes. The Bayside soils have a Storie Index rating between 36 and 49. Thus, the project area does not qualify as prime agricultural land under the second prong of the Coastal Act’s definition.

The third potential qualifying definition of prime agricultural land – the ability to support livestock used for the production of food and fiber with an annual carrying capacity equivalent to at least 1 animal-unit per acre as defined by the United States Department of Agriculture – similarly does not apply to the project site. Based on correspondence from, Gary Markegard, County Farm Advisor for the U.C. Cooperative Extension, the low-lying, poorly drained, saltwater intruded, and flood-prone soils along the northern reclaimed fringes of Humboldt Bay typically require three acres per animal-unit. Thus, the project site supports only 0.33 Animal Unit Months (AUMs) per acre.

Finally, with regard to the site’s potential qualification as prime agricultural land based upon its potential for commercial fruit or nut crop production at specified minimal yields, the project area similarly fails to meet the criterion. Due to the maritime-influenced climate of the western Humboldt County, commercial nut production is precluded along the immediate coastal areas by the significant precipitation and limited number of warm, overcast-free days to allow for full seed maturation. In addition, due to the high bulk density of the soils underlying the project site and the relatively shallow water table, fruit and berry crops suitable for the North Coast’s temperate setting are similarly restricted to areas further inland, primarily on uplifted marine terraces and within well developed river floodplain areas with improved drainage and more friable soil characteristics. As a result, fruit and nut production on an economically successful commercial basis is not currently, nor has ever been historically pursued in open coastal environs, such as the project area.

3. Conclusion

Therefore, based upon the above discussed set of conditions at the project site, the Commission finds that the subject site does not contain prime agricultural soils or livestock and/or crop productivity potential that would otherwise qualify the subject property as “prime agricultural land.”

b. Minimizing Conflicts Between Agricultural and Urban Land Uses

As stated above, the proposed **amended** project will reduce the total amount of available grazing land (currently 567 acres) by ~~2.5~~ **3** acres (i.e., to 564.5 acres, a reduction of 0.4 percent). The project, **as amended**, ~~would~~ results in a reduction of 10 “animal unit months” (AUMs), which is

the amount of forage necessary to feed a mature cow (or its equivalent) for one month. This equates to less than one animal per year, as the soils in this area require 3 acres per animal-unit. According to the applicant, the City currently leases the property to three local ranches for seasonal grazing purposes and will continue to lease the property to the same three ranchers post project implementation.

Section 30241 requires that conflicts between urban and agricultural land uses be minimized through, among other things, limiting conversions of agricultural lands. Section 30241(b) limits 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. 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. Finally, Section 30241(d) requires the development of available lands not suited for agriculture prior to the conversion of agricultural lands.

The ~~proposed~~ conversion of **a total of 2.5 3** acres of agricultural lands in the 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 site is located approximately one half mile south and west of the developed portions of Arcata, and all of the lands surrounding the project site are undeveloped and used primarily either for agricultural uses or natural resources uses. In addition, there are many areas of undeveloped land within the coastal zone around the Humboldt Bay region that are not suitable for agriculture that have yet to be developed. Moreover, although the proposed conversion will reduce the total amount of available grazing land by only a very small margin (0.4 percent), the Commission finds that the cumulative loss of agricultural lands in the project vicinity through the course of various restoration projects over the past six years is significant (e.g., see CDP Nos. 1-03-031 and 1-05-017).

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, **as amended**, on the currently grazed portions of the site would not be consistent with the limitation on conversion of agricultural lands of Section 30241(b), (c), and (d) and would not serve to minimize conflicts between agricultural and urban land uses.

4. Conclusion

For all of the reasons stated above, the Commission finds the permanent loss of the subject **2.5 3** acres of agricultural land is not consistent with the provisions of Section 30241 cited above.

c. **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. In the case of the subject parcel, 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 in the future. Thus, continued agricultural use is feasible, and conversion of the land to non-agricultural use under the proposed project would not preserve prime agricultural land or concentrate development, which the Coastal Act prescribes as the basis for allowing conversion. For these reasons, the proposed conversion of agricultural lands in the project area would be inconsistent with the requirements of Coastal Act Section 30242.

E. Conflict Resolution

As noted above, the proposed restoration of intermittent riverine wetlands surrounded by ~~2.5~~ **3** acres of riparian plantings in the project area would convert ~~2.5~~ **3** acres of agricultural land inconsistent with the provisions of Sections 30241 and 30242. However, as also noted above, to not approve the project, **as amended**, would result in a failure to restore marine resources and the biological productivity of coastal wetlands and waters that would be inconsistent with the mandates of Sections 30230 and 30231 of the Coastal Act. Section 30230 mandates that marine resources shall be maintained and enhanced, and where feasible, restored. Section 30231 mandates that the biological productivity of coastal waters appropriate to maintain optimum populations of marine organisms shall be maintained, and where feasible, restored.

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 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, enhanced, and where feasible, restored*”). 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 eight 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 **As Amended** Presents a Conflict

The Commission finds that the ~~proposed project~~ **development, as amended**, presents a true conflict between Chapter 3 policies of the Coastal Act. The proposed restoration of stream habitat and riparian cover for the benefit of juvenile salmonid rearing habitat ~~would~~ **converts** agricultural land in a manner inconsistent with the provisions of Sections 30241 and 30242 of the Coastal Act. However, to not approve the project, **as amended**, 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. Sections 30230 and 30231 mandate that marine resources shall be maintained and enhanced, and where feasible, restored. Sections 30230 and 30231 also mandate that the biological productivity of coastal waters appropriate to maintain optimum populations of marine organisms and protect human health shall be maintained and, where feasible, restored.

The ~~proposed~~ restoration of Fickle Hill Creek, including channel reconfiguration, installation of instream habitat structures, and planting of ~~2.5~~ **3** acres of riparian vegetation, ~~will~~ directly

restores and enhance marine resources and biological productivity of coastal waters appropriate to maintain optimum populations of marine organisms including salmonids, waterfowl, and other water-associated wildlife. There are various sensitive fish species that have the potential to occur in the project area. The Southern Oregon/Northern California Coast Evolutionary Significant Unit (ESU) of coho salmon and the Coastal California ESU of Chinook salmon are listed under the federal Endangered Species Act (ESA) as “threatened.” Chinook salmon (*Oncorhynchus tshawytscha*) spawn in upstream reaches of stream tributaries to Humboldt Bay (e.g., Freshwater Creek), but young fish are believed to spend several months during their first year “rearing” in the estuary. Coho salmon (*O. kisutch*) also spawn in upstream reaches, and their young also spend time in the estuary before first entering the ocean. In addition, adults of both species spend time in the estuary when returning to the basin to spawn, “holding” there while waiting for fall rains to bring river levels up enough to allow upstream migration. Another salmonid species of concern in the project vicinity is steelhead (*O. mykiss*), a seagoing trout. Steelhead have a life history similar to that of Chinook and coho, although the steelhead (which is closely related to non-seagoing rainbow trout), find appropriate habitat conditions in smaller streams, and in more upstream reaches than do the larger salmonids. The Northern California Steelhead ESU is presently listed under the federal ESA as “threatened.” An additional fish species of concern in the project area is the coastal cutthroat trout (*O. clarki clarki*), a resident salmonid in coastal streams in northern California and southern Oregon. This species is a “species of special concern” for the Department of Fish and Game, but is not listed under either the federal or state ESAs. Coastal cutthroat trout have been documented in many streams in the Humboldt Bay basin, and are presumed to be present in all the perennially flowing tributary streams to Humboldt Bay. All of the life requisites for this species are provided by the conditions in the streams in which it resides.

As discussed above, there is approximately ~~1,600~~ **1,800** feet of existing low-quality habitat in the project area for various sensitive fish species, and the project **as amended includes** ~~proposes to~~ **restoration** approximately ~~1,900~~ **2,100** feet of salmonid winter rearing habitat by reconfiguring the creek channel (to restore its historic sinuosity), installing instream habitat structures, and planting ~~2.5~~ **3** acres of riparian vegetation within the proposed restoration area. Studies have shown that small intermittent streams such as Fickle Hill Creek contribute disproportionately to juvenile coho salmon winter growth and survival because they offer backwater refugia from the high winter flows of downstream waters (in this case the higher flows of the larger Beith and Campbell Creeks). This is particularly true where main stem downstream habitats have been simplified by human activities (as is the case in this area). In addition to the slower backwater refugia, the increased riparian vegetation (which currently is absent along the existing straightened channel) improves the food supply of the coho and other salmonids as well as provides nesting, roosting, and resting habitat for numerous types of marine shorebirds, freshwater waterfowl, and passerines. The riparian vegetation also provides cover for the salmonids, in the form of shade (necessary to keep water temperatures cool for optimum growth and survival of the fish) and protection from predators. The proposed restoration and enhancements are needed to help restore habitat diversity within Humboldt Bay and assist in the recovery of listed marine salmonid species including coho salmon, Chinook salmon, steelhead, and coastal cutthroat trout.

Importantly, riparian areas serve as buffers for human health and safety. The marine riparian functions of water quality, soil stability, and the ability to absorb the impacts of storm surges and other natural, physical assaults on shorelines have direct benefits to humanity. Flooding and storm events can be exacerbated in the absence of marine riparian areas, which can serve as protective buffers.

Although the ~~proposed~~ project, **as amended**, is inconsistent with the requirements of Sections 30241 and 30242 that protect productive agricultural land and limit the conversion of agricultural land, denial would preclude achieving Sections 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 **as amended**, 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 were both feasible and less environmentally damaging.

a. 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 include (a) alternative sites, (b) alternative methods or configurations of project features, and (c) the "no project" alternative. These various alternatives are discussed below.

(i) Alternative Sites

Restoration of the former habitat conditions that existed on a site prior to manipulation by humans within the meaning of Sections 30230, 30231 and 30233(a) of the Coastal Act is inherently site specific. As discussed previously, implicit in the common definition of restoration is the understanding that the restoration entails returning something to a prior state. A site cannot be returned to a prior state by performing wetland enhancement or creation work at some other site. However, as also discussed previously, restoration is also defined as reestablishing ecological processes, functions, and biotic/abiotic linkages that lead to a persistent, resilient system integrated within its landscape that may not necessarily result in a return to historic locations or conditions with the subject wetland area. Thus, restoration of ecological processes, functions, and biotic/abiotic linkages at an alternative location within the landscape of the particular wetland system involved could under certain circumstances be found to be consistent with Sections 30230, 30231 and 30233(a) of the Coastal Act. However, no such feasible alternative location other than the project site exists in this case. Nearly the entire 567-acre project parcel is agricultural land, so there is no other location on the parcel where the restoration could be carried out that would not result in a conversion of agricultural land inconsistent with Sections 30241 and 30242 of the Coastal Act. Similarly, if restoration of another site to restore a combination of stream channel and riparian habitats was considered, no feasible off-site locations that would not result in conversions of agricultural land inconsistent with Sections 30241 and 30242 have been identified. Much of the land surrounding Humboldt Bay that could support the habitat types to be restored has been diked, drained, and cleared for agricultural

purposes, and thus the proposed site is one of the few locations where the proposed restoration project could occur consistent with Section 30233(a)(6) as discussed above (Finding IV-C). Therefore, implementing the project, as amended, at an alternative location is not a feasible alternative that is consistent with all relevant Chapter 3 policies.

(ii) Alternative Configuration of Project Features

Feasible restoration of the site is not dependent on the exact site plan or configuration of stream channel restoration and riparian habitat 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 which Sections 30230 and 30231 mandate to occur if feasible. For example, the proposed riparian habitat could be extended further back from the creek banks to achieve a greater amount of riparian habitat restoration. This alternative configuration or layout of the project would achieve similar results, but it would not avoid conversion of agricultural lands to riparian habitat in a manner inconsistent with Sections 30241 and 30242 of the Coastal Act. Alternatively, the channel could be reconfigured as proposed but without planting ~~2.5~~ 3 acres of riparian vegetation along the newly configured banks. The project would still result in restored stream sinuosity and instream habitat improvement (i.e., the proposed log/boulder cover structures) that would result in the conversion of some existing agricultural grazing area, and this alternative would lack the riparian cover that is so integral to salmonid restoration. As discussed above in Finding IV-C, riparian vegetation contributes important organic debris that is transformed into nutrients, which support the marine food web. Wood, leaf litter, and other organic matter from riparian areas provide nutrients for life at the base of the food web. Riparian vegetation also supports insects and other prey resources, which are eaten by juvenile salmon and other fish and wildlife. Additionally, riparian areas capture contaminants; by absorbing or filtering contaminated stormwater runoff, soils and vegetation in marine riparian areas can prevent pollutants from entering coastal waters. Moreover, healthy riparian areas support rich and diverse communities of animals that depend on the areas for feeding, breeding, refuge, movement, and migration. Salmonids and many other fish species feed on insects from marine riparian areas. If these areas are altered or eliminated, the food supply and, thus, the abundance of nearshore fish is likely to be reduced. Importantly, riparian areas serve as buffers for human health and safety. The marine riparian functions of water quality, soil stability, and the ability to absorb the impacts of flood events and other natural, physical assaults on shorelines have direct benefits to humanity. Flooding and storm events can be exacerbated in the absence of marine riparian areas, which can serve as protective buffers.

As (1) virtually all of the larger Baylands project area except for the creeks themselves is used agriculturally, (2) the use of any portion of these areas for restoration of riparian habitat would preclude agricultural use and convert agricultural land, and (3) simply reducing the size of the restoration project by eliminating the riparian restoration component of the project would not restore the biological productivity of the stream in a manner that would maintain optimum populations of the salmon and marine shorebird, no alternative configuration of the project site

would avoid conversion of agricultural land inconsistent with Sections 30241 and 30242 of the Coastal Act. Therefore, none of the alternative configurations of the restoration project are a feasible alternative that is consistent with all Chapter 3 policies.

(iii) “No Project” Alternative

The “no project” alternative would maintain the *status quo* of the site and would not restore the historic meandering configuration of Fickle Hill Creek, along with its associated riparian habitat and benefits to overwintering juvenile salmonids, as proposed. Existing conditions on the project site consist of actively used agricultural land (farmed seasonal wetlands) used for seasonal cattle grazing. Currently, there is no existing riparian vegetation along the existing straightened creek channel to buffer the creek from the impacts of cattle. Under the “no project” alternative, the land would continue to be used for seasonal agricultural grazing (as it would under the proposed project), but there would be no restored and improved habitat for marine resources, and the biological productivity of the coastal wetlands and waters appropriate to maintain optimum populations of marine organisms would thus not be restored. Existing habitats for rearing salmonids, passerines, waterfowl, and other water-associated wildlife would continue to be limited on the site. Existing cattle grazing too close to the creek would continue to erode and denude the creek banks, and there would be no riparian buffer functions of water quality, soil stability, contribution of organic debris to the marine food web, and the ability to absorb the impacts of flood events. Therefore, the Commission finds that the “no project” alternative would have significant impacts to coastal resources that would be inconsistent with Section 30230’s mandate to, where feasible, restore marine resources and maintain and improve biological productivity. Therefore, the “no project” alternative is not a feasible alternative that is consistent with all relevant Chapter 3 policies.

b. 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. The Commission further finds that based on the alternatives analysis above, the ~~proposed project~~ **amended development** as conditioned is the least environmentally damaging feasible alternative, and therefore the project **as amended** is consistent with the requirements of Section 30233(a) that the proposed fill project has no feasible less environmentally damaging alternative.

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, **as amended**, would be more significant than the project’s agricultural conversion impacts. Denying the ~~project~~ **amended development** because of its inconsistency with Sections 30241 and 30242 would avoid the conversion of ~~2.5~~ **3** acres of agricultural grazing land. The Commission further finds that as the proposed juvenile salmonid habitat enhancements 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 as amended would restore habitats (juvenile coho winter rearing habitat and riparian habitat) around Humboldt Bay that have been tremendously reduced over the past century consistent with Sections 30230 and 30231. The proposed restoration of Fickle Hill Creek, including channel reconfiguration, installation of instream habitat structures, and planting of ~~2.5~~ 3 acres of riparian vegetation, will directly restore and enhance marine resources including salmonids, waterfowl, and other water-associated wildlife. As discussed above, studies have shown that small intermittent streams such as Fickle Hill Creek contribute disproportionately to juvenile coho salmon winter growth and survival because they offer backwater refugia from the high winter flows of downstream waters. This is particularly true where main stem downstream habitats have been simplified by human activities (as is the case in this area). In addition to the slower backwater refugia, the increased riparian vegetation (which currently is absent along the existing straightened channel) improves the food supply of the coho and other salmonids as well as provides nesting, roosting, and resting habitat for numerous types of shorebirds, waterfowl, and passerines. The proposed enhancements are needed to help restore habitat diversity within Humboldt Bay and assist in the recovery of listed marine salmonid species including coho salmon, Chinook salmon, steelhead, and coastal cutthroat trout. Importantly, riparian areas serve as buffers for human health and safety. The marine riparian functions of water quality, soil stability, and the ability to absorb the impacts of storm surges and other natural, physical assaults on shorelines have direct benefits to humanity. Flooding and storm events can be exacerbated in the absence of marine riparian areas, which can serve as protective buffers. The Commission finds that the restoration of ~~1,900~~ 2,100 feet of intermittent riverine wetlands and ~~2.5~~ 3 acres of riparian vegetation, which would maintain and enhance marine resources necessary to maintain the biological productivity of existing degraded wetlands, maintain optimum populations of all species of marine organisms and protect human health ~~would be~~ is more protective of coastal resources than the impacts of the conversion of ~~2.5~~ 3 acres of agricultural land, and its associated loss of less than one animal unit.

As discussed above in Finding IV-C, to ensure that the maintenance and enhancement of marine resources and of 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. 1 through 5 and 12-13. These conditions require that the applicant submit various final plans, including ~~a~~ final restoration and enhancement monitoring plans, a final erosion and runoff control plan, and final debris disposal and equipment access, staging, and stockpiling plans. Additionally, Special Condition No. 2 requires that the applicant carry out the project in accordance with various construction protocols to ensure the protection of coastal waters and wetlands, and Special Condition No. 4 requires revegetation of the site to be carried out according to specified standards and limitations. The Commission finds that without Special Condition Nos. 1 through 5 and 12-13, the ~~proposed project~~ amended development 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 applicant has not proposed any mitigation to compensate for the loss of agricultural land caused by the project.

The Commission finds that in this particular case because (1) the ~~project~~ **amended development** proposes to re-establish prior habitat conditions and the processes that create those conditions in a converted and degraded natural wetland (agricultural land), and all of the agricultural land to be converted will be used solely for this purpose; (2) the ~~project~~ **amended development**, as conditioned, will result in significant improvements in habitat value and diversity in a self-sustaining, persistent fashion independent of the need for repeated maintenance or manipulation to uphold the habitat function; (3) the agricultural land being converted is low quality, available only on a seasonal basis, and does not possess any of the characteristics of “prime agricultural land” as defined by Section 51201(c) of the California Government Code (see Finding IV-F above); and (4) approximately 564.5 of the 567 acres of land on the parcel currently in agricultural production will be retained for agricultural production, no agricultural mitigation is necessary to compensate for the conversion of ~~2.5~~ **3** acres of agricultural land (and its associated loss of less than one animal unit) and for the restoration of ~~1,900~~ **2,100** feet of intermittent riverine wetland habitat and ~~2.5~~ **3** acres of riparian habitat.

F. Protection of Archaeological Resources

1. Applicable Coastal Act Policies and Standards:

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.

2. Consistency Analysis:

The diked former tidelands and surrounding areas are located within the ethnographic territory of the Wiyot Indians. Wiyot settlements existed along Humboldt Bay and along the banks of many of the streams and sloughs in this area.

The City requested a cultural resource assessment from the North Coast Information Center for the project area during the land acquisition phase for the subject property. In October 2004 the City received the report, and the City also hired Roscoe and Associates to perform an archaeological evaluation in 2003. In addition, the California Coastal Conservancy issued a letter to the State Historic Preservation Office on June 22, 2006 requesting review and clearance for the project based on past survey work completed in the area. Based on these reports, the ~~proposed~~ project **as amended** could adversely impact archaeological resources. The City has therefore proposed maintaining a qualified cultural monitor on site during excavation activities. If any paleontological, archaeological, historical, or unique ethnic or sacred resources are found

during project excavation, the City has proposed to halt activities and not recommence work until a qualified archeologist has evaluated the materials and offered recommendations for further action.

To ensure protection of any archaeological or cultural resources that may be discovered at the site during construction of the **amended** development, the Commission attaches Special Condition No. 6. This condition requires that if an area of cultural deposits is discovered during the course of the project **as amended**, all construction must cease and a qualified cultural resource specialist must analyze the significance of the find. To recommence construction following discovery of cultural deposits, the 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~~ **a further** amendment to this permit is required.

Therefore, the Commission finds that the proposed **amended** development, 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.

G. Public Access

1. Applicable Coastal Act Policies and Standards:

Coastal Act Sections 30210, 30211, and 30212 require the provision of maximum public access opportunities, with limited exceptions. Coastal Act Section 30210 requires in applicable part that maximum public access and recreational opportunities be provided when consistent with public safety, private property rights, and natural resource protection. Section 30211 requires in applicable part that development not interfere with the public's right of access to the sea where acquired through use (i.e., potential prescriptive rights or rights of implied dedication). Section 30212 requires in applicable part that public access from the nearest public roadway to the shoreline and along the coast be provided in new development projects, except in certain instances, such as when adequate access exists nearby or when the provision of public access would be inconsistent with public safety. In applying Sections 30211 and 30212, the Commission is limited by the need to show that any denial of a permit application based on these sections or any decision to grant a permit subject to special conditions requiring public access is necessary to avoid or offset a project's adverse impact on existing or potential public access.

2. Consistency Analysis:

The project site is located between Highway 101 and Old Arcata Road, inland from the margin of Humboldt Bay. No existing public access to a beach or shoreline is available in the project area, which currently supports and will continue to support seasonal agricultural grazing. The proposed project, **as amended**, does not involve any changes or additional restrictions to existing public access that would interfere with or reduce the amount of area public access and recreational opportunities. In fact, public use of the project site for birdwatching from the surrounding public roadways (Highway 101 and Old Arcata Road) may increase, as the proposed enhancements are expected to benefit waterfowl and other water-associated wildlife.

Therefore, the Commission finds that the proposed project, **as amended**, would not have an adverse effect on public access and that the project as proposed is consistent with the requirements of Coastal Act Sections 30210, 30211, and 30212.

H. Other Agency Approvals

The project, **as amended**, requires review and authorization by the U.S. Army Corps of Engineers. Pursuant to the Federal Coastal Zone Management Act, any permit issued by a federal agency for activities that affect the coastal zone must be consistent with the coastal zone management program for that state. Under agreements between the Coastal Commission and the U.S. Army Corps of Engineers, the Corps will not issue a permit until the Coastal Commission approves a federal consistency certification for the project or approves a permit. The project also requires a CWA Section 401 Water Quality Certification from the Regional Water Quality Control Board, and a Streambed Alteration Agreement from the Department of Fish and Game. To ensure that the project ultimately approved by the other agencies is the same as the project authorized ~~herein~~ **under the original permit**, the Commission attaches **d** Special Condition Nos. 7, 8, and 9, which required **d** the City 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 required **d** that any project changes resulting from these other agency approvals not be incorporated into the project until the applicant obtains **ed** any necessary amendments to this coastal development permit.

The applicant has submitted evidence that all necessary approvals for the proposed amended development from other agencies have been obtained, including the Army Corps of Engineers (Nationwide Permit No. 27 was issued for the original project, and no amendment is necessary), the North Coast RWQCB (Notice of Intent to comply with the terms of General Water Quality Certification Order for Small Habitat Restoration Projects submitted February 23, 2011), and the DFG (amendment to LSAA Notification No. 1600-2008-0094-R1 dated March 22).

I. Public Trust Lands

The project site is located in an area subject to the public trust. Therefore, to ensure that the applicant ~~has~~ **had** the necessary authority to undertake all aspects of the **originally approved** project on these public lands, the Commission attaches **d** Special Condition No. 10, which requires **d** that the project be reviewed and where necessary approved by the State Lands Commission prior to permit issuance. **This condition was fulfilled and the submitted information indicates that no additional approval is needed from SLC for the development as amended.**

J. California Environmental Quality Act

The City of Arcata, as the lead agency, adopted a Mitigated Negative Declaration for the Arcata Baylands Enhancement/Restoration Project on June 14, 2006 (SCH No. 2006042056).

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, as amended, 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 amended 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. Vicinity Map
3. Project location in relation to nearby protected areas and restoration sites
4. Proposed amended project plans
5. Channel reconfiguration approved under original permit relative to current and historic channel configuration
6. Restoration Monitoring Plan approved by the Executive Director for the original permit
7. Erosion & Runoff Control Plan (excerpt) approved by the Executive Director for the original permit
8. Approved Debris Disposal Equipment Staging and Stockpiling Plan for the original permit
9. Staff report findings for approval of CDP No. 1-09-020

APPENDIX A

STANDARD CONDITIONS

1. Notice of Receipt and Acknowledgement. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable amount of time. Application for extension of the permit must be made prior to the expiration date.
3. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the Executive Director of 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.

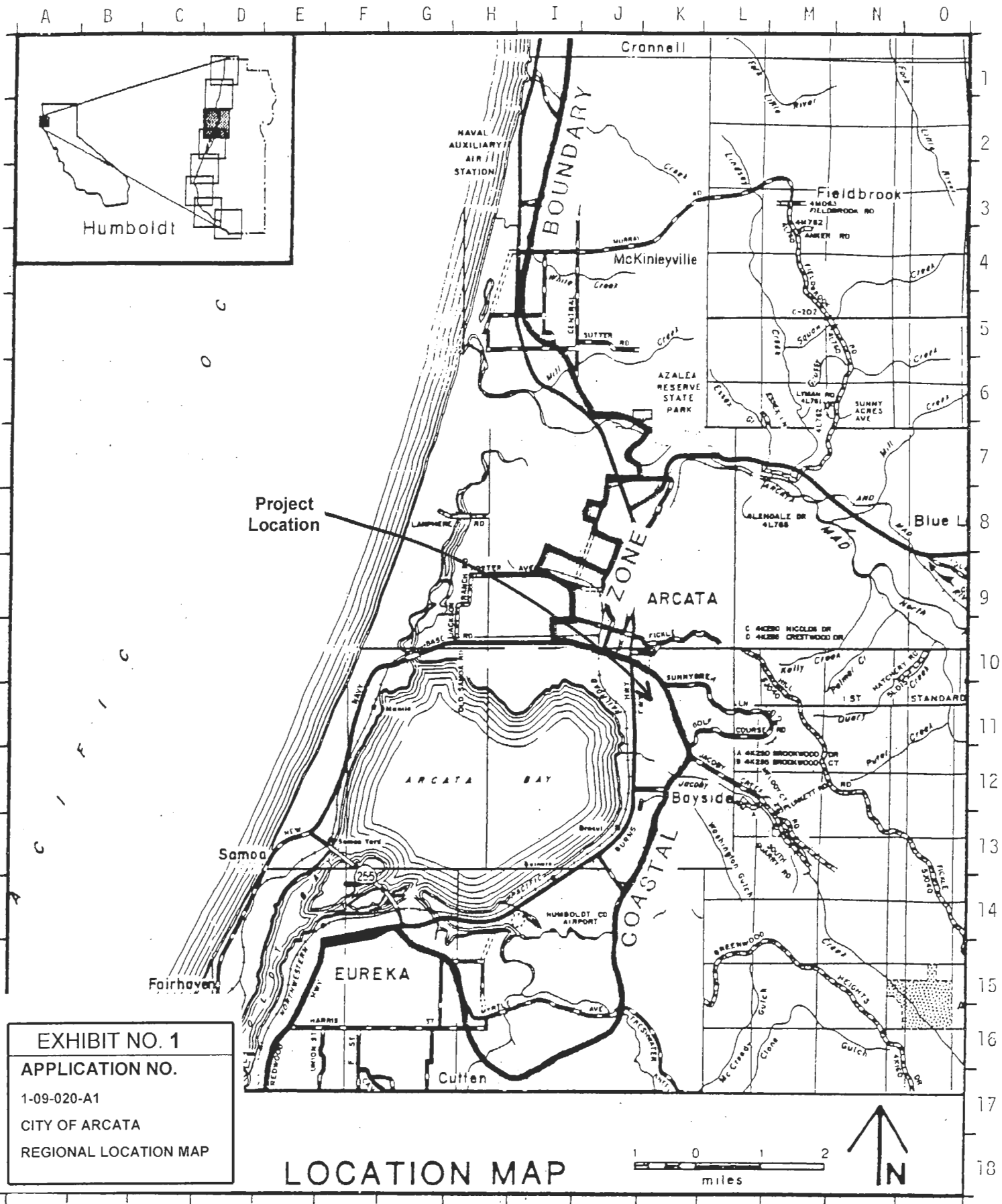


EXHIBIT NO. 1
APPLICATION NO.
 1-09-020-A1
 CITY OF ARCATA
 REGIONAL LOCATION MAP

LOCATION MAP

County of Humboldt

Vicinity Map

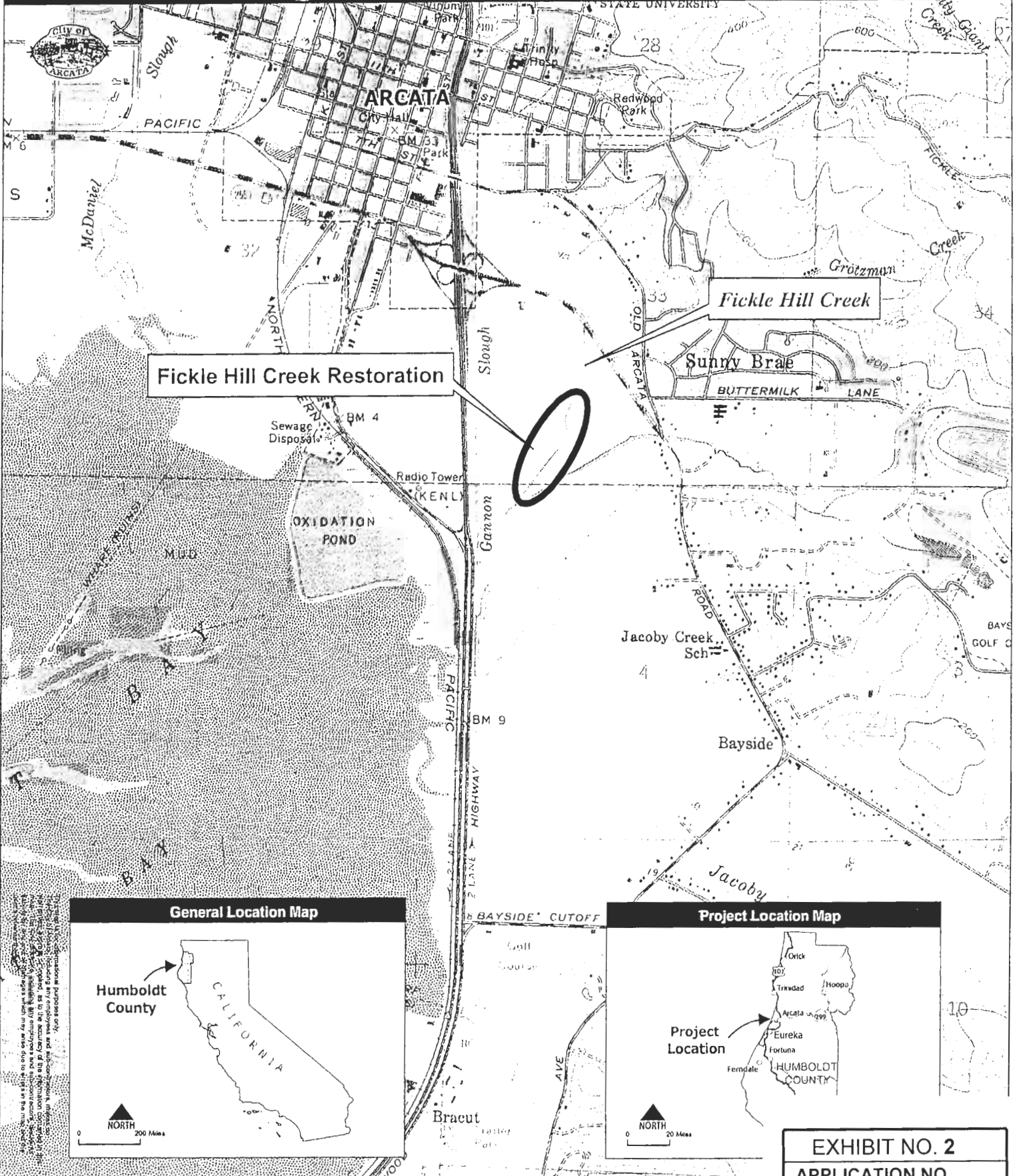


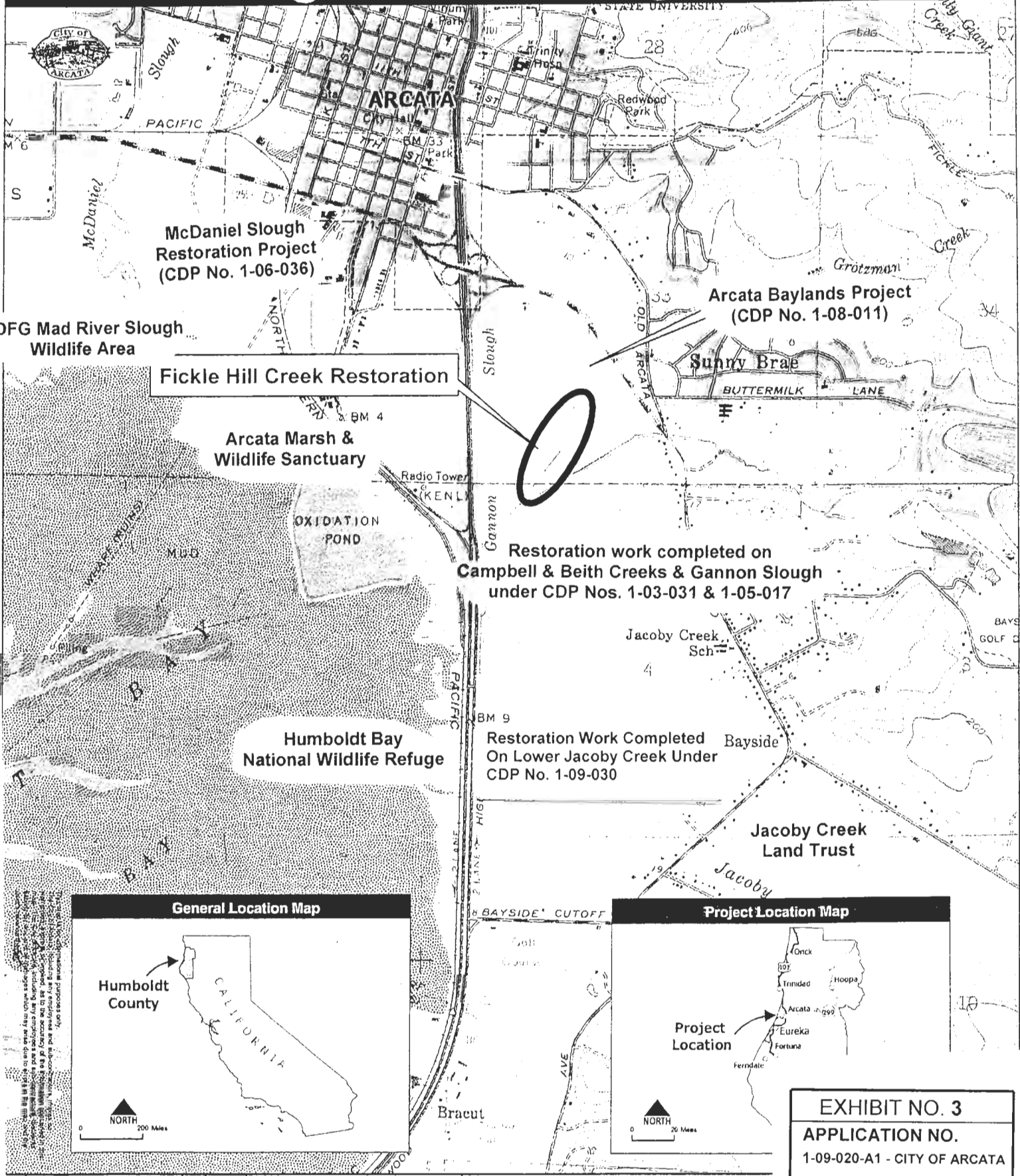
EXHIBIT NO. 2
APPLICATION NO.
 1-09-020-A1
CITY OF ARCATA
VICINITY MAP

NO.	REVISION	BY	DATE

CITY OF ARCATA
 Environmental Services Department
 DESIGNED BY: M.A.
 DRAWN BY: B.K.
 CHECKED BY: M.A.
 EXPIRES

Arcata Baylands Addendum
FICKLE HILL CREEK RESTORATION
 PRE AND POST PROJECT CROSS SECTION
 USGS 7.5 Minute Topographic Map, Arcata South Q
 Section 33, T.6.N., R.1.E. of H.B. & M.

Vicinity Map



Fickle Hill Creek Restoration

Restoration work completed on
Campbell & Beith Creeks & Gannon Slough
under CDP Nos. 1-03-031 & 1-05-017

Restoration Work Completed
On Lower Jacoby Creek Under
CDP No. 1-09-030

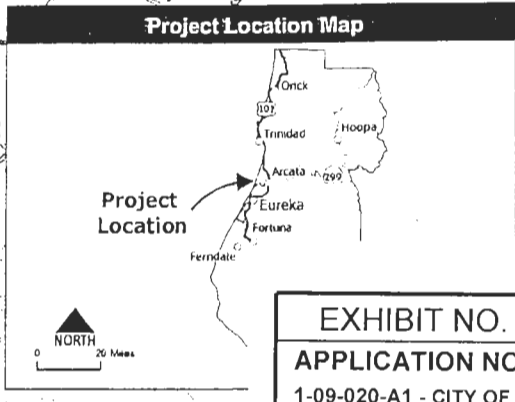
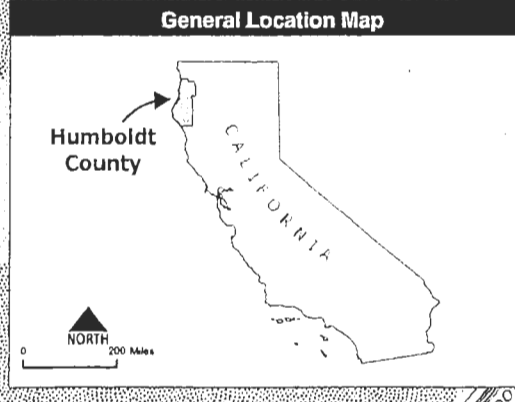


EXHIBIT NO. 3
APPLICATION NO.
1-09-020-A1 - CITY OF ARCATA
**PROJECT LOCATION IN
RELATION TO NEARBY
PROTECTED AREAS AND
RESTORATION SITES**

NO.	REVISION	BY	DATE	CITY OF ARCATA
				Environmental Coordinator
				DESIGNED BY: M.A.
				DRAWN BY: B.K.
				CHECKED BY: M.A.
				EXPIRES

Arcata Baylands Addendum
FICKLE HILL CREEK RESTORAT
PRE AND POST PROJECT CROSS SE

USGS 7.5 Minute Topographic Map, Arcata South Quadrangle
Section 33, T.6.N., R.1.E. of H.B. & M.

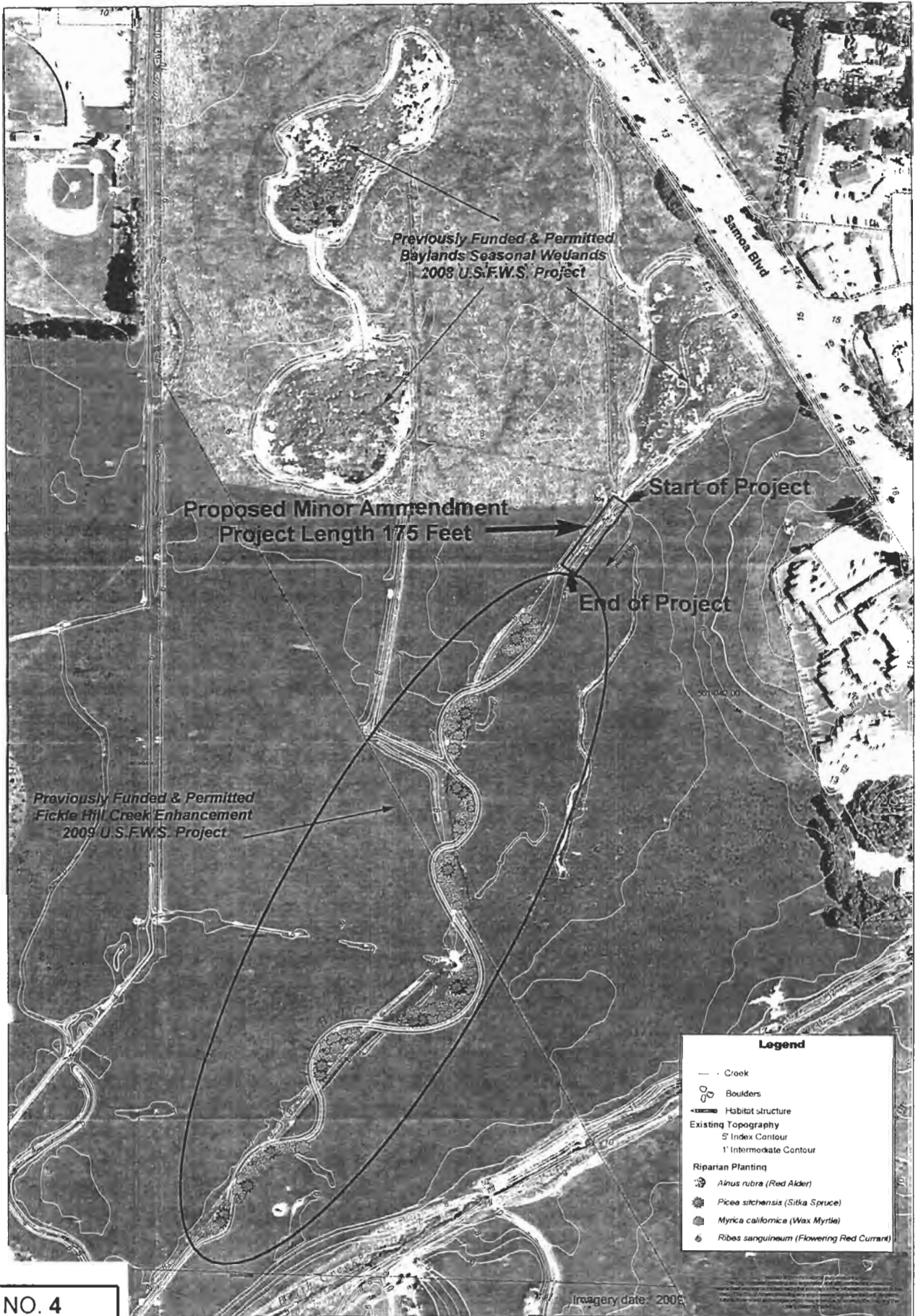



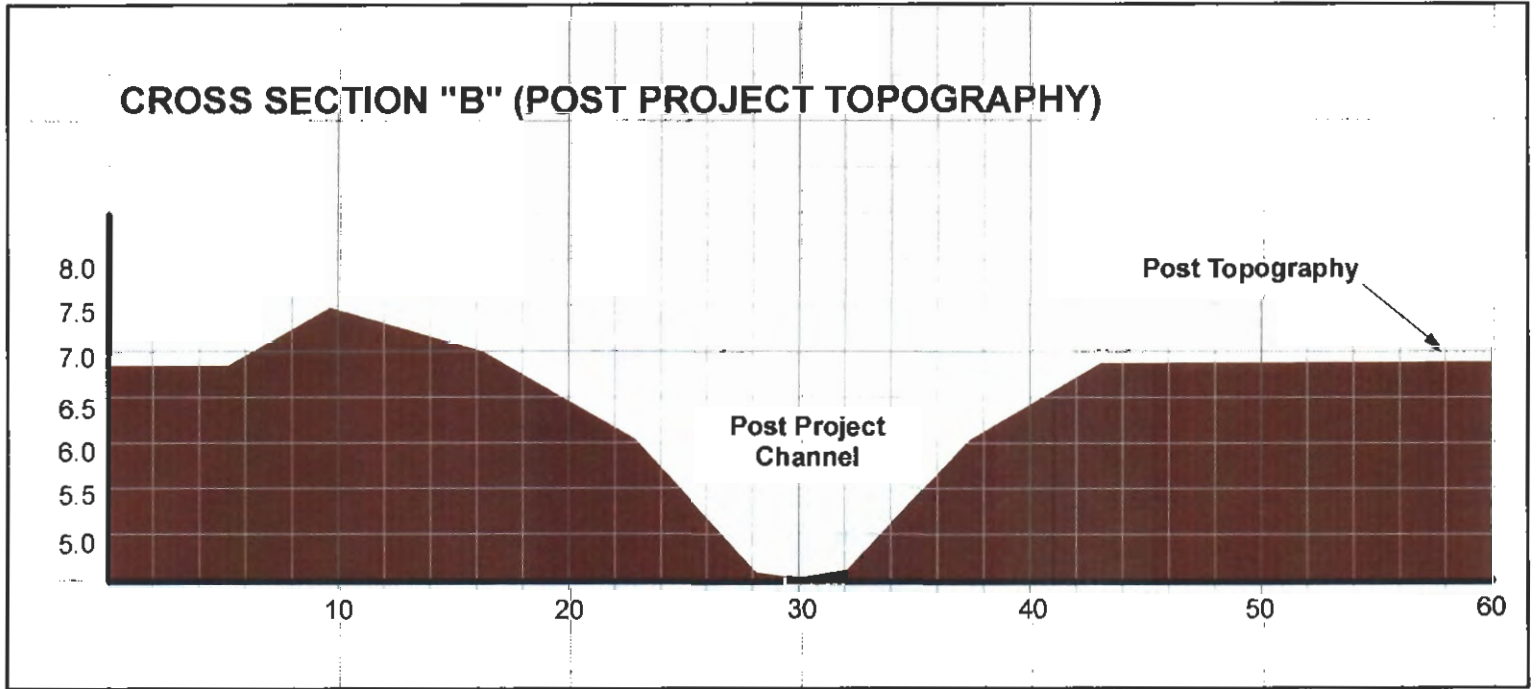
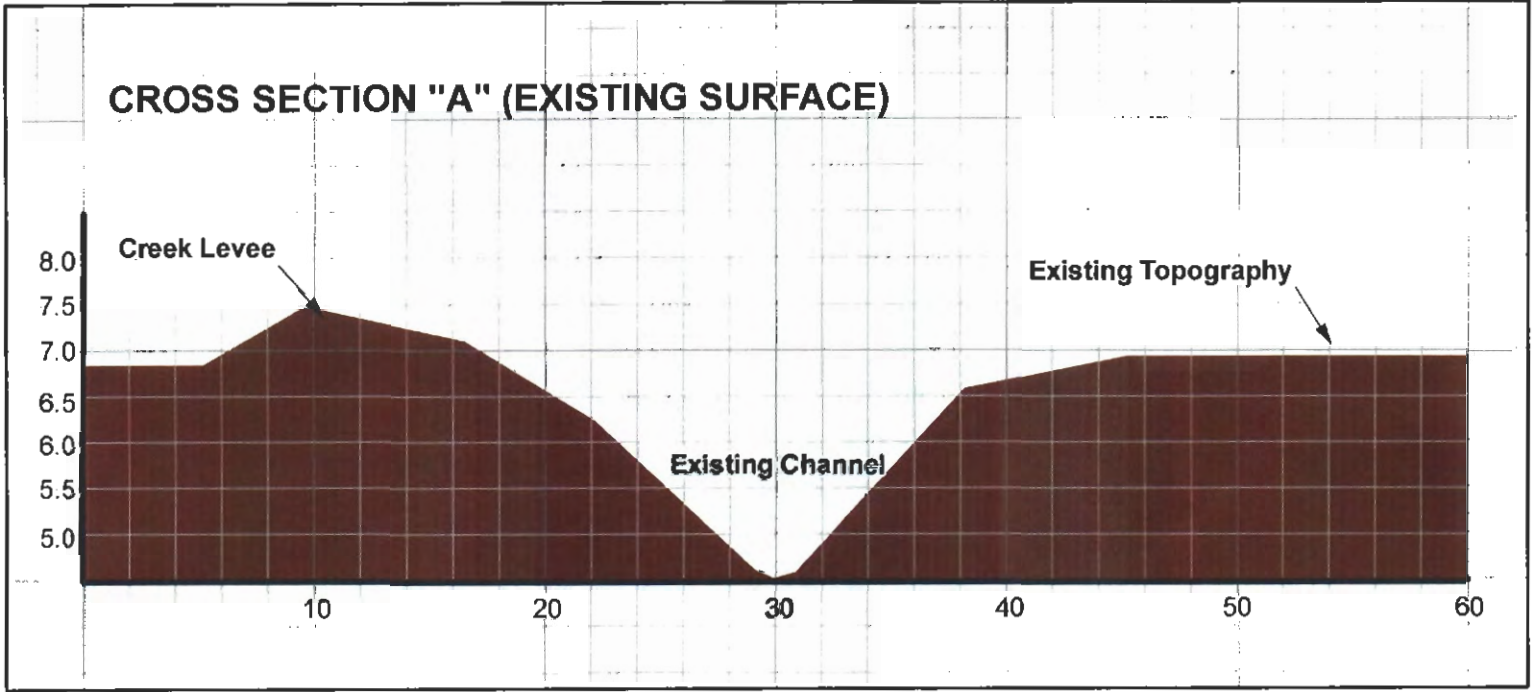


EXHIBIT NO. 4
APPLICATION NO.
 1-09-020-A1
 CITY OF ARCATA
 AMENDED PROJECT PLANS
 (1 of 2)

BY	DATE
 CITY OF ARCATA <i>Environmental Solutions</i>	

Arcata Baylands Addendum
**FICKLE HILL CREEK RESTORATION
 POST PROJECT TOPOGRAPHY**
 USGS 7.5 Minute Topographic Map, Arcata South Quadrangle
 Section 33, T.6.N., R.1.E. of H.B. & M.

SHEET 1 of 1	DATE 1/20/2011
 100 Feet 1:2,154	
 NORTH	



ALL UNITS IN FEET

This map is for informational purposes only. The City of Arcata, including any employees and sub-contractors, makes no warranties, express or implied, as to the accuracy of the information contained in this map. The City of Arcata, including any employees and sub-contractors, disclaims liability for any and all losses which may arise due to errors in the map and the user's reliance thereon.

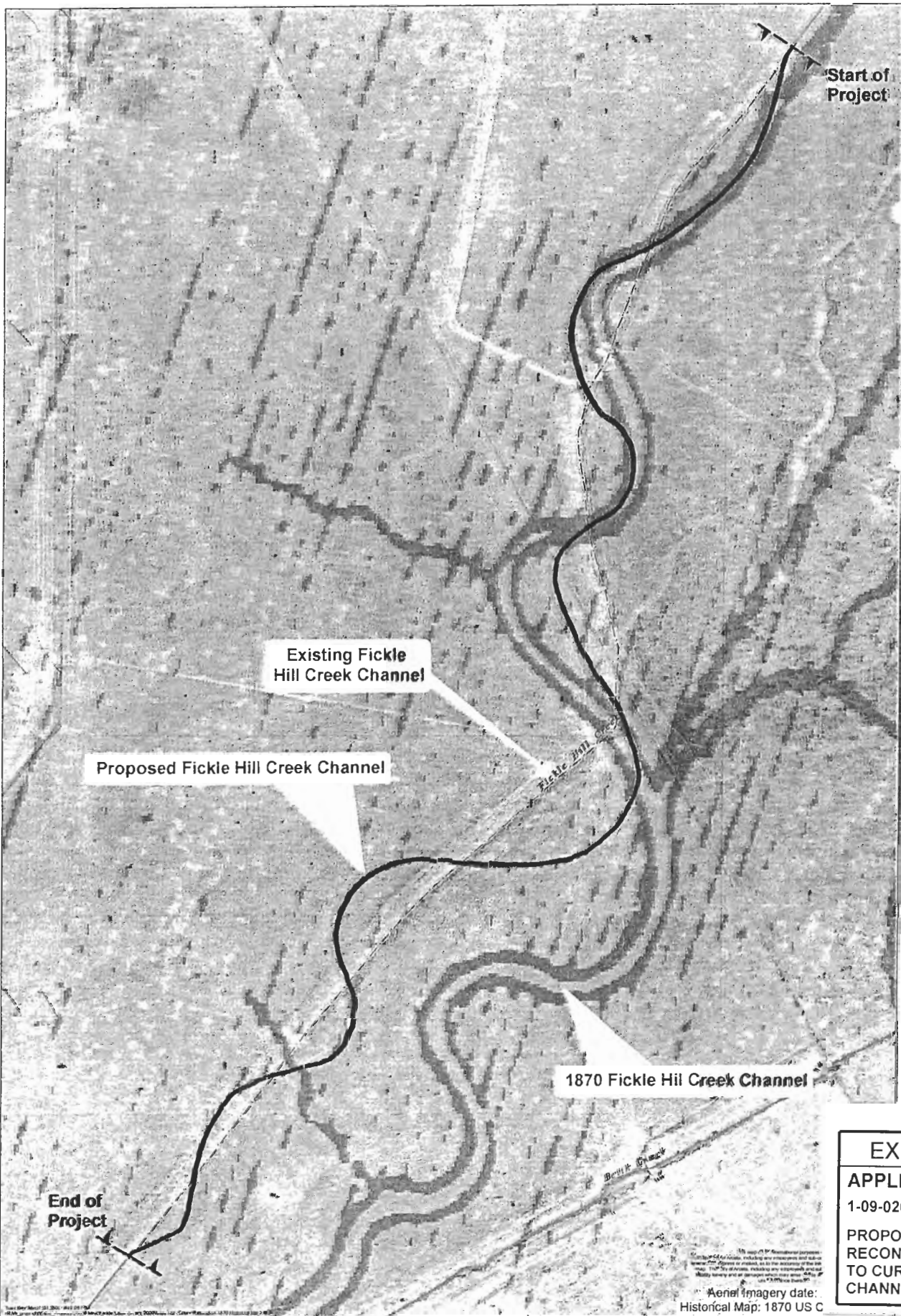
Map Document: (R:\w_projects\ES&S_Projects\2011\map\1\1\1\Hill_Creek_Restoration_Upper_Section_Cross_sections\2011.mxd) 4/4/2011 - 10:05:02 AM

NO.	REVISION	BY	DATE	CITY OF ARCATA	Arcata Baylands Addendum	SCALE	DATE
				<i>Environmental Services Department</i>			4/4/2011
				DESIGNED BY: M.A.		Fickle Hill Creek Restoration-Upper Section	
				DRAWN BY: B.K.		Cross-section (5/21/11.mxd)	
				CHECKED BY: M.A.		SHEET	1
	EXPIRES			OF	1		

FICKLE HILL CREEK RESTORATION PRE AND POST PROJECT CROSS SECTIONS

USGS 7.5 Minute Topographic Map: Arcata South Quadrangle
Section 33, T.6N., R.1E. of H.B. & M.

242



Start of Project

Existing Fickle Hill Creek Channel

Proposed Fickle Hill Creek Channel

1870 Fickle Hill Creek Channel

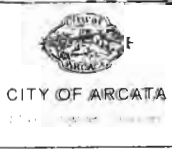
End of Project

EXHIBIT NO. 5
APPLICATION NO.
 1-09-020-A1 - CITY OF ARCATA
PROPOSED CHANNEL RECONFIGURATION RELATIVE TO CURRENT AND HISTORIC CHANNEL CONFIGURATIONS

Aerial Imagery date:
 Historical Map: 1870 US C

NO	REVISION	BY	DATE

DESIGNED BY: M.A.
 DRAWN BY: B.K.
 CHECKED BY: M.A.



Arcata Baylands Addendum
FICKLE HILL CREEK RESTORATION
1870 U.S. COAST SURVEY
 USGS 7.5 Minute Topographic Map, Arcata South Quadrangle
 Section 33, T 6 N., R 1 E of H & M

SHEET 4 of 5 DATE 3/31/2009

Fickle Hill Creek Restoration-18, Orientation Map Part

100 Feet
 1:1,200

NORTH

City of Arcata
Restoration Monitoring Plan for Arcata Baylands Seasonal Wetland Enhancement
and Fickle Hill Creek Restoration
Coastal Development Permit Number 1-08-011
Arcata, California, Humboldt County
August 10, 2009

PROJECT DESCRIPTION: Federal, State and local agencies permitted enhancement of 9 acres of seasonal freshwater wetlands in the Arcata Baylands Project in 2008. The seasonal freshwater enhancement work included the upper reach of Fickle Hill Creek. A permit amendment has been approved for restoring the Fickle Hill Creek drainage just down stream of the habitat work that was completed in 2008. The amendment work will restore the Fickle Hill Creek channel to more closely resemble the 1870 alignment. Past alterations in drainage patterns make it impossible to completely restore the creek's original configuration (see attached 1870 US Coast Survey Map). Constraints include utility lines and levees along Beith Creek. Most of the Baylands area supports grazing.

This component of the Arcata Baylands Project restores Fickle Hill Creek down stream of the recently completed seasonal wetland enhancement. Using the *1870 US Coast Survey Historic Map* as a reference the City will construct channel meanders along Fickle Hill creek to provide a more naturalized channel configuration. The City will also place 9 to 15 small log/boulder cover structures, anchored into the banks, in the newly constructed channel to increase channel complexity and improve instream habitat. The work involves reconfiguring 1,634 feet of the existing channel resulting in a final channel length of 1,934 feet. The new channel will have a top width of approximately 22 feet and a bottom channel width of 4'. The project will create 0.3 acres of additional ephemeral instream habitat and lengthen the channel by 300 feet.

METHODS: Reestablishing the historic configuration of Fickle Hill Creek will involve use of heavy equipment to excavate and shape channels during the summer when the creek is dry and no aquatic species are present. Construction equipment could include bulldozers, excavators, loaders, scrapers, and transport vehicles. Heavy equipment will operate outside of flowing stream channels and open water wetlands. All work will occur upstream of the existing utility lines and the tidally influenced portion of Fickle Hill Creek. A silt fence will be installed down stream of the work site as an added precaution. All habitat improvements will be done in accordance with techniques described in the "California Salmonid Stream Habitat Restoration Manual".

MONITORING GOALS

After project implementation, the site will be monitored for a five year period with the goal of demonstrating successful restoration of historic channel alignments as provided in the original CDP application and the amendment including Fickle Hill Creek instream habitat cover, establishment of 2.5 acres of native riparian vegetation and establishment of seasonal wetlands in the abandoned channel area.

Aquatic Monitoring Methods

The City will work with CDFG staff and National Marine Fisheries Service (NMFS) to obtain a Section 10 permit to monitor for the presence/utilization in the Fickle Hill channel of the project area by steelhead (*Oncorhynchus mykiss*), coho salmon (*Oncorhynchus kisutch*), and coastal cutthroat trout (*Oncorhynchus clarki*) during winter months. Monitoring frequency and methods will be determined by CDFG & NMFS. If NMFS concurs sampling will occur biannually for 5 years using methods such as minnow traps, seine hauls, and/or fyke netting/electro-fishing sampling.

EXHIBIT NO. 6

APPLICATION NO.

1-09-020-A1 - CITY OF ARCATA

**APPROVED RESTORATION
MONITORING PLAN FOR
ORIGINAL PERMIT (1 of 4)**

Avian Monitoring Methods

Avian surveys will be conducted annually each winter (February–March). Four surveys (two high tide and two low tide) will be conducted. Each survey will be separated by at least 7 days and will occur in late February or early March. Low and high tide surveys may occur on the same day. Total number and abundance of all bird species will be recorded. Data will be compared to adjacent non-wetlands starting with Year 1 to determine if the project contributes to an increase in abundance and species richness of freshwater dependent avian species using the wetlands. Survey routes will be designed to include all four enhancement wetlands and the Fickle Hill channel.

An increase in freshwater-associated bird abundance on the site is expected to result after completion of this project. However, wildlife populations are dynamic and regulated by a variety of factors that are uncontrollable (disease, weather, prey abundance, duration of surface water, etc.). Therefore, specific target levels at which to measure increases in avifauna abundance are not provided because a failure to detect statistically significant increases in bird use may not be a result of project failure. If there are no detectable increases in post-project freshwater dependent bird use over the five year monitoring program, monitoring data will be compared to bird counts obtained from other similar habitats in the Humboldt Bay area to see if bird abundance is generally increasing, decreasing or stable.

If waterfowl and freshwater-associated bird abundance within the project area do not reflect bird use seen in surrounding areas, further investigation may be warranted. Water levels, water depth, seasonality and other factors influence food and prey base. If pond development and food base for freshwater dependant birds are not present at desirable levels, further habitat manipulation may be necessary. These biological parameters will be investigated fully and contingency measures will be provided should they become necessary.

Season Wetland and Fickle Hill Channel Monitoring Methods:

Temporal and physical water levels will be measured by establishing one permanent photo point and one permanent gage point in each seasonal wetland and in the new channel to be use to determine water depth and extent of inundation. Photos will be taken monthly each reporting year, from December through May. Photos for the new Fickle Hill Creek channel will include one site taken monthly with both up and downstream views each reporting year, from December through May. Water level and extent will be correlated over the 5 year period to rainfall data over the same time frame. Vegetation surveys will be conducted in the abandoned channel areas. These areas should reestablish with species that are consistent with seasonal wetland vegetation in the adjacent seasonal wetlands.

City staff will use Global Positioning Systems (GPS) to digitally capture the enhancement site area and dimensions to produce an “as built” map that includes the new Fickle Hill Creek Channel and the seasonal wetlands. At the end of the 5 year period the open water area of each seasonal wetland will be digitally captured. The season wetlands’ dimensions measured for year 5 can then be compared to the “as built” dimensions as another means to determine overall success.

Riparian Vegetation Monitoring Methods:

Riparian vegetation will be established along the new Fickle Hill Creek channel by planting locally collected willow cuttings and purchasing locally cultivated native trees. Trees species include Shining willow (*Salix lucida*), Hookers willow (*Salix hookeriana*), Red alder (*Alnus rubra*), Sitka spruce (*Picea sitchensis*). Trees will be clustered and planted on 10-15 foot spacing. Riparian plantings will be monitored yearly for survival. Sampling by direct counting of surviving tree plantings will occur. The area will be fenced to protect the new

vegetation from disturbance by cattle. Annual inspection and species totals will be conducted to determine survival. If after year two and year 4 mortality is greater than 50% additional planting will be done to compensate for any losses.

Performance Standards

The wetland enhancements and restoration of the Fickle Hill Creek channel will be considered successful when:

1. The Fickle Hill Creek channel shows winter utilization by one or more of the following species: steelhead (Oncorhynchus mykiss), coho salmon (Oncorhynchus kisutch), coastal cutthroat trout (Oncorhynchus clarki).
2. The seasonal freshwater wetlands and the new Fickle Hill Creek channel show inundation with water under normal winter rainfall conditions for at least 3 months each winter season.
3. Seasonal wetlands perimeters after 5 years are equal to an area equivalent to the as built perimeters recorded after project completion and vegetation established in the abandoned Fickle Hill channel area is comprised of species found in the adjacent seasonal wetlands.
4. There is an increase in the abundance and species richness of freshwater dependent avian species utilizing the seasonal wetlands over the five year period.
5. There is 50% survival of the riparian vegetation planted along the new Fickle Hill Creek channel.

Remedial Measures

If the freshwater wetlands do not meet the approved performance standards the City will check the water control structures and repair or modify them if necessary. If the desired seasonal wetland vegetation is not established in the abandoned Fickle Hill channel areas and riparian vegetation is not established to the $\geq 50\%$ level, augmentation through planting additional desired species may be warranted.

If the final report indicates the project has been unsuccessful based on the approved performance standards, the City will submit a revised enhancement plan to compensate for those portions of the original project that did not achieve the performance standards. Monitoring and reporting will continue until success criteria are met.

Project Reporting Schedule

Within 30 days of completion of the project, City staff will use Global Positioning Systems (GPS) to digitally capture the enhancement site areas and dimensions to produce an "as built" map". This map and photos of the enhancement site along with an assessment of the initial status of the "as built" enhancements will be submitted to the Executive Director within 30 days of completion.

Annual reports will be submitted to the Executive Director by October 1st of the first year following completion of the implementation of the enhancement project. Each report shall include copies of all previous reports as

appendices. Each report shall also include a "Performance Evaluation" section where information and results from the monitoring program are used to evaluate the status of the wetland enhancement project in relation to the performance standards.

The final monitoring report will be submitted to the Executive Director at the end of the reporting period. The final report will contain all the post-project data collected over the monitoring period including pre-project (or baseline) information to provide a comparison. The format for the final report will include an introduction; site plans and study area, methods used, etc. A project evaluation section will evaluate whether the enhancement site conforms with the goals, objectives, and performance standards set forth in this monitoring program.

If the final report indicates that the enhancement project has been unsuccessful, in part, or in whole, based on the approved goals and objectives set forth in Coastal Development Permit Application No. 1-09-020 as summarized in Findings IV.B "Project Description," the applicant shall submit a revised or supplemental enhancement program to compensate for those portions of the original program which did not meet the approved goals and objectives. The revised enhancement program shall be processed as an amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

Any proposed changes from the approved monitoring program shall be reported to the Executive Director. No changes to the approved monitoring programs shall occur unless the Executive Director's approval.

EXHIBIT NO. 7
APPLICATION NO.
1-09-020-A1 - CITY OF ARCATA
APPROVED EROSION AND RUNOFF CONTROL PLAN FOR ORIGINAL PERMIT (1 of 5)

NORTH COAST DISTRICT
1-09-020 (Permit No.)
3 (Special Condition No.)
APPROVED PLAN
MSK Analyst
8/13/09 Date

City of Arcata

Erosion and Storm Water Pollution Prevention Plan for Arcata Baylands Seasonal Wetland Enhancement Project & Fickle Hill Creek Amendment

**Coastal Development Permit Number 1-08-011
RWQCB Certification # WDID 1B08027WNHU
Arcata, California, Humboldt County
August 5, 2009**

RECEIVED

AUG 10 2009

CALIFORNIA
COASTAL COMMISSION

1.0) Introduction and Purpose

Project Description: Federal, State and local agencies permitted enhancement of 9 acres of seasonal freshwater wetlands in the Arcata Baylands Project in 2008 under:

Nationwide Permit - File # 2008-0076N - issued 7/21/08,
Coastal Development Permit #1-08-011- issued 9/25/08
RWQCB WDID 1B08027WNHU 401 Certification - issued September 8/20/08
DFG Notification R1-08-0094-issued 6/18/08

The seasonal freshwater enhancement work included the upper reach of Fickle Hill Creek. This amendment to the existing permits allows for restoration of the Fickle Hill Creek drainage just down stream of the habitat work that was completed in 2008. The amendment work will restore the Fickle Hill Creek channel to more closely resemble the 1870 alignment. Past alterations in drainage patterns make it impossible to completely restore the creek's original configuration (see attached 1870 US Coast Survey Map). Constraints include utility lines and levees along Beith Creek. Most of the Baylands area supports grazing. The work will occur on Parcel #s 501-042-001 and 501-042-008. This area is zoned for agricultural and natural resource uses.

The City will remove 1,285 yd³ of material to create the new channel and place 1,051 yd³ of excavated material in the abandoned channel. Excavated material will fill the abandoned channel to adjacent ground level. Sod scraped from the excavated areas will be stored and used to revegetate the filled channel areas to maintain the existing site vegetation. Excess fill (approximately 235 yd³) will be hauled to permitted off-site locations at the McDaniel Slough project or to close a City owned rock quarry.

Purpose of this **Erosion Control and Storm Water Pollution Prevention Plan (SWPPP)** is to insure that:

- Project planning minimizes the quantity and duration of disturbed soils;
- Project planning provides for hazardous materials handling and spill response;
- Best Management Practices are implemented for the control of erosion and pollution that may occur during and after construction;
- Run-off from the restoration and enhancement project, shall not increase sedimentation in waters of Fickle Hill Creek , Humboldt Bay and waters of the state; and
- Run-off from the restoration and enhancement project, shall not result in pollutants entering Fickle Hill Creek , Humboldt Bay and coastal waters of the state;
- Insure that appropriate Best Management Practices shall be used to prevent entry of polluted stormwater runoff into coastal waters during the construction of the authorized structures. Best Management Practices (BMPs) shall include:

- (i.) Stormwater runoff diversion to be installed immediately up-gradient of excavation areas if significant rainfall is predicted within 24 hours.

All techniques will be applied according to manufacturer's specifications, as specified in this Erosion Control and SWPPP, as shown on the Plans or as directed by the City, the Engineer or permitting agencies.

2.3.3 Practices to Reduce Tracking Sediment Onto Public and Private Roads (TC-1)

The amount of sediment carried onto public roads by construction vehicles will be minimized by the use of various techniques. One option for reducing sediment tracking is stabilizing the entrance/exit to the site. This entrance/exit can be a temporary gravel pad of crushed stone at any point where vehicles will be entering or leaving the construction site. The entrance/exit should be properly graded so as to route runoff from the construction site or entrance/exit away from surrounding roads and Fickle Hill Creek . It should be able to support the largest vehicle on the site.

Access to the project site from public roads includes access from Old Arcata Road or State Route 255.

2.3.4 Wind Erosion

2.3.4.1 Dust Control (ESC-12)

Dust control measures will be practiced whenever dry soils are exposed. Application of water will be used as the control practice because of its availability and effectiveness.

Construction areas will be watered as needed to keep soil moist and prevent formation of wind blown dust. Watering shall be used on access roads (including the tops of levees used for access), material storage areas, and during materials placement. The amount of water used shall not be of such volume as to cause runoff from the temporary access roads, the top of the levee or outside the boundary of the staging area. If visible water is carried out onto adjacent streets, the area shall be washed with water or by a water sweeper struck in a manner that keeps the water from entering Fickle Hill Creek or other state waters.

All trucks hauling soil, sand, and other loose materials shall be covered if necessary to prevent wind blown dust.

All unpaved access roads, parking areas, and construction staging areas shall be watered or treated with non-toxic soil stabilizers to prevent dust formation.

If visible soil is carried out onto adjacent streets, the area shall be washed by a water sweeper truck.

Hydroseeding or non-toxic soil stabilizers shall be applied to inactive construction areas (previously graded areas inactive for ten days or more).

Exposed stockpiles of dirt, sand, and similar materials shall be enclosed, covered, watered daily, or treated with non-toxic soil binders.

Traffic speeds on unpaved roads shall be limited to 10 miles per hour.

Outdoor dust-producing activities shall be suspended when high winds create visible dust plumes in spite of control measures.

2.3.5 Practices to Minimize Contact with Storm Water

2.3.5.1 Construction Vehicles and Equipment (NS-8,9,&10)

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2.3.5.1.1 Maintenance

The maintenance of vehicles and equipment will be done in a manner that will contain any possible leaks or spills and enable easy and effective cleanup. Vehicles and equipment will be examined frequently to minimize the potential for future leaks. If maintenance that has the potential of releasing hazardous fluid is to be done on any equipment or vehicles, it will be done at an offsite repair facility. If the maintenance is needed immediately, a designated, contained location will be determined and used. Vehicles entering the construction site will be examined for any leaking oil or other fluids. All materials from equipment and vehicles will be segregated for disposal or recycling. Spent wastes that are toxic will be stored in a designated and contained location and removed periodically from the site in accordance with disposal standards of the City, the NCRWQCB, and/or EPA.

2.3.5.1.2 Fueling

Fueling that might occur onsite will be approved by the City. All storage of fuel on the site will be located within a designated containment area that is sized to hold the fuel tank volume. The designated containment area will be lined with an impervious material to provide retention. Collection vessels/pans/cloths will be used to collect fluids that may spill or leak while changing fluids. All portable fueling equipment will be required to meet all state and federal regulations.

2.3.5.1.3 Washing

All equipment cleaning will occur off site. If onsite cleaning is deemed necessary contractors will not use soap, solvents, degreasers, steam cleaning, or similar methods for cleaning equipment when on the site. Contractor will minimize the amount of water that is used for cleaning to ensure that containment in the designated area is achieved, and to reduce the need for sediment and erosion controls. Any collected wash waters will be sampled and analyzed by a State Certified Laboratory for pollutants. Sumps that collect wash water require regular removal and/or cleaning service and disposal in an approved offsite location.

2.3.5.2 Materials

Building materials, wet or dry, with the potential to contaminate runoff, will be handled and delivered with care and will be stored either undercover or surrounded by berms in wet weather. Nonhazardous materials will be purchased when available or feasible. All employees will be familiar with the proper management of materials that are located on the site, and proper storage instructions will be posted where they are visible.

2.3.6 Construction Material Loading, Unloading, and Access Areas

The loading and unloading of materials will be done at assigned areas, or at the location where they are to be used, to minimize disturbances on the construction site and to reduce potential impacts associated with storm water runoff. Access areas will be the same entrance(s)/exit(s) as described in Section 2.3.3.

2.3.7 Waste Management and Disposal

2.3.7.1 Concrete / Asphalt Debris

Solid concrete or asphalt debris will be collected and recycled. Concrete or asphalt debris will never be disposed in, or allowed to enter, the Humboldt, Fickle Hill Creek, or other wetland areas.

2.3.7.2 Miscellaneous Waste

Other waste materials will be recycled if possible. If recycling or reuse are not possible the materials will be disposed of according to local, state, and federal regulations. These materials will be taken to the City corporation yard for proper disposal or recycling.

2.3.8 Practices to Minimize Addition of Sediment to Waters (NS-5)

Construction activities will be limited to the times in which the low tides occur, or shall be limited to areas above the water level of onsite channels. The work will be done from solid ground by excavator, loader, backhoe or other

395

equipment. No equipment shall enter a wetted channel (remnant channels, Humboldt Bay or Fickle Hill Creek). All new levees will be contoured to stable conditions and will meet the engineered specs before the equipment leaves the site.

2.3.9 Pre-construction Control Practices

There are no existing pre-construction control practices.

2.4 Non-Storm Water Management

Water that is used for dust control or irrigation prior to the completion of the project, and water resulting from dewatering of excavated soils or draining from soil stockpiles will be considered nonstormwater and the impacts due to non-storm water will be mitigated by the use of BMP's such as those listed in Section 2.3.2. The use of water for dust control and irrigation will be done so that there will be little to no runoff.

2.5 Spill Prevention and Control (WM-4)

Spill prevention will be accomplished through the use of fueling and maintaining equipment off site and if any fueling or maintenance work occurs on site it will be in designated areas or through use of containment systems. Equipment will be examined regularly for degradation and malfunctions. Construction site workers will be prepared to respond to a spill and to evacuate an area where a spill has occurred. There will be an assigned response team that is qualified to deal with small incidences if they occur.

2.5.1 Minor Spills

Minor spills are those that can be controlled by onsite personnel. The contractor will perform the following actions:

- Contain the spread of the spill.
- If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (i.e., absorbent materials, cat litter, and/or rags).
- If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and dispose of contaminated soil in accordance with state and federal regulations.
- No work will be occurring during rain.
- Document all steps taken to report and contain the spill.

2.5.2 Major Spills

Major spills are those which exceed the containment capability of the site personnel. Site emergency response personnel will not attempt to control a major spill. Qualified emergency response staff will be contacted immediately and any effort to control the spill will be curtailed until the qualified agency has arrived. The following local, state, and national authorities will be notified.

City of Arcata Environmental Services Department	707-822-8184
NCRWQCB (Santa Rosa)	707-576-2220
Hazardous Materials Response Team(Humboldt / Del Norte)	707-441-4044(24 hr)
Governor's Office of Emergency Services Warning Center	1-800-852-7550
National Response Center	1-800-424-8802

A written report documenting what happened and what was done to correct the problem will be sent to all agencies notified.

2.6 Personnel Training

At a minimum, all construction superintendents and foremen will read and understand the Erosion Control and SWPPP and the General Permit and be aware of the management practices that will be implemented. All

495

construction will be completed by experienced contractors and subcontractors. All maintenance, repair, monitoring, reporting, and inspection requirements of the Erosion Control and SWPPP will be performed by trained personnel.

2.7 Monitoring

No work is anticipated to occur during the rainy season and therefore a monitoring system will not be needed. City staff will work with contractors to insure erosion control practices put in place during the construction phase of the project are functioning as intended if storm events occur.

3.0 POST-CONSTRUCTION STORM WATER MANAGEMENT

3.1 Operation

Following construction, it will be the City responsibility to inspect and maintain storm water controls and drainage courses to insure intended operation.

3.2 Maintenance

Following the construction phase, the contractor(s) will remove any sediment or debris that may have accumulated in drainage swales, silt fences, basins, or in the area of construction during the construction phase, and dispose of it in a manner to prevent it from reentering the bay, sloughs, drainage channels or other wetland areas.

APPENDIX

Selection of Pertinent BMPs

EC-1 - *Scheduling*
EC-2 - *Preservation of Existing Vegetation*
EC-3 - *Hydraulic Mulch*
EC-6 - *Straw Mulch*
EC-7 Geotextiles and Mats
EC-12 - *Streambank Stabilization*
SE -1 - *Silt Fence*
SE - 5 - *Fiber Rolls*
SE-9 - *Straw Bale Barrier*
TC-1 *Stabilized Construction Entrance/Exit*
WE-1 Wind Erosion Control
NS -5 - *Clean Water Diversion*
NS-8 - *Vehicle and Equipment Cleaning*
NS-9 - *Vehicle and Equipment Fueling*
NS-10 - *Vehicle and Equipment Maintenance*
WM-4 - *Spill Prevention and Control*

See <http://www.cabmphandbooks.com>) for more detailed information

City of Arcata
Final Debris Disposal, Equipment Staging and Stockpiling Plan for Arcata Baylands
Fickle Hill Creek Amendment to Seasonal Wetland Enhancement Project
Coastal Development Permit Number 1-08-011
Arcata, California, Humboldt County
August 4, 2009

RECEIVED

AUG 10 2009

CALIFORNIA
COASTAL COMMISSION

Project Description

Federal, State and local agencies permitted enhancement of 9 acres of seasonal freshwater wetlands in the Arcata Baylands Project in 2008. The seasonal freshwater enhancement work included the upper reach of Fickle Hill Creek. This permit amendment is for restoring the Fickle Hill Creek drainage just down stream of the habitat work that was completed in 2008. The amendment work will restore the Fickle Hill Creek channel to more closely resemble the 1870 alignment. Past alterations in drainage patterns make it impossible to completely restore the creek's original configuration (see attached 1870 US Coast Survey Map). Constraints include utility lines and levees along Beith Creek. Most of the Baylands area supports grazing.

Site Construction Activities

Reestablishing the historic configuration of Fickle Hill Creek will involve use of heavy equipment to excavate and shape channels during the summer when the creek is dry and no aquatic species are present. Construction equipment could include bulldozers, excavators, loaders, scrapers, and transport vehicles. Heavy equipment will operate outside of flowing stream channels and open water wetlands. All work will occur upstream of the existing utility lines and the tidally influenced portion of Fickle Hill Creek. A silt fence will be installed down stream of the work site as an added precaution. All habitat improvements will be done in accordance with techniques described in the "California Salmonid Stream Habitat Restoration Manual".

This component of the Arcata Baylands Project restores Fickle Hill Creek down stream of the recently completed seasonal wetland enhancement. Using the *1870 US Coast Survey Historic Map* as a reference the City will construct channel meanders along Fickle Hill creek to provide a more naturalized channel configuration. The City will also place 9 to 15 small log/boulder cover structures, anchored into the banks, in the newly constructed channel to increase channel complexity and improve instream habitat. The work involves reconfigure 1,634 feet of the existing channel resulting in a final channel length of 1,934 feet. The new channel will have a top width of approximately 22 feet and a bottom channel width of 4'. The project will create 0.3 acres of additional ephemeral instream habitat and lengthen the channel by 300 feet.

The City will remove 1,285 yd³ of material to create the new channel and place 1,051 yd³ of excavated material in the abandoned channel. Excavated material will fill the abandoned channel to adjacent ground level. Sod scraped from the excavated areas will be stored and used to revegetate the filled channel areas to maintain the existing site vegetation. Excess fill (approximately 235 yd³) will be hauled to permitted off-site locations at the McDaniel Slough (CDP No. 1-06-036) or to close a City owned rock quarry.

Two culverts will be removed from the former channel (see plan view for location).

EXHIBIT NO. 8
APPLICATION NO.
1-09-020-A1 - CITY OF ARCATA
APPROVED DEBRIS DISPOSAL EQUIPMENT STAGING AND STOCKPILING PLAN FOR ORIGINAL PERMIT
(1 of 4)

CALIFORNIA COASTAL COMMISSION	
NORTH COAST DISTRICT	
1-09-020	(Permit No.)
5	(Special Condition No.)
APPROVED PLAN	
MJK	8/13/09
Analyst	Date

Fill material will be hauled offsite in 10- and 20-yard dump trucks and incorporated into the levees being constructed at McDaniel Slough or used to enhance the marsh plain at the McDaniel Slough Project. An Arcata Baylands Enhancement Program Fill Location Map is attached. A site specific Temporary Stockpile Locations Map for the McDaniel Slough project is also attached. It is anticipated that the fill taken to the McDaniel Slough site will be incorporated directly into the levees or spread to enhance the marsh plain. However, locations for temporary fill stockpile areas are also identified in the event that fill must be temporarily stockpiled prior to incorporating the material into the levee. The levee construction work is scheduled to be completed by October 15th with an extension to November 15, 2009, subject to Special Condition #2 of CDP 1-08-011. If the work ceases to comply with Special Condition #2 of CDP 1-08-011, temporary stockpiles will be winterized in compliance with the measures listed in Special Condition #2 of CDP 1-08-011. Any temporarily stockpiled material will be incorporated into the levees or spread to enhance the McDaniel Slough project marsh plain by October 15, 2009 as per CDP 1-06-36.

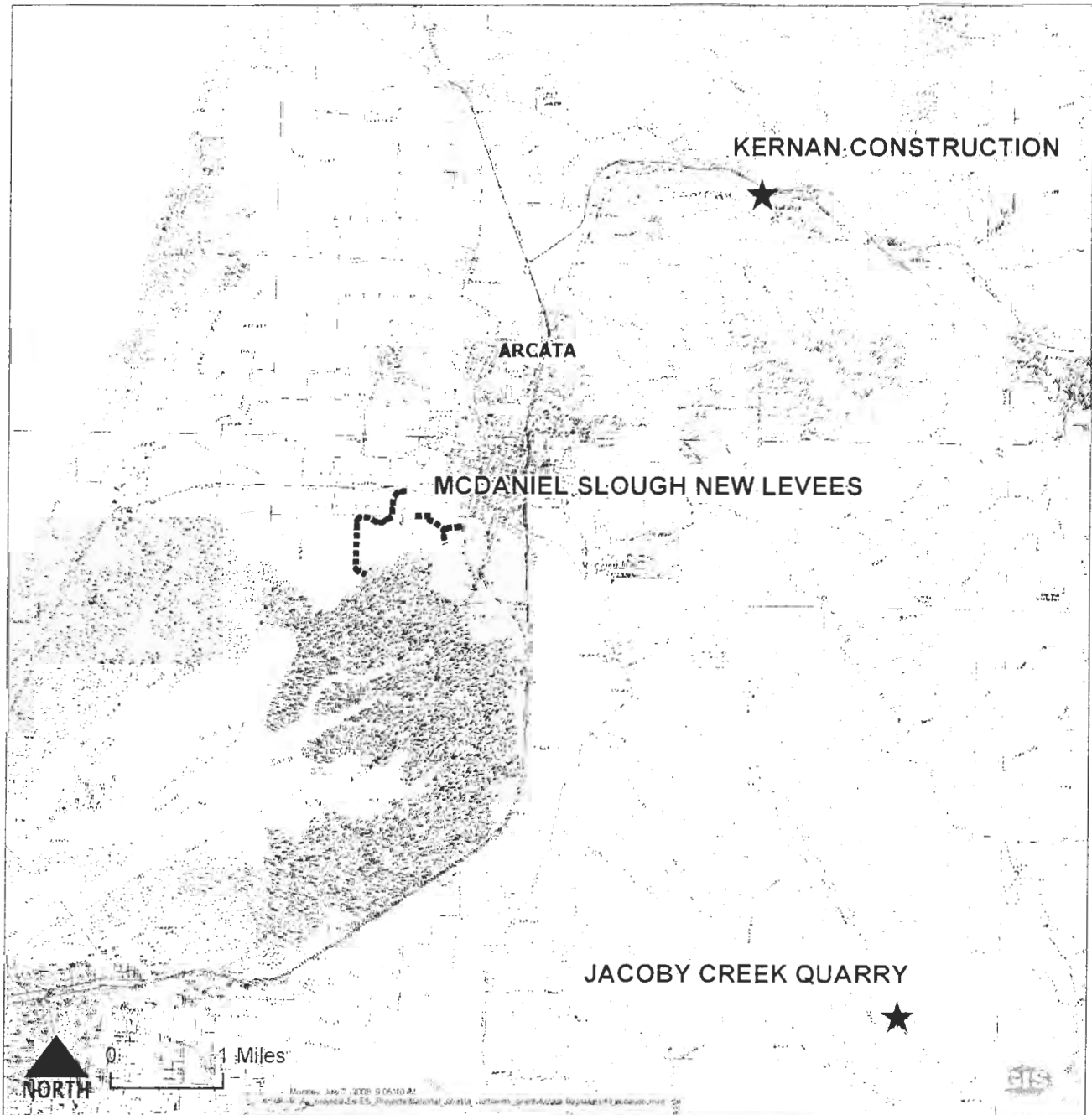
The City does not anticipate directing fill to other sites, however if needed, fill may be taken to the City of Arcata's rock quarry or to Kernan Construction's facility. Neither of these facilities require permits for fill to be taken there. Culverts will be taken the City corporation yard for reuse or to Kernan construction for recycling.

City of Arcata

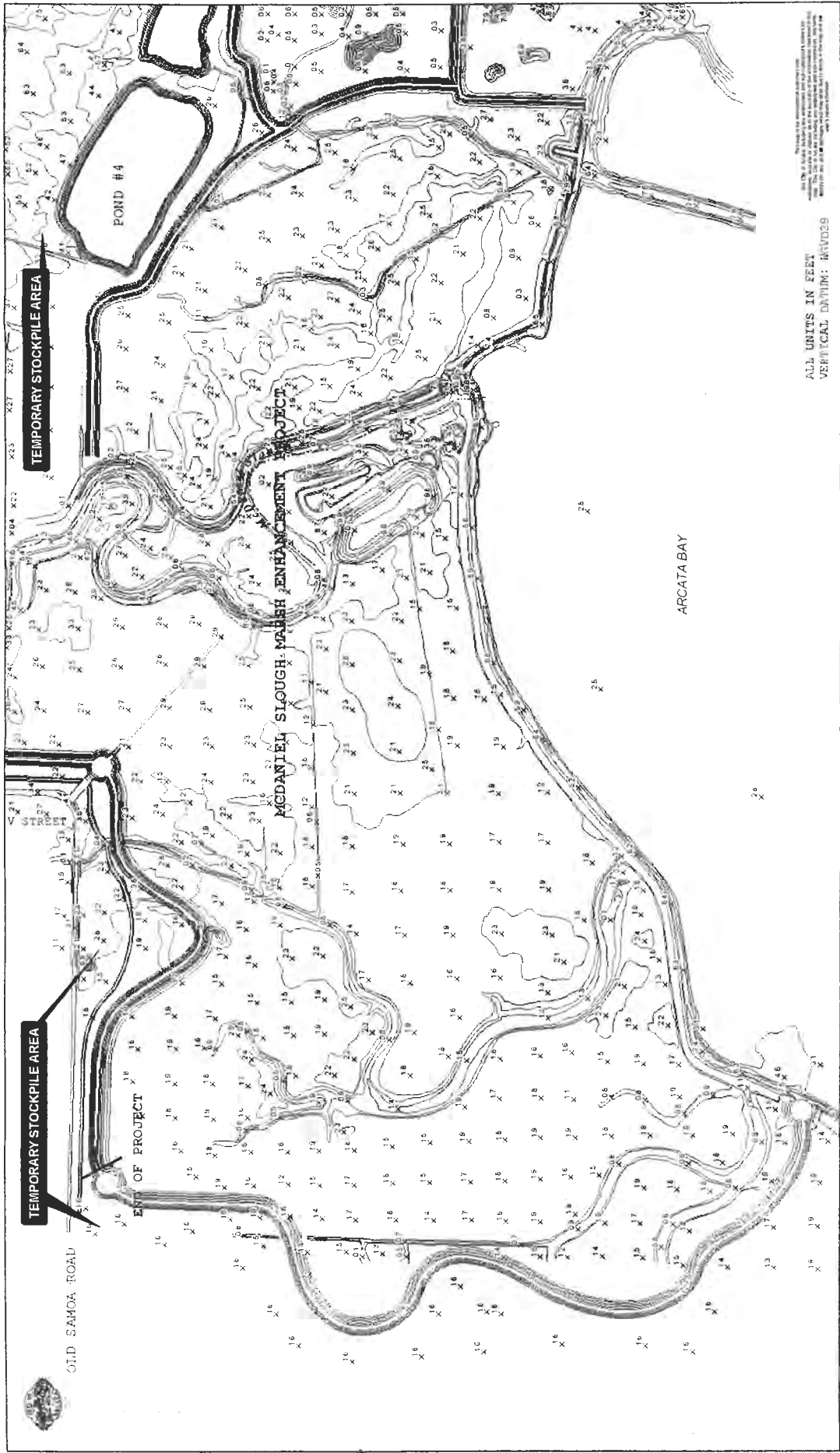
ARCATA BAYLANDS ENHANCEMENT PROGRAM Jacoby Creek/Gannon Slough Area Enhancements

Fill Location Map

U.S.G.S 7.5 Minute Topographic Quadrangle: Arcata South
Section 31, 32, & 33 of T.6.N., R. 1.E., & Section 4 of T.5.N., R.1.E. of H.B & M



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ALL UNITS IN FEET
VERTICAL DATUM: NAVD83

THIS DRAWING IS THE PROPERTY OF THE CITY OF ARCATA AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE CITY OF ARCATA.

REVISION REVISION 2: 9/2/2008 0 1:00 2:00 3:00 SCALE 1" = 100'		DATE CITY OF ARCATA		DATE 9/10/2008		SCALE 1" = 100'	
DESIGNED BY M. ANIRE		JOB NO. 08-0001-0111 (P&I)		DATE 9/10/2008		SCALE 1" = 100'	
DRAWN BY B. LANG		SHEET 1C		DATE 9/10/2008		SCALE 1" = 100'	
CHECKED BY B. CLARK		OF 10		DATE 9/10/2008		SCALE 1" = 100'	
McDANIEL SLOUGH POND #4 & LEVEL CONSTRUCTION				Legend			
TEMPORARY STOCKPILE LOCATIONS				x POST TOPOGRAPHY SPOTELEVATIONS - - - - - POST TOPOGRAPHY CONTOUR INTERVAL - - - - - PROJECT BOUNDARY - - - - - CREEK			

404

CALIFORNIA COASTAL COMMISSION

NORTH COAST DISTRICT OFFICE
 710 E STREET • SUITE 200
 EUREKA, CA 95501-1865
 VOICE (707) 445-7833
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EXHIBIT NO. 9
APPLICATION NO.
1-09-020-A1 - CITY OF ARCATA
STAFF REPORT & FINDINGS FOR APPROVAL OF ORIGINAL PERMIT (1 of 47)

Filed: May 14, 2009
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 Staff: Melissa B. Kraemer
 Staff Report: May 29, 2009
 Hearing Date: June 12, 2009
 Commission Action:

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: **1-09-020**

APPLICANT: **City of Arcata, Environmental Services Dept.**

PROJECT LOCATION: Arcata, Humboldt County (APNs 501-042-001 and -008).

PROJECT DESCRIPTION: Restore wetland habitat near the margin of Humboldt Bay by 1) reconfiguring approximately 1,634 feet of a channelized reach of Fickle Hill Creek to create an approximately 1,934-foot-long meandering channel that more closely resembles the historic channel alignment; (2) installing 9 to 15 small log/boulder cover structures in the reconfigured channel to increase channel complexity and improve instream habitat; and (3) planting approximately 2.5 acres of native riparian vegetation along the length of the reconfigured channel.

GENERAL PLAN DESIGNATION: Agricultural Exclusive (AE) & Natural Resources (NR).

ZONING DESIGNATION: Agricultural Exclusive (AE) and Natural Resources (NR) with a Wetland and Stream Protection (WSP) Combining Zone Overlay.

OTHER APPROVALS REQUIRED: California Department of Fish and Game CFGC Sec. 1603 Streambed Alteration Agreement No. R1-08-0094 (amendment pending);

SUBSTANTIVE FILE
DOCUMENTS:

North Coast Regional Water Quality Control Board Water
Quality Certification (amendment pending);

U.S. Army Corps of Engineers CWA Section 404 Permit
No. 27434N (amendment pending).

Arcata Baylands Enhancement/Restoration Project
Mitigated Negative Declaration (SCH #2006042056);

City of Arcata certified Local Coastal Program.

SUMMARY OF STAFF RECOMMENDATION

Staff recommends approval with special conditions of the proposed wetland restoration project.

The project area is located primarily on seasonally grazed, seasonal wetlands between Highway 101 and Old Arcata Road (see Exhibit Nos. 1-2). Historically the area was part of the extensive tidal marshes of Humboldt Bay, which were diked off and converted for agricultural purposes over a century ago. Vegetation in the area consists mostly of actively grazed agricultural grasslands comprised of a mix of native and nonnative grasses and forbs. The existing grazed seasonal wetlands do not support habitat for any sensitive plant or animal species. The existing Fickle Hill creek channel may support limited suitable habitat for sensitive fish species such as coastal cutthroat trout during the winter months when the channel is flowing, but due to the lack of riparian cover, stream sinuosity, and instream habitat features, the existing channel currently does not provide sufficient suitable rearing habitat for threatened juvenile salmonids such as coho salmon, Chinook salmon, and steelhead. The existing creek typically dries out completely during the summer months, and cattle graze within and around the stream banks and bottom.

Fickle Hill Creek is an intermittent stream (dries out in the summer months) that runs through the Arcata Baylands project area. Fickle Hill Creek is a tributary to Beith Creek, which flows into Gannon Slough before entering Humboldt Bay. Restoration of Beith Creek and Gannon Slough has been implemented through a series of projects managed by the City since 2003. Since the City installed a fish-friendly tidegate on Gannon Slough in 2006 (under CDP No. 1-05-017), coho and other salmonids have been detected in the lower watershed. The tidegate allows muted tidal exchange to influence the lower reach of Fickle Hill Creek downstream of the project area, enhancing its estuarine function. In general, the Fickle Hill Creek channel historically was dredged, straightened, and bermed, significantly changing its original configuration. The channel also lacks instream structure and riparian cover, in part due to the presence of cattle along and within the watercourse banks.

Using the 1870 U.S. Coast Survey Historic Map as a reference, the City proposes to construct channel meanders along an approximately 1,634-foot-long reach of Fickle Hill Creek (see Exhibit Nos. 4 and 5). The proposed stream channel reconfiguration is intended to provide a more natural channel configuration and would result in a final channel length of approximately 1,934 feet. The City would remove approximately 1,285 cubic yards of material to create the new channel, and place approximately 1,051 cubic yards of excavated material into the

abandoned (existing) channel. Two culverts also would be removed from the abandoned channel. Sod scraped from the excavation areas would be stored and used to revegetate the filled channel areas to maintain the existing site vegetation. The existing channel would be filled to the same level as the surrounding grazed seasonal wetlands, and where it is not proposed to be planted with riparian habitat, the filled channel would be converted to grazed seasonal wetland habitat. Approximately 235 cubic yards of excess fill would be hauled off site to either be used at the McDaniel Slough project (authorized by CDP No. 1-06-036) or disposed of at a City-owned rock quarry. The City would use bulldozers, excavators, loaders, scrapers, and transport vehicles to carry out the proposed amended development. In addition to the channel reconfiguration, the City proposes to place 9 to 15 cover structures within the reconfigured channel to increase channel complexity and improve instream habitat. The cover structures would consist of small logs and boulders anchored into the creek banks. The City also proposes to plant a total of 2.5 acres of native riparian vegetation along the length of the reconfigured channel. Native trees, including red alder (*Alnus rubra*) and Sitka spruce (*Picea sitchensis*), would be planted on 10- to 15-foot centers. Native shrubs, including wax myrtle (*Morella californica*) and red flowering currant (*Ribes sanguineum*), would be interspersed throughout the revegetation area. Concurrent with planting, the City proposes to remove invasive, nonnative plants. Finally, the City proposes to install 1,200 linear feet of temporary, woven wire fencing to protect the vegetation from grazing cattle. The temporary fencing would consist of 7-foot steel T-posts spaced 10 feet apart and driven into the ground approximately 30 inches with no soil removed. The fencing would be removed once the vegetation has matured enough to withstand cattle impacts (perhaps as soon as five years).

The proposed development would result in the creation of 0.3-acre of additional ephemeral (intermittent) instream habitat and would lengthen the channel reach by 300 feet. The City maintains that the proposed work would restore juvenile salmonid winter rearing habitat through the restoration of stream sinuosity, instream habitat cover, and riparian habitat on Fickle Hill Creek. The City also maintains that the project would increase flood capacity by the lengthening of the creek channel and increase connectivity of riparian habitat available for the nesting, wintering, and stopover of waterfowl and passerines.

The proposed channel realignment will reestablish approximately the same configuration of channelized wetland habitat that historically existed in the area prior to the channeling, straightening, and berming of the creek for flood control and agricultural use purposes. Furthermore, the proposed project will restore juvenile salmonid winter rearing habitat by restoring stream sinuosity, increasing cover (via the proposed placement of log/boulder cover structures), and enhancing riparian habitat along the creek. Scientific research has shown that juvenile coho salmon rearing in seasonal streams such as Fickle Hill Creek exhibit relatively high growth rates and tend to emigrate as larger smolts. Thus, the proposed development entails actions taken in converted or degraded natural wetlands (channelized and straightened creek reach) that will result in the reestablishment of landscape-integrated ecological processes associated with the stream habitat. Therefore, staff believes that the proposed channel and instream habitat restoration are consistent with the definition of restoration and constitute filling and dredging for restoration purposes consistent with Section 30233(a)(6).

Planting the 2.5-acre riparian restoration area as proposed (with red alder, Sitka spruce, wax myrtle, and red-flowering currant) will benefit both terrestrial and marine-associated organisms, including threatened marine salmon species. The riparian restoration is proposed adjacent to Fickle Hill Creek, which historically was tidally influenced and continues to maintain tidal flux in its lower reach. Marine riparian zones serve similar functions to those described for freshwater systems and are likely to provide additional functions unique to nearshore ecosystems (Brennan & Culverwell 2004). Riparian areas contribute important organic debris that is transformed into nutrients, which support the marine food web. Wood, leaf litter, and other organic matter from riparian areas provide nutrients for life at the base of the food web. Riparian vegetation supports insects and other prey resources, which are eaten by juvenile salmon and other fish and wildlife. Riparian vegetation also provides cover – both for shade and protection purposes – for aquatic species such as salmonids, which need cool water temperatures for growth and survival and protection from predators such as egrets and herons. Riparian areas capture contaminants; by absorbing or filtering contaminated stormwater runoff, soils and vegetation in marine riparian areas can prevent pollutants from entering coastal waters. Healthy riparian areas support rich and diverse communities of animals that depend on the areas for feeding, breeding, refuge, movement, and migration. Salmonids and many other fish species feed on insects from marine riparian areas. If these areas are altered or eliminated, the food supply and, thus, the abundance of nearshore fish is likely to be reduced. Importantly, riparian areas serve as buffers for human health and safety. The marine riparian functions of water quality, soil stability, and the ability to absorb the impacts of storm surges and other natural, physical assaults on shorelines have direct benefits to humanity. Flooding and storm events can be exacerbated in the absence of marine riparian areas, which can serve as protective buffers.

Thus, the restoration of riparian habitat in the Humboldt Bay area is integral to maintaining optimum populations of marine organisms and for the protection of human health, as is mandated by Section 30231.

Although the proposed riparian restoration will not necessarily reestablish the exact same configuration of wetland habitat that historically existed in the area, the proposed enhancements and restoration of freshwater wetlands entail actions taken in converted or degraded natural wetlands that will result in the reestablishment of landscape-integrated ecological processes associated with wetland habitats. Therefore, staff believes that the proposed restoration is consistent with the definition of restoration and constitute filling and dredging for restoration purposes consistent with Section 30233(a)(6). In addition, staff believes the proposed restoration is consistent with the mandates of Sections 30230 and 30231 of the Coastal Act that marine resources and the biological productivity of coastal waters shall be maintained and enhanced.

Although the project would maintain and enhance marine resources and the biological productivity of coastal waters, the project would convert 2.5 acres of agricultural (grazing) land inconsistent with the provisions of Sections 30241 and 30242 of the Coastal Act. However, staff believes that to not approve the project would result in a failure to maintain and enhance marine resources and the biological productivity of coastal wetlands and waters that would be inconsistent with the mandates of Sections 30230 and 30231. 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 necessary restoration. Finally, staff examined alternatives to the proposed project including (1) alternative sites; (2) alternative configurations of project features; and (3) the no-project alternative. Staff believes that there is no less environmentally damaging feasible alternative to the development as conditioned, as required by Section 30233(a) of the Coastal Act.

Therefore, staff believes the proposed project presents a true conflict between Sections 30241 and 30242 and Sections 30230 and 30231 of the Coastal Act, and staff believes that it is appropriate for the Commission to invoke the conflict resolution policies of Section 30007.5 of the Coastal Act. Staff believes that the impacts on coastal resources from not constructing the project would be more significant than the project's agricultural impacts and would be inconsistent with the mandates of Sections 30230 and 30231 to maintain and enhance marine resources and the biological productivity of coastal waters.

To ensure that the maintenance and enhancement of marine resources and biological productivity envisioned by the project that enables the Commission to use the balancing provision of Section 30007.5 and to characterize the development as filling and dredging for "restoration purposes" pursuant to Section 30233(a)(6) are achieved, staff recommends Special Condition No. 1. Special Condition No. 1 would require the applicants to submit a final monitoring plan to outline a method for measuring and documenting the improvements in habitat value and diversity at the site over the course of five years following project completion. Furthermore, Special Condition No. 1 would require the monitoring plan to include provisions for remediation to ensure that the goals and objectives of the restoration project are met.

Overall, the project would restore and enhance wetland habitat values and would produce generally beneficial environmental effects. However, depending on the manner in which the proposed project is conducted, significant adverse impacts could result, including (1) impacts to marine resources and wildlife habitat from water pollution in the form of sedimentation or debris entering coastal waters and wetlands; (2) introduction (through re-planting) of exotic invasive plants species that could compete with native vegetation and negate the habitat improvements they would provide; (3) use of certain rodenticides that could deleteriously bio-accumulate in predator bird species; (4) impacts to adjacent seasonal wetlands from construction activities; and (5) stranding of fish in the channel during reconstruction of the channel. Therefore, staff recommends Special Condition Nos. 2 through 5 to ensure that potentially significant adverse impacts are minimized. Special Condition No. 2 would require the applicants to undertake the development pursuant to certain construction responsibilities. Special Condition No. 3 would require the applicants to submit a final erosion and runoff control that is to include certain specified water quality best management practices for minimizing impacts to coastal waters. Special Condition No. 4 would prohibit the planting of any plant species listed as problematic and/or invasive and contains a prohibition on the use of anticoagulant-based rodenticides. Finally, Special Condition No. 5 would require submittal of a final equipment staging and stockpiling plan, which designates areas for equipment staging and the temporary stockpiling of construction and fill materials. Staff believes that without Special Condition Nos. 1 through 5, the proposed project could not be approved pursuant to Section 30007.5 of the Coastal Act.

Therefore, staff believes that as conditioned, the proposed development is consistent with all applicable Chapter 3 policies of the Coastal Act.

The Motion to adopt the Staff Recommendation is found on Page 6.

STAFF NOTES

1. Jurisdiction & Standard of Review

The project site is located in the Commission's retained permit jurisdiction. The City of Arcata has a certified Local Coastal Program (LCP), but the site is within an area shown on State Lands Commission maps over which the State retains a public trust interest. Therefore, the standard of review that the Commission must apply to the project is the Chapter 3 policies of the Coastal Act.

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. 1-09-020 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. Final Restoration Monitoring Program

(A). **PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. 1-09-020**, the applicant shall submit for review and approval of the Executive Director, a final detailed restoration monitoring program designed by a qualified biologist for monitoring of the stream restoration site. The monitoring program shall at a minimum include the following:

1. Performance standards that will assure achievement of the restoration goals and objectives set forth in Coastal Development Permit Application No. 1-09-020 as summarized in the Findings IV.B, "Project Description," including, but not limited to, the restoration of (a) the historic channel configuration of Fickle Hill Creek, (b) instream habitat cover in the reconfigured channel, (c) 2.5 acres of native riparian vegetation; and (d) seasonal wetlands along the old channel alignment.
2. Provisions for monitoring at least the following attributes: increased usage of the reconfigured creek areas by (a) over-wintering juvenile salmonids; (b) waterfowl and passerines; and (c) other aquatic and water-associated wildlife.
3. Provisions for submittal within 30 days of completion of the initial restoration work of (a) "as built" plans demonstrating that the initial restoration work has been completed in accordance with the approved restoration program, and (b) an assessment of the initial biological and ecological status of the "as built" enhancements. The assessment shall include an analysis of the attributes that will be monitored pursuant to the program, with a description of the methods for making that evaluation.
4. Provisions to ensure that the restoration site will be remediated within one year of a determination by the permittee or the Executive Director that monitoring results indicate that the site does not meet the goals, objectives, and performance standards identified in the approved restoration program and in the approved final monitoring program.
5. Provisions for monitoring and remediation of the restoration site in accordance with the approved final restoration program and the approved final monitoring program for a period of five (5) years.
6. Provisions for submission of annual reports of monitoring results to the Executive Director by October 1 each year for the duration of the required monitoring period, beginning the first year after submission of the "as-built" assessment. Each report shall include copies of all previous reports as appendices. Each report shall also include a "Performance Evaluation" section where information and results from the monitoring program are used to evaluate the status of the stream restoration project in relation to the performance standards.

7. Provisions for submission of a final monitoring report to the Executive Director at the end of the five-year reporting period. The final report must be prepared in conjunction with a qualified biologist. The report must evaluate whether the restoration site conforms with the goals, objectives, and performance standards set forth in the approved final restoration program. The report must address all of the monitoring data collected over the five-year period.
- (B). If the final report indicates that the restoration project has been unsuccessful, in part, or in whole, based on the approved goals and objectives set forth in Coastal Development Permit Application No. 1-09-020 as summarized in Findings IV.B "Project Description," the applicant shall submit a revised or supplemental restoration program to compensate for those portions of the original program which did not meet the approved goals and objectives set forth in Coastal Development Permit Application No. 1-09-020 as summarized in Finding IV.B "Project Description." The revised restoration program shall be processed as an amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.
 - (C). The permittee shall monitor and remediate the restoration site in accordance with the approved monitoring program. Any proposed changes from the approved monitoring program shall be reported to the Executive Director. No changes to the approved monitoring program shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines no amendment is legally required.

2. Construction Responsibilities

The permittee shall comply with the mitigation measures listed in the Mitigated Negative Declaration (MND) completed for the project (SCH No. 2006042056), including the March 29, 2009 addendum to the MND, except as modified herein. Construction-related requirements shall include, but shall not be limited to, the following Best Management Practices:

- (A). No construction materials, debris, or waste shall be placed or stored where it may be subject to entering coastal waters or wetlands, except within staging areas approved pursuant to Special Condition No. 5;
- (B). Any and all debris resulting from construction activities shall be removed from the project site and disposed of at an authorized disposal location within 10 days of project completion and/or prior to the onset of the rainy season, whichever is earlier;
- (C). All grading activities shall be conducted during the dry season period of June 15 through November 15; any grading activity conducted between October 16 and November 15 shall be subject to the following conditions:
 1. 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 30 percent for the Arcata area portion of the Redwood Coast segment of the National Weather Service's forecast for Northwestern California;

2. 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;
 3. Adequate stocks of stormwater runoff and erosion control barrier materials shall be kept onsite and made available for immediate use.
- (D). No construction shall occur within tidal waters or flowing stream channels;
- (E). 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;
- (F). Any debris discharged into coastal waters shall be recovered immediately and disposed of properly;
- (G). 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. 4, mulched with weed-free rice straw, and/or replaced with sod consistent with subsection (J) below;
- (H). 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 stored or re-fueled within 300 feet of coastal waters;
- (I). 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;
- (J). The top six to ten inches (6-10") of excavated material within grazed seasonal wetlands (i.e., the new reconfigured creek channel) shall be separately stockpiled by the contractor, and the contractor shall assure that this stockpiled soil material is kept moist and that the material is reintroduced as soon as possible to excavation as the top fill material in the old creek channel; and
- (K). Prior to the commencement of construction, the work area shall be delineated, limiting the potential area affected by construction and workers shall be educated about the limitations on construction. All vehicles and equipment shall be restricted to pre-established work areas and established or designated access routes.

3. Erosion & Runoff Control Plan

- (A). **PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. 1-09-020**, the applicant shall submit, for review and approval of the Executive Director, a plan for erosion and run-off control.
1. The plan shall demonstrate the following:

- (a). Run-off from the project site shall not increase sedimentation in coastal waters or wetlands;
 - (b). Run-off from the project site shall not result in pollutants entering coastal waters or wetlands;
 - (c). Best Management Practices (BMPs) shall be used to prevent the entry of polluted stormwater runoff into coastal waters or adjacent wetlands during construction, including use of relevant best management practices (BMPs) as detailed in the "California Storm Water Best Management (Construction and Industrial/Commercial) Handbooks, developed by Camp, Dresser & McKee, *et al.* for the Storm Water Quality Task Force; see <http://www.cabmphandbooks.com>);
 - (d). 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; and
 - (e). The erosion and runoff control plan shall be consistent with the provisions of Special Condition No. 2 (Construction Responsibilities) and all other terms and conditions of Coastal Development Permit No. 1-09-020.
2. The plan shall include, at a minimum, the following components:
- (a). 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 run-off leaving the construction site; and
 - (b). A schedule for installation, use, and maintenance of appropriate construction materials handling and storage BMPs to prevent the entry of polluted stormwater runoff from the completed development into coastal waters.
- (B). The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

4. **Restoration Site Revegetation**

The restoration area along the reconfigured creek channel shall be revegetated as proposed and shall comply with the following standards and limitations:

- (A). Only native plant species shall be planted. 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 property.
- (B). All planting shall be completed within 60 days after completion of construction.
- (C). The use of rodenticides containing any anticoagulant compounds, including, but not limited to, Bromadiolone, Brodifacoum or Diphacinone shall not be used.
- (D). All proposed plantings shall be maintained in good growing conditions throughout the life of the project, and whenever necessary, shall be replaced with new plant materials to ensure continued compliance with the landscape plan.

5. Final Debris Disposal and Equipment Access, Staging, & Stockpiling Plans

- (A). **PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. 1-08-011**, the applicant shall submit, for review and approval of the Executive Director, a final plan detailing the locations of site construction activities, equipment access, and materials storage and staging areas, as well as proposed disposal locations.
 - 1. The final plan shall demonstrate the following:
 - (a). No excavated materials to be removed shall be temporarily placed or stored during grading activities where it may be subject to entering wetlands or other coastal waters, except within designated staging areas;
 - (b). Erosion control techniques shall be implemented around the temporarily stored spoil material;
 - (c). All of the fill to be removed shall either be: (i) placed and used pursuant to and consistent with a valid coastal development permit, as well as consistent with the terms and conditions of this permit (CDP No. 1-09-020); or (ii) disposed of at an authorized disposal site capable of receiving such fill materials (e.g., CDP 1-03-004, Reclamation District No. 768, Applicant; or CDP No. 1-06-036, City of Arcata, Applicant). Side casting or placement of any such material within Arcata Bay, any slough, waterway, streamcourse, or lake, or any other wetland area, including any grazed seasonal wetlands, except as specified above is prohibited;
 - (d). Excavated materials removal activities shall not occur during the rainy season consistent with Special Condition No. 2;

- (e). All staging and stockpiling areas to be located in seasonal wetlands shall be limited to a 20-foot-wide strips along both sides of the existing and reconfigured channels; and
 - (f). Upon completion of project activities in the area and prior to November 15 of each year, all temporarily disturbed seasonal wetlands (including but not limited to temporary staging areas, stockpiling areas, and access roads) shall be decompacted and reseeded, as needed, with a mix of regionally appropriate native grasses and/or noninvasive agricultural species. 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 property.
2. The plan shall include, at a minimum, the following components:
- (a). A site plan drawn to scale showing all proposed locations for equipment access, staging, and stockpiling of materials, debris, and waste;
 - (b). A schedule for removal of all debris; and
 - (c). A narrative plan describing all proposed measures for restoring seasonal wetland areas disturbed by temporary access roads and staging and stockpiling areas.
- (B). The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

6. Protection of Archaeological Resources

- (A). If an area of historic or prehistoric cultural resources or human remains are discovered during the course of the project, all construction shall cease and shall not recommence except as provided in subsection (B) hereof, and a qualified cultural resource 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.

7. California Department of Fish & Game Approval

PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. 1-09-020, the applicant shall provide to the Executive Director a copy of a permit or permit amendment issued by the California Department of Fish and Game, or evidence that no permit 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.

8. Regional Water Quality Control Board Approval

PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. 1-09-020, the applicant shall provide to the Executive Director a copy of a permit or permit amendment 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.

9. U.S. Army Corps of Engineers Approval

PRIOR TO COMMENCEMENT OF ANY 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.

10. State Lands Commission Review

PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT NO. 1-09-020, 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.

11. Grazed Seasonal Wetland Vegetation Monitoring

Within 18 months of completion of development authorized by CDP No. 1-09-020, the permittee shall submit, for the review and written approval of the Executive Director, a vegetation monitoring report prepared by a qualified biologist or botanist which evaluates whether the objective of reestablishing vegetation in all portions of the project area designed to re-established as seasonal wetland areas (diked former tidelands) to a level of coverage and density equivalent to vegetation coverage and density of the surrounding undisturbed areas has been achieved. If the report indicates that the revegetation of any of the disturbed areas, including the temporary access roads and staging areas, has not been successful, in part or in whole, the permittee shall submit a revised revegetation program to achieve the objective. The revised revegetation program shall require an amendment to Coastal Development Permit No. 1-09-020.

IV. FINDINGS & DECLARATIONS

The Commission hereby finds and declares as follows:

A. Background & Environmental Setting

The proposed project is part of a larger project effort known as the “Arcata Baylands Project,” which was designed to protect, restore, and enhance freshwater habitats adjacent to northern Humboldt Bay. The project area is part of the larger Humboldt Bay ecosystem that accommodates fish, waterfowl, wading birds, shorebirds, passerines, raptors, and other water-associated wildlife (Exhibit Nos. 1 and 2). Humboldt Bay is second only to San Francisco Bay in the numbers and variety of migratory water-associated birds wintering in the coastal segment of the Pacific Flyway of California. The bay is one of California’s most important stopovers for dozens of species of migrating birds, which use the area for nesting, feeding, and resting. Over 200 species of birds (18 of them State-listed as “endangered” or “species of special concern”) have been recorded in and around the project vicinity.

The 588-acre property on which the project is located is part of a larger conservation protection and enhancement effort in the Humboldt Bay region designed to help establish a connectivity of habitat encompassing over 1,300 acres of locally-, state-, and federally-protected lands adjacent to the northern edge of Humboldt Bay (Arcata Bay). The project lands are owned and managed by the City in perpetuity for the conservation of coastal wetland habitats and the wildlife resources that depend on them. The project area is adjacent to or near a suite of protected lands including the Humboldt Bay National Wildlife Refuge, the 225-acre Arcata Marsh and Wildlife Sanctuary, the 508-acre California Department of Fish and Game (CDFG) Mad River Slough Wildlife Area, and lands owned and managed for conservation by the Jacoby Creek Land Trust. Additional restoration efforts that the applicant has undertaken in the project vicinity over the past six years include the following:

- CDP No. 1-03-031: In November of 2003 the Commission approved this permit for the City to construct cattle exclusion fencing to enclose an 8.7-acre area along a 2,537-foot reach of lower Campbell Creek/Gannon Slough, a tributary to Humboldt Bay, and re-vegetate the enclosed area with native plants to result in substantial water quality improvement and restoration of terrestrial and aquatic habitat diversity along the lower reaches of the watercourse.
- CDP No. 1-05-017: In June of 2005 the Commission approved this permit for the City to restore several creeks and sloughs by: 1) improving riparian habitat, increasing canopy cover, providing future large woody debris recruitment for salmonids by realigning a 910-foot reach of Campbell Creek currently flowing through an artificial drainage ditch adjacent to Highway 101; 2) repairing an existing and non-functioning tidegate structure separating Gannon Slough from Humboldt Bay and replacing it with a side-hinged gate with a muted opening to provide access for anadromous salmonids; 3) providing enhanced floodplain and fish habitat structure by restoring a definable channel along an 850-foot reach of Beith Creek; and 4) installing livestock exclusion fencing and planting native trees and shrubs on both Campbell and Beith Creeks. The project was designed to restore terrestrial and aquatic habitat diversity along the lower reaches of the watercourses. In August of 2006 the Commission approved an amendment to the permit (CDP Amendment No. 1-05-017-A1) to extend the floodplain rehabilitation work on Beith Creek an additional 1,454 feet downstream from the previous bounds of the originally-approved project area to the confluence with Gannon Slough to further restore terrestrial and aquatic habitat diversity along the lower creek reaches.
- CDP No. 1-06-036: In June of 2007 the Commission approved this permit for the City to restore and enhance wetland function to 240 acres of reclaimed former tidal salt/brackish marsh to a combination of 205 acres of intertidal salt marsh wetlands and 35 acres of impounded freshwater and brackish wetlands by: 1) excavating the pond areas; 2) deepening approximately 5,200 lineal feet of existing slough channels within the reclaimed area; 3) constructing approximately 21,000 lineal feet of flood, eco-levee, and pond perimeter levees around the periphery of the project component areas; 4) removing a total of approximately 1,200 lineal feet of portions of portions of the existing flood control levees along the lower reaches of McDaniel Slough to form roosting islands out of the remnant portions of the levees; 5) breaching the reclamation levee separating the project site from Arcata Bay at two locations to form muted tidal openings to provide access for anadromous salmonids, tidewater goby, and other marine fish species; 6) planting appropriate elevation-specific native saltmarsh plants on the inner faces of the eco levees; and 7) developing pedestrian and bicycle trail segments along the pond perimeters and out to the reclamation levee breach site.
- CDP No. 1-08-011: In August of 2008 the Commission approved the permit for the City to enhance four seasonal freshwater wetland areas totaling 12.4 acres and to install water-control structures to allow for continued seasonal agricultural grazing in the affected areas. The project was designed to provide habitat benefits for waterfowl, shorebirds, and other water-associated wildlife while maintaining agricultural and Aleutian Cackling

Goose habitat. The project included enhancing an existing seasonal wetland area surrounding a portion of Fickle Hill Creek upstream of the proposed project area

The City's landscape-level management approach seeks to provide a diverse complex of habitat types in the northern Humboldt Bay area. See Exhibit No. 3 for the location of the proposed project in relation to these other protected lands.

The project area is located primarily on seasonally grazed, seasonal wetlands between Highway 101 and Old Arcata Road (Exhibit Nos. 1-2). Historically the area was part of the extensive tidal marshes of Humboldt Bay, which were diked off and converted for agricultural purposes over a century ago. Vegetation in the area consists mostly of actively grazed agricultural grasslands comprised of a mix of native and nonnative grasses and forbs. The existing grazed seasonal wetlands do not support habitat for any sensitive plant or animal species. The existing Fickle Hill creek channel may support limited suitable habitat for sensitive fish species such as coastal cutthroat trout during the winter months when the channel is flowing, but due to the lack of riparian cover, stream sinuosity, and instream habitat features, the existing channel currently does not provide much suitable rearing habitat for threatened juvenile salmonids such as coho salmon, Chinook salmon, and steelhead. The existing creek typically dries out completely during the summer months, and cattle graze within and around the stream banks and bottom.

The project area is inundated with stormwater runoff each winter and has such saturated soils that much of the area is not available for grazing for five to seven months each year, depending on rainfall. In the summer these areas are grazed by cattle. The City currently leases the project area properties to three ranchers who will continue to ranch the area post implementation of the proposed development. The area soils have been classified as Ba3 – Bayside Silty Clay Loam (McLaughlin & Harradine 1965), poorly to imperfectly drained. More recently the soils have been classified as 140 – Occidental, 0-2% slopes, very poorly drained (NRCS 2009). No prime agricultural soils occur within the Baylands project area.

Fickle Hill Creek is an intermittent stream (dries out in the summer months) that runs through the Arcata Baylands project area. Fickle Hill Creek is a tributary to Beith Creek, which flows into Gannon Slough before entering Humboldt Bay (Exhibit No. 2). As mentioned above, restoration of Beith Creek and Gannon Slough has been implemented through a series of projects managed by the City since 2003. Since the City installed a fish-friendly tidegate on Gannon Slough in 2006 (under CDP No. 1-05-017), coho and other salmonids have been detected in the lower watershed. The tidegate allows muted tidal exchange to influence the lower reach of Fickle Hill Creek downstream of the project area, enhancing its estuarine function. In general, the Fickle Hill Creek channel historically was dredged, straightened, and bermed, significantly changing its original configuration. The channel also lacks instream structure and riparian cover, in part due to the presence of cattle along and within the watercourse banks.

Project area zoning under Arcata's certified LCP is both Agriculture Exclusive (AE) and Natural Resources (NR) with a Wetland and Creek Protection Overlay Zone. The area is within the 100-year FEMA floodplain. With the exception of Highway 101's Class II bike lanes, there are no coastal access and recreational amenities for hiking, cycling, bird-watching, and boating in the

immediate project vicinity. However, numerous such activities centered around Arcata Bay and its saltwater tidal margins are available nearby at the Arcata Marsh and Wildlife Sanctuary, the Butcher Slough Restoration Project, the Arcata Marsh Interpretative Center, and the Department of Fish and Games Mad River Slough Restoration Area, across Highway 101 to the west and south of State Route 255, along the northern shoreline of the bay.

B. Description of Proposed Development

Using the 1870 U.S. Coast Survey Historic Map as a reference, the City proposes to construct channel meanders along an approximately 1,634-foot-long reach of Fickle Hill Creek (Exhibit Nos. 4 and 5). The proposed stream channel reconfiguration is intended to provide a more natural channel configuration and would result in a final channel length of approximately 1,934 feet. The City would remove approximately 1,285 cubic yards of material to create the new channel, and place approximately 1,051 cubic yards of excavated material into the abandoned (existing) channel. Two culverts also would be removed from the abandoned channel. Sod scraped from the excavation areas would be stored and used to revegetate the filled channel areas to maintain the existing site vegetation. The existing channel would be filled to the same level as the surrounding grazed seasonal wetlands, and where it is not proposed to be planted with riparian habitat, the filled channel would be converted to grazed seasonal wetland habitat. Approximately 235 cubic yards of excess fill would be hauled off site to either be used at the McDaniel Slough project (authorized by CDP No. 1-06-036) or disposed of at a City-owned rock quarry. The City would use bulldozers, excavators, loaders, scrapers, and transport vehicles to carry out the proposed amended development. In addition to the channel reconfiguration, the City proposes to place 9 to 15 cover structures within the reconfigured channel to increase channel complexity and improve instream habitat. The cover structures would consist of small logs and boulders anchored into the creek banks. The City also proposes to plant a total of 2.5 acres of native riparian vegetation along the length of the reconfigured channel. Native trees, including red alder (*Alnus rubra*) and Sitka spruce (*Picea sitchensis*), would be planted on 10- to 15-foot centers. Native shrubs, including wax myrtle (*Morella californica*) and red flowering currant (*Ribes sanguineum*), would be interspersed throughout the revegetation area. Concurrent with planting, the City proposes to remove invasive, nonnative plants. Finally, the City proposes to install 1,200 linear feet of temporary, woven wire fencing to protect the vegetation from grazing cattle. The temporary fencing would consist of 7-foot steel T-posts spaced 10 feet apart and driven into the ground approximately 30 inches with no soil removed. The fencing would be removed once the vegetation has matured enough to withstand cattle impacts (perhaps as soon as five years).

The proposed development would result in the creation of 0.3-acre of additional ephemeral (intermittent) instream habitat and would lengthen the channel reach by 300 feet. The City maintains that the proposed work would restore juvenile salmonid winter rearing habitat through the restoration of stream sinuosity, instream habitat cover, and riparian habitat on Fickle Hill Creek. The City also maintains that the project would increase flood capacity by the lengthening of the creek channel and increase connectivity of riparian habitat available for the nesting, wintering, and stopover of waterfowl and passerines.

The City proposes to minimize impacts to seasonal wetlands, agricultural lands, and water quality in the project area through the following mitigation measures:

- Construction activities would only occur between June 15th and October 31st to avoid or minimize soil compaction and sediment transport;
- In the event of unseasonable rainfall, construction would not occur during periods when any surface runoff occurs on exposed soil due to rainfall;
- All exposed soils that could erode into creek channels would be seeded, mulched with weed-free straw mulch, or have sod replaced;
- No equipment would operate directly within tidal waters or flowing stream channels;
- No construction materials, debris, or waste would be placed or stored where it could enter or be washed by rainfall into coastal waters;
- Sediment controls would be in place for work occurring in or near creeks; and
- Equipment refueling and maintenance would take place only in designated areas where potential spills of fuel, lubricants, or coolants could be contained and cleaned up without impacts to aquatic habitats.

The City proposes to use an approximately 20-foot-wide area around the length of the existing channel and the proposed reconfigured channel for the construction work area and the temporary stockpiling of sod during excavation.

In addition, the Commission notes that the applicant has been or will be obtaining several other permits and associated authorizations for the project from other agencies that have or will contain terms and conditions for avoiding or minimizing impacts to coastal resources and the environment (see “Other Approvals” listed on page 2).

C. Restoration of Marine Resources, Biological Productivity, and Permissible Filling, Dredging, & Diking of Wetlands

1. Applicable Coastal Act Policies & Standards

Coastal Act Section 30230 states as follows:

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

Coastal Act Section 30231 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.]

Coastal Act Section 30233 provides as follows, in applicable part:

(a) *The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*

(6) *Restoration purposes* ...

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

2. Consistency Analysis

The proposed project will fill an approximately 1,634-foot-long reach of Fickle Hill Creek, which historically was dredged, straightened, and bermed, significantly changing its original configuration. At the same time the project will use the 1870 U.S. Coast Survey Historic Map as a reference to restore an approximately 1,934-foot-long meandering channel in the same reach by dredging existing grazed seasonal wetlands. Additionally, the proposed project will place 9 to 15 cover structures (consisting of small boulders and logs) within the reconfigured channel to increase channel complexity and improve instream habitat. Finally, the project will plant approximately 2.5 acres of riparian vegetation along the length of the newly reconfigured channel. Thus, the project involves both dredging and filling of intermittent (ephemeral) riverine wetlands. The proposed development will result in a net gain of 0.3-acre of intermittent creek instream habitat, lengthening the channel reach by 300 feet. At the same time the project will result in a net decrease of about 0.3-acre of grazed seasonal wetlands (which will be restored/converted to the historic channel habitat).

Coastal Act Sections 30230 and 30231 require, in part, that marine resources and coastal wetlands 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.

When read together as a suite of policy directives, Sections 30230, 30231, and 30233 set 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.

a. Permissible Use for Diking, Dredging, & Filling

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. The relevant category of use listed under Section 30233(a) that relates to the proposed project is subcategory (6), "restoration purposes."

The project proposes to restore 1,934 feet (at a net gain of 300 feet) of intermittent riverine wetlands to restore and enhance juvenile salmonid winter rearing habitat. 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."¹ The particular restorative methods and outcomes vary depending upon the subject being 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."² However, within the field of "wetland restoration," 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"³ 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,

¹ Merriam-Webster's Collegiate Dictionary, Tenth Edition

² "Definitions," *Society of Ecological Restoration News*, Society for Ecological Restoration; Fall, 1994

³ *Position Paper on the Definition of Wetland Restoration*, Society of Wetland Scientists, August 6, 2000

reflecting the homeostatic natural forces that formed and sustained the original conditions before being artificially altered or degraded.

Moreover, finding that proposed diking, filling, and dredging 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 diking, filling, and dredging impacts of the project actually result in long term degradation of the habitat, the proposed diking, filling, and dredging would not be for “restoration purposes.” These two characteristics 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 the project achieves its stated habitat enhancement objectives, and therefore 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; and (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 noted above, the applicant proposes to use the 1870 U.S. Coast Survey Historic Map as a reference to restore a 1,634-foot-long channelized, straightened, and bermed reach of Fickle Hill Creek to its 1,934-foot-long historic meandering channel alignment. Although the area surrounding proposed project reach historically was part of the extensive tidal marshes of Humboldt Bay, which were diked off and converted for agricultural purposes over a century ago, the surrounding areas now function as freshwater seasonal wetlands that are grazed by cattle seasonally. The proposed project will involve restoring the historic channel alignment of the creek within the complex of the diked former tidelands. The project proposes to plant the length of the restored channel banks over a 2.5-acre area with a diversity of native riparian vegetation. As discussed above, the proposed development will result in a net gain of 0.3-acre of intermittent creek instream habitat and a net decrease of about 0.3-acre of grazed seasonal wetlands (which will be restored/converted to the historic channel habitat).

The proposed channel realignment will reestablish approximately the same configuration of channelized wetland habitat that historically existed in the area prior to the channeling, straightening, and berming of the creek for flood control and agricultural use purposes. Furthermore, the proposed project will restore juvenile salmonid winter rearing habitat by restoring stream sinuosity, increasing cover (via the proposed placement of log/boulder cover structures), and enhancing riparian habitat along the creek. Scientific research has shown that juvenile coho salmon rearing in seasonal streams such as Fickle Hill Creek exhibit relatively high growth rates and tend to emigrate as larger smolts. Thus, the proposed development entails actions taken in converted or degraded natural wetlands (channelized and straightened creek

reach) that will result in the reestablishment of landscape-integrated ecological processes associated with the stream habitat. Therefore, the Commission finds that the proposed channel and instream habitat restoration are consistent with the definition of restoration and constitute filling and dredging for restoration purposes consistent with Section 30233(a)(6).

Planting the 2.5-acre riparian restoration area as proposed (with red alder, Sitka spruce, wax myrtle, and red-flowering currant) will benefit both terrestrial and marine-associated organisms. Riparian zones are just one of the many habitat elements in the marine nearshore environment, and one that is extremely restricted and reduced in the Humboldt Bay area. Riparian zones around Humboldt Bay today are only a fraction of their size compared to 150 years ago, as land has been drained, logged, and cleared for agriculture and residential, commercial, and industrial development. Humboldt Bay and its surrounding habitats are an important stopover point for hundreds of species of birds as they travel the Pacific Flyway, an “aerial highway” used by birds that nest in the far north and migrate to wintering areas in North and South America. Riparian habitat in particular is crucial habitat for many migratory and resident bird species that need the habitat for nesting, roosting, and foraging. Additionally, the wetland habitats around Humboldt Bay, including riparian zones, are important for over 40 species of mammals and over 100 species of fish and marine invertebrates.

The riparian restoration is proposed adjacent to Fickle Hill Creek, which historically was tidally influenced and continues to maintain tidal flux in its lower reach. Marine riparian zones serve similar functions to those described for freshwater systems and are likely to provide additional functions unique to nearshore ecosystems (Brennan & Culverwell 2004). Riparian areas contribute important organic debris that is transformed into nutrients, which support the marine food web. Wood, leaf litter, and other organic matter from riparian areas provide nutrients for life at the base of the food web. Riparian vegetation supports insects and other prey resources, which are eaten by juvenile salmon and other fish and wildlife. Riparian vegetation also provides cover – both for shade and protection purposes – for aquatic species such as salmonids, which need cool water temperatures for growth and survival and protection from predators such as egrets and herons. Riparian areas capture contaminants; by absorbing or filtering contaminated stormwater runoff, soils and vegetation in marine riparian areas can prevent pollutants from entering coastal waters. Healthy riparian areas support rich and diverse communities of animals that depend on the areas for feeding, breeding, refuge, movement, and migration. Salmonids and many other fish species feed on insects from marine riparian areas. If these areas are altered or eliminated, the food supply and, thus, the abundance of nearshore fish is likely to be reduced. Importantly, riparian areas serve as buffers for human health and safety. The marine riparian functions of water quality, soil stability, and the ability to absorb the impacts of storm surges and other natural, physical assaults on shorelines have direct benefits to humanity. Flooding and storm events can be exacerbated in the absence of marine riparian areas, which can serve as protective buffers.

Thus, the restoration of riparian habitat in the Humboldt Bay area is integral to maintaining optimum populations of marine organisms and for the protection of human health, as is mandated by Section 30231.

The Commission notes that historically Fickle Hill Creek was tidally influenced in its lower reach. Currently there is a fish-friendly tidegate at the mouth of Gannon Slough that allows for muted tidal influence to the lower portion of the watershed, but restoring tidal influence to the proposed project area would require the flooding of existing infrastructure owned by the Pacific Gas & Electric Company (transmission lines) and the City of Eureka (municipal water pipeline) as well as community ball fields and private properties used for agricultural grazing. Therefore, while it is possible to restore Fickle Hill Creek to its historic channel configuration, as proposed, it is infeasible to restore the creek to its historic tidal influence.

As discussed above, this finding that the proposed project constitutes “restoration purposes” is based, in part, on the assumption that the proposed project will be successful in recreating the historic channel configuration and increasing stream channel habitat values. Should the project be unsuccessful, or worse, if the proposed filling and dredging impacts of the project actually result in long term degradation of the habitat, the proposed diking, filling, and dredging would not be for “restoration purposes.” To ensure that the proposed project achieves the objectives for which it is intended (*i.e.*, for the restoration of the historic channel configuration and an increase in instream habitat values), the Commission attaches **Special Condition No. 1**. Special Condition No. 1 requires the applicant to submit a final monitoring plan for review and approval by the Executive Director prior to the issuance of the permit. The monitoring plan is required to outline a method for measuring and documenting the improvements in habitat value and diversity at the site over the course of five years following project completion. Furthermore, Special Condition No. 1 requires the monitoring plan to include provisions for remediation to ensure that the goals and objectives of the wetland restoration project are met.

Therefore, the Commission concludes that the proposed dredging and filling of stream channel wetlands for the restoration and enhancement of salmonid habitat is permissible under Section 30233(a)(6) for “restoration purposes.” Although the proposed riparian restoration will not necessarily reestablish the exact same configuration of wetland habitat that historically existed in the area, the proposed enhancements and restoration of freshwater wetlands entail actions taken in converted or degraded natural wetlands that will result in the reestablishment of landscape-integrated ecological processes associated with wetland habitats. Therefore, the Commission finds that the proposed wetland enhancements are consistent with the definition of restoration and constitute filling and dredging for restoration purposes consistent with Section 30233(a)(6).

b. Alternatives Analysis

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

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

Alternatives to the proposed project that were examined include (1) the no-project alternative; and (2) alternative sites; and (3) alternative methods. As explained below, each of these alternatives are infeasible and/or do not result in a project that is less environmentally damaging than the proposed project.

(i) No-Project Alternative

The “no project” alternative would maintain the *status quo* of the site and would not restore over 1,900 feet of intermittent riverine wetlands as proposed. Existing conditions on the project site consist of an approximately 1,600-foot-long reach of channelized, straightened, and bermed creek habitat, which historically was altered for flood control and agricultural use purposes. Under the “no project” alternative, the existing creek reach would continue to function as a degraded, altered watercourse devoid of habitat value for marine resources such as juvenile salmonids. Under the “no project” alternative, there would be no restoration of stream sinuosity, no increase in instream cover, and no increase in riparian cover – all of which are essential components of a healthy stream environment capable of supporting marine resources such as over-wintering juvenile coho salmon. Furthermore, the biological productivity of the coastal waters would not be improved, including improved habitat value for a diversity of sensitive plant and animal species and habitats, including riparian vegetation, anadromous salmonids, a variety of shorebirds, waterfowl, and passerines, and others. Accordingly, taking into consideration the economic, environmental, and social factors, the “no project” option is not a feasible less environmentally damaging alternative than the proposed project as conditioned.

(ii) Alternative Sites

The City explored this alternative in its preparation to acquire the subject property and implement the proposed restoration/enhancement activities in cooperation with the U.S. Fish and Wildlife Service (FWS) and the California Coastal Conservancy using grant funding from the FWS National Coastal Wetlands Grant Program. Certain types of restoration and enhancement activities could occur on other parcels located near the project site if there were willing landowners. However, according to the City, other private property owners are not interested in selling or leasing their properties. At this time, no other feasible sites are available for acquisition or implementing of enhancement and restoration work. During the site evaluation process, the proposed acquisition areas and existing City-owned lands were identified as the only feasible sites for FWS-funded restoration due to ownership and land use constraints. Furthermore, as the City is proposing to restore the historic configuration of the Fickle Hill Creek channel using the 1870 historic map as a reference, the proposed site is the only feasible location for this restoration activity given the available data. Therefore, implementing the project at an alternative location is not a feasible less environmentally damaging alternative than the proposed project as conditioned.

(iii) Alternative Methods

Under the proposed method for reconfiguring the creek channel to its historic creek alignment, heavy equipment will be used to excavate the new meandering channel and to fill in the existing straightened channel. Heavy equipment is required to complete the restoration work, which will require the excavation and removal of over 1,200 cubic yards of material. Although avoiding the

use of heavy equipment would help to reduce environmental effects, a feasible alternative to heavy equipment does not exist.

Under the proposed work, equipment access and temporary stockpiling areas will be sited in grazed seasonal wetland habitat. The applicant proposes to access the site off of Highway 255 (near the California Highway Patrol station), with construction equipment traversing southward approximately ¼-mile across grazed seasonal wetlands to the project area. As work is proceeding along the channel, the City proposes to temporarily stockpile sod as needed along the creek corridor to enable it to be placed as the top layer of fill within the filled channel. The City proposes to use an approximately 20-foot-wide area around the length of the existing channel and the proposed reconfigured channel for the construction work area and the temporary stockpiling of sod during excavation. Although siting the construction access and temporary stockpiling areas outside of seasonal wetlands would help to reduce environmental effects, a feasible alternative to siting the access and stockpiling areas within seasonal wetlands does not exist, since there are no upland alternatives within the project vicinity. However, the City proposes to minimize impacts to grazed seasonal wetland habitat by restricting the construction window to the dry season when seasonal wetland soils are hardened and avoiding work during unforeseen rainfall events.

Another alternative method to the proposed project would be to construct the project in a way that restores tidal influence to the project reach. As stated above, historically Fickle Hill Creek was tidally influenced in its lower reach, and currently there is a fish-friendly tidegate at the mouth of Gannon Slough that allows for muted tidal influence to the lower portion of the watershed. However, fully restoring tidal influence to the proposed project area would require the flooding of existing infrastructure owned by the PG&E and the City of Eureka (municipal water pipeline) as well as community ball fields and private properties used for agricultural grazing. Therefore, while it is possible to restore Fickle Hill Creek to its historic channel configuration, as proposed, it is infeasible to restore the creek to its historic tidal influence.

Therefore, implementing the project using alternative methods is not a feasible less environmentally damaging alternative than the proposed project as conditioned.

Conclusion

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

c. Feasible Mitigation Measures

The third test set forth by Section 30233 is whether feasible mitigation measures have been provided to minimize adverse environmental impacts. The development would be located within and around coastal waters and wetlands. Depending on the manner in which the proposed project is conducted, the significant adverse impacts of the project may include (1) impacts to fish and wildlife habitat from water pollution in the form of sedimentation or debris entering coastal waters and wetlands; (2) introduction through re-planting of exotic invasive plants

species that could compete with native vegetation and negate the habitat improvement they would provide; (3) use of certain rodenticides that could deleteriously bio-accumulate in predator bird species; (4) impacts to adjacent seasonal wetlands from construction activities; and (5) stranding of fish in the channel during reconstruction of the channel. Overall, the project would enhance wetland habitat values and would produce generally only beneficial environmental effects. However, the proposed project has been conditioned to ensure that habitat enhancement results and that potentially significant adverse impacts are minimized. The potential impacts and their mitigation are discussed below in the following sections.

(i) Sedimentation Impacts to Aquatic Habitat & Water Quality

The proposed project is being undertaken to benefit marine resources such as salmonids as well as passerines, waterfowl, and other water-associated wildlife. The existing creek provides habitat for a number of fish and amphibian species, and the surrounding seasonal wetlands provide habitat to a wide range of avian species.

Potential adverse impacts to both existing and to-be-restored/enhanced fish and wildlife habitat related water quality could occur in the form of sedimentation or debris from channel excavation work. Additionally, impacts to sensitive fish species, including coho salmon (*Oncorhynchus kisutch*), steelhead (*O. mykiss*), and coastal cutthroat trout (*O. clarki clarki*), could occur during project activities within Fickle Hill Creek. The project involves dredging a new creek channel to match the 1870 historic channel configuration and filling in the existing straightened creek channel. If not constructed properly, fish stranding could occur within this restored stream habitat.

Although the project description states that such impacts would be prevented and minimized by conducting the ground-disturbing work during the dry weather season and through incorporating various other best management practices, the application provides few details as to precisely how this excavation would be performed relative to the potential for materials to become entrained into coastal waters during the construction and the potential for impacts to surrounding grazed seasonal wetlands.

To ensure that adverse impacts to water quality do not occur from construction activities, the Commission attaches Special Condition Nos. 2 and 3. **Special Condition No. 2** requires the applicant to undertake the development pursuant to certain construction responsibilities. These include, but are not limited to, the following: (a) no construction materials, debris, or waste are to be placed or stored where they may enter coastal waters; (b) any and all debris resulting from construction activities shall be removed from the project site and disposed of at an authorized disposal location; (c) the construction window shall be limited to the dry season (June 1-November 15), and any grading between October 16 and November 15 shall only be conducted if conditions remain dry, the predicted chance of rain is less than 30 percent, and appropriate BMPs are in place; (d) no construction shall occur within tidal waters or flowing stream channels; (e) 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; (f) any debris

discharged into coastal waters shall be recovered immediately and disposed of properly; (g) 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. 4, mulched with weed-free rice straw, and/or replaced with sod consistent with subsection (J) below; (h) any fueling and maintenance of construction equipment shall occur within upland areas outside of environmentally sensitive habitat areas or within designated staging areas; and (i) 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 any accidental spill shall be rapidly contained and cleaned up, and meet other specifications. **Special Condition No. 3** similarly requires the applicant to submit, for the Executive Director's review and approval, an erosion and runoff control plan that is to include certain specified water quality best management practices for minimizing impacts to coastal waters and surrounding wetlands that are consistent with the construction responsibilities required by Special Condition No. 2.

(ii) *Introduction of Exotic Invasive Plants*

The use of non-invasive plant species adjacent to environmentally sensitive habitat areas (ESHAs) is critical to protecting such areas from disturbance. If invasive species are planted adjacent to an ESHA they can displace native species and alter the composition, function, and biological productivity of the ESHA.

The City is proposing to set aside the sod layer from the reconfigured channel excavation and use it as topfill on the old channel that is to be filled. **Special Condition No. 2-(J)** requires that the City, as proposed, stockpile separately the top six to ten inches (6-10") of excavated material within grazed seasonal wetlands (which contains the root masses, rhizomes, seeds, and accumulated organic material of the vegetation that dominates these seasonal wetlands), and reintroduce this sod layer into the filled (old) Fickle Hill Creek channel as the top fill material as soon as possible following excavation.

Additionally, the City proposes to plant approximately 2.5 acres of native riparian vegetation along the reconfigured creek channel. However, the proposed project does not further specify the source or composition of the plants nor precludes the planting of other plant species beyond those identified in the permit application.

To ensure that no invasive plant species are seeded in the project area, **Special Condition No. 4** prohibits the planting of any 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. Furthermore, no plant species listed as a "noxious weed" by the governments of the State of California or the United States are to be utilized in the revegetation portion of the project.

(iii) Use of Anticoagulant-based Rodenticides

To help in the establishment of vegetation, rodenticides are sometimes used to prevent rats, moles, voles, and other similar small animals from eating the newly planted saplings. Certain rodenticides, particularly those utilizing blood anticoagulant compounds such as brodifacoum, bromadiolone and diphacinone, have been found to pose significant primary and secondary risks to non-target wildlife present in urban and urban/wildland areas. As the target species are preyed upon by raptors or other environmentally sensitive predators and scavengers, these compounds can bio-accumulate in the animals that have consumed the rodents to concentrations toxic to the ingesting non-target species.

To avoid this potential cumulative impact to environmentally sensitive wildlife species, **Special Condition No. 4** contains a prohibition on the use of such anticoagulant-based rodenticides.

(iv) Impacts to Adjacent Seasonal Wetlands

The proposed project will be conducted in and around seasonal wetlands. The wetland vegetation on the site is not particularly abundant or diverse in comparison with other wetland habitats around Humboldt Bay because of its current and historic use as pasture for cattle grazing. Nonetheless, the area does provide some wetland habitat including foraging habitat for a diversity of water-associated wildlife including waterfowl, wading birds, and shorebirds. The wetlands also function to provide a certain degree of water quality protection, as they temporarily detain rainwater runoff and allow for the removal of impurities entrained in stormwater flowing over the pasture lands.

Impacts to seasonal wetlands could occur during construction activities if specific protocols are not followed. For example, heavy equipment used for proposed restoration activities could compact the soils of surrounding wetland areas if specific access routes and staging areas are not designated and delineated. The applicant has not indicated the locations of construction access routes, equipment staging areas, or stockpiling sites for spoils material (e.g., the sod layer that is proposed to be temporarily stored and reintroduced into the filled channel).

Therefore, the Commission attaches **Special Condition No. 5**. This condition requires that the applicant submit, prior to permit issuance for the review and approval of the Executive Director, a final equipment staging and stockpiling plan, which designates areas for equipment staging and the temporary stockpiling of construction and fill materials. The plan shall demonstrate, among other things, that (a) no excavated materials to be removed shall be temporarily placed or stored during grading activities outside of designated staging areas where it may be subject to entering wetlands or other coastal waters; (b) erosion control techniques shall be implemented around the temporarily stored spoil material and (c) all staging and stockpiling areas to be located in seasonal wetlands shall be limited to 20-foot-wide areas along both sides of the existing and the reconfigured channels. Additionally, **Special Condition No. 3**, discussed above, requires the applicant to submit, for the Executive Director's review and approval, an erosion and runoff control plan that is to include certain specified water quality best management practices for minimizing impacts to coastal wetlands.

(v) Fish Stranding

The potential for fish to be present in the creek is only an issue during the rainy season or shortly thereafter, as the intermittent creek channel dries out during the summer months, and cannot support fish. The applicant proposes to construct the project only when the creek is dry. **Special Condition No. 2-C and 2-D**, respectively, restrict the construction window to the dry season period of June 15 through November 15, and prohibit work within flowing stream channels.

Conclusion

The Commission finds that, as conditioned, feasible mitigation measures have been provided to minimize adverse environmental effects consistent with Section 30233 of the Coastal Act.

d. Maintenance & Enhancement of Biological Productivity & Functional Capacity

The fourth general limitation set by Section 30233 and 30231 is that any proposed dredging 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 state that marine resources shall be maintained, enhanced, and where feasible, restored. Sections 30230 and 30231 also state that the biological productivity of coastal waters appropriate to maintain optimum populations of all species of marine organisms and protect human health shall be maintained 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 any of the coastal waters in the project area and will ensure that the project construction will not adversely affect the biological productivity and functional capacity coastal waters or wetlands. Furthermore, the project's stated purpose is to restore and enhance the biological productivity of coastal wetlands and waters, and conditions of the permit will ensure that the site is monitored for achievement of these goals. The proposed restoration of Fickle Hill Creek will directly restore and enhance marine resources and biological productivity of coastal waters appropriate to maintain optimum populations of marine organisms including salmonids, waterfowl, and other water-associated wildlife. There are various sensitive fish species that have the potential to occur in the project area, including coho salmon, Chinook salmon, steelhead trout, and coastal cutthroat trout. There is approximately 1,600 feet of existing low-quality habitat in the project area for various sensitive fish species, and the project proposes to restore approximately 1,900 feet of salmonid winter rearing habitat by reconfiguring the creek channel (to restore its historic sinuosity), installing instream habitat structures, and planting 2.5 acres of riparian vegetation within the proposed restoration area. Studies have shown that small intermittent streams such as Fickle Hill Creek contribute disproportionately to juvenile coho salmon winter growth and survival because they offer backwater refugia from the high winter flows of downstream waters (in this case the higher flows or the larger Beith and Campbell Creeks). This is particularly true where main stem downstream habitats have been simplified by human activities (as is the case in this area). In addition to the slower backwater refugia, the increased riparian vegetation (which currently is absent along the existing straightened channel) improves the food supply of the coho and other salmonids as well as provides nesting, roosting,

and resting habitat for numerous types of marine shorebirds, freshwater waterfowl, and passerines. The riparian vegetation also provides cover for the salmonids, in the form of shade (necessary to keep water temperatures cool for optimum growth and survival of the fish) and protection from predators. Importantly, riparian areas serve as buffers for human health and safety. The marine riparian functions of water quality, soil stability, and the ability to absorb the impacts of storm surges and other natural, physical assaults on shorelines have direct benefits to humanity. Flooding and storm events can be exacerbated in the absence of marine riparian areas, which can serve as protective buffers. The proposed restoration and enhancements are needed to help restore habitat diversity within Humboldt Bay and assist in the recovery of listed marine salmonid species including coho salmon, Chinook salmon, steelhead, and coastal cutthroat trout.

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 Sections 30233, 30230, and 30231 of the Coastal Act.

D. Conversion of Agricultural Lands

1. Applicable Coastal Act Policies and Standards:

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 areas 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 30250.⁴

(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.

⁴ The portion of referenced Section 30250 applicable to this project type and location [sub-section (a)] requires that, "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."

(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.

Coastal Act Section 30242 states as follows:

All other lands suitable for agricultural use shall not be converted to nonagricultural uses unless (1) 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.

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.

Coastal Act Section 30250 states in pertinent part 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.

2. Consistency Analysis:

Coastal Act Sections 30241 and 30242 require the protection of prime agricultural lands⁵ and sets limits on the conversion of all agricultural lands to non-agricultural uses.

The total acreage of the City's property within the larger Baylands project area, within which the subject project area is located, is 588 acres. Currently the City leases 567 acres of the overall property to three local ranchers for seasonal cattle grazing. The City plans to continue to lease the property to the same three ranchers post project implementation. The proposed project will reduce the total amount of available grazing land by 2.5 acres (i.e., 0.4 percent or 10 "animal unit months"), so that 564.5 acres will remain in agricultural production post project implementation.

⁵ Coastal Act Section 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 following 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.

Given the fine sediment size generally associated with fluvially deposited soil materials within bays and estuaries, the low relief of the area, the relatively shallow water table, and the limited amount of tillage and organic material or other soils component amendments made to the site over the last century since their reclamation, the site's seasonally waterlogged soils and their high bulk density severely limit the types of agricultural activities that may be feasibly undertaken at the site.

a. Maintaining Maximized Production of Prime Agricultural Land

Based on information derived from the Natural Resources Conservation Service (NRCS), the majority of the soils in the project area are mapped as Occidental, 0-2 percent slopes. This soil series consists of very deep, very poorly drained, saline, silty clay loam soils on reclaimed salt marshes and tidal marshes on alluvial plains. They are identified as hydric soils and recognized as having several impediments to extensive agricultural uses. According to the NRCS, natural vegetation for this soil type is estimated to have been "perennial grasses, rushes, and sedges and salt tolerant varieties of same." As a result, the NRCS has assigned Class VII classification to the project site soils as a locale which has "severe limitations that reduce the choice of plants or require special conservation practices, or both." Thus, under the NRCS land capability classification system, the soils at the project site do not meet the first criterion for the definition of prime agricultural soils.

According to Soils of Western Humboldt County, California (McLaughlin & Harradine 1965), the project site contains mostly Bayside silty clay loam soils with 0-3% slopes. The Bayside soils have a Storie Index rating between 36 and 49. Thus, the project area does not qualify as prime agricultural land under the second prong of the Coastal Act's definition.

The third potential qualifying definition of prime agricultural land – the ability to support livestock used for the production of food and fiber with an annual carrying capacity equivalent to at least 1 animal-unit per acre as defined by the United States Department of Agriculture – similarly does not apply to the project site. Based on correspondence from, Gary Markegard, County Farm Advisor for the U.C. Cooperative Extension, the low-lying, poorly drained, saltwater intruded, and flood-prone soils along the northern reclaimed fringes of Humboldt Bay typically require three acres per animal-unit. Thus, the project site supports only 0.33 Animal Unit Months (AUMs) per acre.

Finally, with regard to the site's potential qualification as prime agricultural land based upon its potential for commercial fruit or nut crop production at specified minimal yields, the project area similarly fails to meet the criterion. Due to the maritime-influenced climate of the western Humboldt County, commercial nut production is precluded along the immediate coastal areas by the significant precipitation and limited number of warm, overcast-free days to allow for full seed maturation. In addition, due to the high bulk density of the soils underlying the project site and the relatively shallow water table, fruit and berry crops suitable for the North Coast's temperate setting are similarly restricted to areas further inland, primarily on uplifted marine terraces and within well developed river floodplain areas with improved drainage and more friable soil characteristics. As a result, fruit and nut production on an economically successful

commercial basis is not currently, nor has ever been historically pursued in open coastal environs, such as the project area.

3. Conclusion

Therefore, based upon the above discussed set of conditions at the project site, the Commission finds that the subject site does not contain prime agricultural soils or livestock and/or crop productivity potential that would otherwise qualify the subject property as “prime agricultural land.”

b. Minimizing Conflicts Between Agricultural and Urban Land Uses

As stated above, the proposed project will reduce the total amount of available grazing land (currently 567 acres) by 2.5 acres (i.e., to 564.5 acres, a reduction of 0.4 percent). The project would result in a reduction of 10 “animal unit months” (AUMs), which is the amount of forage necessary to feed a mature cow (or its equivalent) for one month. This equates to less than one animal per year, as the soils in this area require 3 acres per animal-unit. According to the applicant, the City currently leases the property to three local ranches for seasonal grazing purposes and will continue to lease the property to the same three ranchers post project implementation.

Section 30241 requires that conflicts between urban and agricultural land uses be minimized through, among other things, limiting conversions of agricultural lands. Section 30241(b) limits 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. 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. Finally, Section 30241(d) requires the development of available lands not suited for agriculture prior to the conversion of agricultural lands.

The proposed conversion of 2.5 acres of agricultural lands in the 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 site is located approximately one half mile south and west of the developed portions of Arcata, and all of the lands surrounding the project site are undeveloped and used primarily either for agricultural uses or natural resources uses. In addition, there are many areas of undeveloped land within the coastal zone around the Humboldt Bay region that are not suitable for agriculture that have yet to be developed. Moreover, although the proposed conversion will reduce the total amount of available grazing land by only a very small margin (0.4 percent), the Commission finds that the cumulative loss of agricultural lands in the project vicinity through the course of various restoration projects over the past six years is significant (e.g., see CDP Nos. 1-03-031 and 1-05-017).

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 currently grazed

portions of the site would not be consistent with the limitation on conversion of agricultural lands of Section 30241(b), (c), and (d) and would not serve to minimize conflicts between agricultural and urban land uses.

4. Conclusion

For all of the reasons stated above, the Commission finds the permanent loss of the subject 2.5 acres of agricultural land is not consistent with the provisions of Section 30241 cited above.

c. 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. In the case of the subject parcel, 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 in the future. Thus, continued agricultural use is feasible, and conversion of the land to non-agricultural use under the proposed project would not preserve prime agricultural land or concentrate development, which the Coastal Act prescribes as the basis for allowing conversion. For these reasons, the proposed conversion of agricultural lands in the project area would be inconsistent with the requirements of Coastal Act Section 30242.

E. Conflict Resolution

As noted above, the proposed restoration of intermittent riverine wetlands surrounded by 2.5 acres of riparian plantings in the project area would convert 2.5 acres of agricultural land inconsistent with the provisions of Sections 30241 and 30242. 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 that would be inconsistent with the mandates of Sections 30230 and 30231 of the Coastal Act. Section 30230 mandates that marine resources shall be maintained and enhanced, and where feasible, restored. Section 30231 mandates that the biological productivity of coastal waters appropriate to maintain optimum populations of marine organisms shall be maintained, and where feasible, restored.

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 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, enhanced, and where feasible, restored*”). 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, that 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 eight 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 stream habitat and riparian cover for the benefit of juvenile salmonid rearing habitat would convert agricultural land in a manner inconsistent with the provisions of Sections 30241 and 30242 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. Sections 30230 and 30231 mandate that marine resources shall be maintained and enhanced, and where feasible, restored. Sections 30230 and 30231 also mandate that the biological productivity of coastal waters appropriate to maintain optimum populations of marine organisms and protect human health shall be maintained and, where feasible, restored.

The proposed restoration of Fickle Hill Creek, including channel reconfiguration, installation of instream habitat structures, and planting of 2.5 acres of riparian vegetation, will directly restore and enhance marine resources and biological productivity of coastal waters appropriate to maintain optimum populations of marine organisms including salmonids, waterfowl, and other water-associated wildlife. There are various sensitive fish species that have the potential to occur in the project area. The Southern Oregon/Northern California Coast Evolutionary Significant Unit (ESU) of coho salmon and the Coastal California ESU of Chinook salmon are listed under the federal Endangered Species Act (ESA) as “threatened.” Chinook salmon (*Oncorhynchus tshawytscha*) spawn in upstream reaches of stream tributaries to Humboldt Bay (e.g., Freshwater Creek), but young fish are believed to spend several months during their first year “rearing” in the estuary. Coho salmon (*O. kisutch*) also spawn in upstream reaches, and their young also spend time in the estuary before first entering the ocean. In addition, adults of both species spend time in the estuary when returning to the basin to spawn, “holding” there while waiting for fall rains to bring river levels up enough to allow upstream migration. Another salmonid species of concern in the project vicinity is steelhead (*O. mykiss*), a seagoing trout. Steelhead have a life history similar to that of Chinook and coho, although the steelhead (which is closely related to non-seagoing rainbow trout), find appropriate habitat conditions in smaller streams, and in more upstream reaches than do the larger salmonids. The Northern California Steelhead ESU is presently listed under the federal ESA as “threatened.” An additional fish species of concern in the project area is the coastal cutthroat trout (*O. clarki clarki*), a resident salmonid in coastal streams in northern California and southern Oregon. This species is a “species of special concern” for the Department of Fish and Game, but is not listed under either the federal or state ESAs. Coastal cutthroat trout have been documented in many streams in the Humboldt Bay basin, and are presumed to be present in all the perennially flowing tributary streams to Humboldt Bay. All of the life requisites for this species are provided by the conditions in the streams in which it resides.

As discussed above, there is approximately 1,600 feet of existing low-quality habitat in the project area for various sensitive fish species, and the project proposes to restore approximately 1,900 feet of salmonid winter rearing habitat by reconfiguring the creek channel (to restore its historic sinuosity), installing instream habitat structures, and planting 2.5 acres of riparian

vegetation within the proposed restoration area. Studies have shown that small intermittent streams such as Fickle Hill Creek contribute disproportionately to juvenile coho salmon winter growth and survival because they offer backwater refugia from the high winter flows of downstream waters (in this case the higher flows or the larger Beith and Campbell Creeks). This is particularly true where main stem downstream habitats have been simplified by human activities (as is the case in this area). In addition to the slower backwater refugia, the increased riparian vegetation (which currently is absent along the existing straightened channel) improves the food supply of the coho and other salmonids as well as provides nesting, roosting, and resting habitat for numerous types of marine shorebirds, freshwater waterfowl, and passerines. The riparian vegetation also provides cover for the salmonids, in the form of shade (necessary to keep water temperatures cool for optimum growth and survival of the fish) and protection from predators. The proposed restoration and enhancements are needed to help restore habitat diversity within Humboldt Bay and assist in the recovery of listed marine salmonid species including coho salmon, Chinook salmon, steelhead, and coastal cutthroat trout.

Importantly, riparian areas serve as buffers for human health and safety. The marine riparian functions of water quality, soil stability, and the ability to absorb the impacts of storm surges and other natural, physical assaults on shorelines have direct benefits to humanity. Flooding and storm events can be exacerbated in the absence of marine riparian areas, which can serve as protective buffers.

Although the proposed project is inconsistent with the requirements of Sections 30241 and 30242 that protect productive agricultural land and limit the conversion of agricultural land, denial would preclude achieving Sections 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 were both feasible and less environmentally damaging.

a. 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 include (a) alternative sites, (b) alternative methods or configurations of project features, and (c) the "no project" alternative. These various alternatives are discussed below.

(i) Alternative Sites

Restoration of the former habitat conditions that existed on a site prior to manipulation by humans within the meaning of Sections 30230, 30231 and 30233(a) of the Coastal Act is inherently site specific. As discussed previously, implicit in the common definition of restoration is the understanding that the restoration entails returning something to a prior state. A site cannot be returned to a prior state by performing wetland enhancement or creation work at

some other site. However, as also discussed previously, restoration is also defined as reestablishing ecological processes, functions, and biotic/abiotic linkages that lead to a persistent, resilient system integrated within its landscape that may not necessarily result in a return to historic locations or conditions with the subject wetland area. Thus, restoration of ecological processes, functions, and biotic/abiotic linkages at an alternative location within the landscape of the particular wetland system involved could under certain circumstances be found to be consistent with Sections 30230, 30231 and 30233(a) of the Coastal Act. However, no such feasible alternative location other than the project site exists in this case. Nearly the entire 567-acre project parcel is agricultural land, so there is no other location on the parcel where the restoration could be carried out that would not result in a conversion of agricultural land inconsistent with Sections 30241 and 30242 of the Coastal Act. Similarly, if restoration of another site to restore a combination of stream channel and riparian habitats was considered, no feasible off-site locations that would not result in conversions of agricultural land inconsistent with Sections 30241 and 30242 have been identified. Much of the land surrounding Humboldt Bay that could support the habitat types to be restored has been diked, drained, and cleared for agricultural purposes, and thus the proposed site is one of the few locations where the proposed restoration project could occur consistent with Section 30233(a)(6) as discussed above (Finding IV-C). Therefore, implementing the project at an alternative location is not a feasible alternative that is consistent with all relevant Chapter 3 policies.

(ii) Alternative Configuration of Project Features

Feasible restoration of the site is not dependent on the exact site plan or configuration of stream channel restoration and riparian habitat 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 which Sections 30230 and 30231 mandate to occur if feasible. For example, the proposed riparian habitat could be extended further back from the creek banks to achieve a greater amount of riparian habitat restoration. This alternative configuration or layout of the project would achieve similar results, but it would not avoid conversion of agricultural lands to riparian habitat in a manner inconsistent with Sections 30241 and 30242 of the Coastal Act. Alternatively, the channel could be reconfigured as proposed but without planting 2.5 acres of riparian vegetation along the newly configured banks. The project would still result in restored stream sinuosity and instream habitat improvement (i.e., the proposed log/boulder cover structures) that would result in the conversion of some existing agricultural grazing area, and this alternative would lack the riparian cover that is so integral to salmonid restoration. As discussed above in Finding IV-C, riparian vegetation contributes important organic debris that is transformed into nutrients, which support the marine food web. Wood, leaf litter, and other organic matter from riparian areas provide nutrients for life at the base of the food web. Riparian vegetation also supports insects and other prey resources, which are eaten by juvenile salmon and other fish and wildlife. Additionally, riparian areas capture contaminants; by absorbing or filtering contaminated stormwater runoff, soils and vegetation in marine riparian areas can prevent pollutants from entering coastal waters. Moreover, healthy riparian areas support rich and diverse communities of animals that depend on

the areas for feeding, breeding, refuge, movement, and migration. Salmonids and many other fish species feed on insects from marine riparian areas. If these areas are altered or eliminated, the food supply and, thus, the abundance of nearshore fish is likely to be reduced. Importantly, riparian areas serve as buffers for human health and safety. The marine riparian functions of water quality, soil stability, and the ability to absorb the impacts of flood events and other natural, physical assaults on shorelines have direct benefits to humanity. Flooding and storm events can be exacerbated in the absence of marine riparian areas, which can serve as protective buffers.

As (1) virtually all of the larger Baylands project area except for the creeks themselves is used agriculturally, (2) the use of any portion of these areas for restoration of riparian habitat would preclude agricultural use and convert agricultural land, and (3) simply reducing the size of the restoration project by eliminating the riparian restoration component of the project would not restore the biological productivity of the stream in a manner that would maintain optimum populations of the salmon and marine shorebird, no alternative configuration of the project site would avoid conversion of agricultural land inconsistent with Sections 30241 and 30242 of the Coastal Act. Therefore, none of the alternative configurations of the restoration project are a feasible alternative that is consistent with all Chapter 3 policies.

(iii) "No Project" Alternative

The "no project" alternative would maintain the *status quo* of the site and would not restore the historic meandering configuration of Fickle Hill Creek, along with its associated riparian habitat and benefits to overwintering juvenile salmonids, as proposed. Existing conditions on the project site consist of actively used agricultural land (farmed seasonal wetlands) used for seasonal cattle grazing. Currently, there is no existing riparian vegetation along the existing straightened creek channel to buffer the creek from the impacts of cattle. Under the "no project" alternative, the land would continue to be used for seasonal agricultural grazing (as it would under the proposed project), but there would be no restored and improved habitat for marine resources, and the biological productivity of the coastal wetlands and waters appropriate to maintain optimum populations of marine organisms would thus not be restored. Existing habitats for rearing salmonids, passerines, waterfowl, and other water-associated wildlife would continue to be limited on the site. Existing cattle grazing too close to the creek would continue to erode and denude the creek banks, and there would be no riparian buffer functions of water quality, soil stability, contribution of organic debris to the marine food web, and the ability to absorb the impacts of flood events. Therefore, the Commission finds that the "no project" alternative would have significant impacts to coastal resources that would be inconsistent with Section 30230's mandate to, where feasible, restore marine resources and maintain and improve biological productivity. Therefore, the "no project" alternative is not a feasible alternative that is consistent with all relevant Chapter 3 policies.

b. 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. The Commission further finds that based on the alternatives analysis above, the proposed project as conditioned is the least

environmentally damaging feasible alternative, and therefore the project is consistent with the requirements of Section 30233(a) that the proposed fill project has no feasible less environmentally damaging alternative.

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 Sections 30241 and 30242 would avoid the conversion of 2.5 acres of agricultural grazing land. The Commission further finds that as the proposed juvenile salmonid habitat enhancements 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 would restore habitats (juvenile coho winter rearing habitat and riparian habitat) around Humboldt Bay that have been tremendously reduced over the past century consistent with Sections 30230 and 30231. The proposed restoration of Fickle Hill Creek, including channel reconfiguration, installation of instream habitat structures, and planting of 2.5 acres of riparian vegetation, will directly restore and enhance marine resources including salmonids, waterfowl, and other water-associated wildlife. As discussed above, studies have shown that small intermittent streams such as Fickle Hill Creek contribute disproportionately to juvenile coho salmon winter growth and survival because they offer backwater refugia from the high winter flows of downstream waters. This is particularly true where main stem downstream habitats have been simplified by human activities (as is the case in this area). In addition to the slower backwater refugia, the increased riparian vegetation (which currently is absent along the existing straightened channel) improves the food supply of the coho and other salmonids as well as provides nesting, roosting, and resting habitat for numerous types of shorebirds, waterfowl, and passerines. The proposed enhancements are needed to help restore habitat diversity within Humboldt Bay and assist in the recovery of listed marine salmonid species including coho salmon, Chinook salmon, steelhead, and coastal cutthroat trout. Importantly, riparian areas serve as buffers for human health and safety. The marine riparian functions of water quality, soil stability, and the ability to absorb the impacts of storm surges and other natural, physical assaults on shorelines have direct benefits to humanity. Flooding and storm events can be exacerbated in the absence of marine riparian areas, which can serve as protective buffers. The Commission finds that the restoration of 1,900 feet of intermittent riverine wetlands and 2.5 acres of riparian vegetation, which would maintain and enhance marine resources necessary to maintain the biological productivity of existing degraded wetlands, 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 2.5 acres of agricultural land, and its associated loss of less than one animal unit.

As discussed above in Finding IV-C, to ensure that the maintenance and enhancement of marine resources and of 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. 1 through 5. These conditions require that the applicant submit various final plans, including a final restoration and enhancement monitoring plan, a final erosion and runoff control plan, and final debris disposal and equipment access, staging, and stockpiling plans. Additionally, Special Condition No. 2 requires that the applicant carry out the project in accordance with various construction protocols to ensure the protection of coastal waters and wetlands, and Special Condition No. 4 requires revegetation of the site to be carried out according to specified standards and limitations. The Commission finds that without Special Condition Nos. 1 through 5, 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 applicant has not proposed any mitigation to compensate for the loss of agricultural land caused by the project.

The Commission finds that in this particular case because (1) the project proposes to re-establish prior habitat conditions and the processes that create those conditions in a converted and degraded natural wetland (agricultural land), and all of the agricultural land to be converted will be used solely for this purpose; (2) the project, as conditioned, will result in significant improvements in habitat value and diversity in a self-sustaining, persistent fashion independent of the need for repeated maintenance or manipulation to uphold the habitat function; (3) the agricultural land being converted is low quality, available only on a seasonal basis, and does not possess any of the characteristics of “prime agricultural land” as defined by Section 51201(c) of the California Government Code (see Finding IV-F above); and (4) approximately 564.5 of the 567 acres of land on the parcel currently in agricultural production will be retained for agricultural production, no agricultural mitigation is necessary to compensate for the conversion of 2.5 acres of agricultural land (and its associated loss of less than one animal unit) and for the restoration of 1,900 feet of intermittent riverine wetland habitat and 2.5 acres of riparian habitat.

F. Protection of Archaeological Resources

1. Applicable Coastal Act Policies and Standards:

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.

2. Consistency Analysis:

The diked former tidelands and surrounding areas are located within the ethnographic territory of the Wiyot Indians. Wiyot settlements existed along Humboldt Bay and along the banks of many of the streams and sloughs in this area.

The City requested a cultural resource assessment from the North Coast Information Center for the project area during the land acquisition phase for the subject property. In October 2004 the City received the report, and the City also hired Roscoe and Associates to perform an archaeological evaluation in 2003. In addition, the California Coastal Conservancy issued a letter to the State Historic Preservation Office on June 22, 2006 requesting review and clearance for the project based on past survey work completed in the area. Based on these reports, the proposed project could adversely impact archaeological resources. The City has therefore proposed maintaining a qualified cultural monitor on site during excavation activities. If any paleontological, archaeological, historical, or unique ethnic or sacred resources are found during project excavation, the City has proposed to halt activities and not recommence work until a qualified archeologist has evaluated the materials and offered recommendations for further action.

To ensure protection of any archaeological or cultural resources that may be discovered at the site during construction of the amended development, the Commission reimposes **Special Condition No. 6**. This condition requires that if an area of cultural deposits is discovered during the course of the project, all construction must cease and a qualified cultural resource specialist must analyze the significance of the find. To recommence construction following discovery of cultural deposits, the 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 amended development, 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.

G. Public Access

1. Applicable Coastal Act Policies and Standards:

Coastal Act Sections 30210, 30211, and 30212 require the provision of maximum public access opportunities, with limited exceptions. Coastal Act Section 30210 requires in applicable part that maximum public access and recreational opportunities be provided when consistent with public safety, private property rights, and natural resource protection. Section 30211 requires in applicable part that development not interfere with the public's right of access to the sea where acquired through use (i.e., potential prescriptive rights or rights of implied dedication). Section 30212 requires in applicable part that public access from the nearest public roadway to the shoreline and along the coast be provided in new development projects, except in certain instances, such as when adequate access exists nearby or when the provision of public access would be inconsistent with public safety. In applying Sections 30211 and 30212, the

Commission is limited by the need to show that any denial of a permit application based on these sections or any decision to grant a permit subject to special conditions requiring public access is necessary to avoid or offset a project's adverse impact on existing or potential public access.

2. Consistency Analysis:

The project site is located between Highway 101 and Old Arcata Road, inland from the margin of Humboldt Bay. No existing public access to a beach or shoreline is available in the project area, which currently supports and will continue to support seasonal agricultural grazing. The proposed project does not involve any changes or additional restrictions to existing public access that would interfere with or reduce the amount of area public access and recreational opportunities. In fact, public use of the project site for birdwatching from the surrounding public roadways (Highway 101 and Old Arcata Road) may increase, as the proposed enhancements are expected to benefit waterfowl and other water-associated wildlife.

Therefore, the Commission finds that the proposed project would not have an adverse effect on public access and that the project as proposed is consistent with the requirements of Coastal Act Sections 30210, 30211, and 30212.

H. Other Agency Approvals

The project requires review and authorization by the U.S. Army Corps of Engineers. Pursuant to the Federal Coastal Zone Management Act, any permit issued by a federal agency for activities that affect the coastal zone must be consistent with the coastal zone management program for that state. Under agreements between the Coastal Commission and the U.S. Army Corps of Engineers, the Corps will not issue a permit until the Coastal Commission approves a federal consistency certification for the project or approves a permit. The project also requires a CWA Section 401 Water Quality Certification from the Regional Water Quality Control Board, and a Streambed Alteration Agreement from the Department of Fish and Game. To ensure that the project ultimately approved by the other agencies is the same as the project authorized herein, the Commission attaches **Special Condition Nos. 7, 8, and 9**, which require the City 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.

I. Public Trust Lands

The project site is located in an area subject to the public trust. Therefore, to ensure that the applicant has the necessary authority to undertake all aspects of the project on these public lands, the Commission attaches **Special Condition No. 10**, which requires that the project be reviewed and where necessary approved by the State Lands Commission prior to permit issuance.

J. California Environmental Quality Act

The City of Arcata, as the lead agency, adopted a Mitigated Negative Declaration for the Arcata Baylands Enhancement/Restoration Project on June 14, 2006 (SCH No. 2006042056).

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. Vicinity Map
3. Project location in relation to nearby protected areas and restoration sites
4. Proposed project plans
5. Proposed channel reconfiguration relative to current and historic channel configurations

APPENDIX A

STANDARD CONDITIONS

1. Notice of Receipt and Acknowledgement. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable amount of time. Application for extension of the permit must be made prior to the expiration date.
3. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the Executive Director of 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.