COASTAL CONSERVANCY

Staff Recommendation
October 18, 2012

MCDANIEL SLOUGH WETLAND RESTORATION

Project No. 12-037-01
Project Manager: Su Corbaley

RECOMMENDED ACTION: Authorization to disburse up to $235,000 to the City of Arcata to restore and enhance the McDaniel Slough Wetlands bordering Humboldt Bay, Humboldt County.

LOCATION: Northern shore of Humboldt Bay, Arcata, California

PROGRAM CATEGORY: Resource Enhancement

EXHIBITS

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31251-31270 of the Public Resources Code:

"The State Coastal Conservancy hereby authorizes disbursement of an amount not to exceed two hundred thirty-five thousand dollars ($235,000) to the City of Arcata for the purposes of restoring tidal flow and fish passage to former salt marsh wetlands and enhancing associated wildlife habitat in the McDaniel Slough and Janes Creek areas bordering northern Humboldt Bay, subject to the following conditions:

1. Prior to the disbursement of any funds the Conservancy's Executive Officer shall approve in writing a work plan, budget and schedule, and any contractors to be used for the activities under this authorization.
2. The City shall provide evidence that all permits and approvals necessary for the project have been obtained.

3. Conservancy funding shall be acknowledged by erecting and maintaining a sign at the project site that has been reviewed and approved by the Executive Officer."

Staff further recommends that the Conservancy adopt the following findings:

"Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed authorization is consistent with the purposes and objectives of Chapter 6 of Division 21 of the Public Resources Code, regarding enhancement of coastal resources.
2. The proposed project is consistent with the current Project Selection Criteria and Guidelines.
3. As a responsible agency, the Conservancy has independently reviewed the McDaniel Slough Restoration Environmental Impact Report and Supplement Environmental Impact Report, prepared by the City of Arcata pursuant to the California Environmental Quality Act, and approved by the City of Arcata on December 20, 2006 and July 16, 2010, respectively, as well as public comment and the mitigation and monitoring report (together attached to the accompanying staff recommendation as Exhibit 6). The Conservancy finds that the project as conditioned avoids, reduces, or mitigates the potential significant environmental effects to a level of insignificance, and there is no substantial evidence that the project will have a significant effect on the environment, as defined in 14 California Code of Regulations Section 15382."

PROJECT SUMMARY:

Staff recommends the Conservancy authorize the disbursement of $235,000 to the City of Arcata ("the City") to restore and enhance 212 acres of wetland habitat within a larger 280-acre McDaniel Slough Wetland Restoration project area in Arcata. The project will restore tidal flow and fish passage to former salt marsh wetlands and enhance associated wildlife habitat in the McDaniel Slough and Janes Creek region on Humboldt Bay (Exhibit 1).[1] The project will remove barriers to anadromous fish, deepen historic slough channels, partially remove failing or obsolete levees, and construct levees to protect adjacent property. Public access trails will be developed on these newly constructed levees. The proposed project will occur on property owned by the City and on adjacent property owned by the California Department of Fish and Game ("CDFG") (Exhibit 2). Upon completion of the project the City and CDFG will each manage and maintain the improvements on their respective properties.

Nearly 90 percent of the original salt marsh around Humboldt Bay has been diked and drained, or filled since the late 1800s, resulting in less than 1,000 acres of salt marsh remaining. The proposed project presents a significant opportunity to restore coastal landscape /tidal wetland processes to 212 acres of former tidelands on Humboldt Bay in an area that is not constrained by man-made, hardened structures such as railroads or Highway 101.

Restoring tidal habitat to Humboldt Bay and McDaniel Slough/Janes Creek benefits salmonids, including federally-listed Coho salmon, Chinook salmon, Tidewater goby, and Steelhead-Northern

[1] For the purposes of discussion, the 212-acres to be restored and enhanced by this action is referred hereafter as "the proposed project" and the enlarged 280-acres project is referred hereafter as "the overall project" (see Exhibit 2).

California ESU. It also benefits state-listed "species of special concern" such as coastal cutthroat trout, by restoring access to historic rearing and spawning habitat. Restoration of tidal wetland habitat also benefits resident and migratory water-associated wildlife because the Bay is one of the most important stopovers along the west coast for migratory birds on the Pacific Flyway. Critical to the success of the Flyway is nutrient-rich wetlands to provide critical feeding and resting opportunities for migrating birds. Humboldt Bay is second only to San Francisco Bay in the number and diversity of migratory birds wintering in the coastal segment of California's Pacific Flyway. Humboldt Bay is recognized as a site of international importance for shorebirds, with more than 100,000 shorebirds utilizing the bay each year.[2]

The proposed Conservancy project is part of the overall project already underway by the City in McDaniel Slough, the objectives of which are to:

- Maximize restoration of a large area of tidal marsh habitat dominated by native vegetation;
- Provide unimpeded access for anadromous fish migration between Humboldt Bay and McDaniel Slough by removing tidegates and breaching the levee at the mouth of McDaniel Slough;
- Create a tidal channel system that maximizes the estuarine fisheries habitat;
- Provide connectivity of habitats using "ecolevees" and islands to create a gradation between the salt marsh/mudflat habitats and uplands;
- Provide connectivity with existing freshwater, riparian, and brackish wetland habitat at the Arcata Marsh and Wildlife Sanctuary ("AMWS") and the CDFG Mad River Slough Wildlife Area ("MRSWA");
- Alleviate rural and urban area flooding due to tide gate restrictions; and
- Provide opportunities for passive public recreation opportunities including bird watching and pedestrian access atop City-owned levee trails.

The overall project will result in the restoration and enhancement of 280 acres of former coastal wetlands to tidal brackish and salt-water habitat and enhancement of freshwater wetlands, and associated upland complexes. The project will entail dredging historic remnant slough channels; creating freshwater ponds and brackish wetlands; using material excavated from the ponds to construct levees that create a gradient to establish salt marsh vegetation; removal of sections of existing levees located along McDaniel Slough to create bird loafing/roosting islands; and enhancing grasslands and riparian areas in the north east portion of the project area and along lower Janes Creek. The newly constructed levees protect adjacent lands and serve as upland habitat within project area. As part of the overall project, the City has completed some of the project elements, such as construction of freshwater ponds and brackish marsh, and their associated upland habitats, and replacement or installation of some culverts and tide gates (Exhibit 3), but much of the tidal salt and brackish marsh restoration remains to be completed.

Conservancy funds will contribute to completing the overall project. It is anticipated that Conservancy funds will be used to construct levee(s), stabilize new shoreline levees, remove tide gates to breach the bayfront levee that will reestablish tidal flow to 212 acres and open fish passage to McDaniel Slough/Janes Creek, contour and enhance marsh plain elevations,

[2] Humboldt Bay is recognized as a Western Hemisphere Shorebird Reserve Network Site of International Importance. See http://www.whsrn.org/site-profile/humboldt-bay-complex.

revegetate the restored areas with native vegetation, perform invasive vegetation control, and establish trails on the City owned newly constructed levees. The proposed project is consistent with CDFG's Recovery Strategy for California Coho Salmon, which identifies Janes Creek as a site to establish fish populations in the Eureka Plain Hydrological Unit. Goals for that Unit include reestablishing estuarine function, maintaining and restoring a functioning flood plain and natural channel processes, and maintaining functional riparian habitat.

The project area establishes habitat connectivity to over 1,300 acres of local-, state-, and federal-protected lands adjacent to the northern edge of Humboldt Bay including the nearby U.S. Fish and Wildlife Service ("USFWS") Humboldt Bay Wildlife Refuge, Jacoby Creek Land Trust holdings, the City-owned Arcata Baylands, and AMWS, and the CDFG-owned MRSWA.

The overall project, including follow-up revegetation of marsh plains, is expected to be completed in fall/winter of 2014/15. The City's Environmental Services Division is qualified to undertake the proposed project, as evidenced by its successes managing past and ongoing restoration projects and restored lands, including: the USFWS/Conservancy-funded restoration project at nearby Arcata Baylands, the AMWS, the Arcata Community Forest, and the City's many riparian areas, wetlands and designated open spaces.

Site Description:

Historically tidal wetlands, the 280-acre project area is located on City- and CDFG-owned properties comprised of 635 acres of pasturelands created in the early 1900s when dikes were constructed separating the property from the bay . The property is located west of Arcata, along the northern shore of Humboldt Bay and is bordered by McDaniel Slough, the AMWS, the MRSWA, and the confluence of Lower Janes Creek where it drains into McDaniel Slough, in Humboldt County (Exhibit 1). The topography is generally flat though the remnants of old slough channels are visible.

Humboldt Bay is California's second largest natural bay and the largest estuary on the Pacific coast between San Francisco Bay and Coos Bay, Oregon. Humboldt Bay is a complex ecosystem valued for its rich natural and environmental resources, its recreational opportunities, ecological services, and economic benefits. Humboldt Bay supports over 100 plant species, 300 invertebrate species, 100 fish species, and 200 bird species, including those water birds that stop-over on the bay as they travel the Pacific Flyway. The intertidal zones and the riparian corridors provide crucial rearing habitat to commercially and recreationally important fish species, such as the Coho salmon, Chinook, and steelhead.

Project History: The proposed project is the final step in a multi-year year effort to assist the City to restore tidal wetlands and fish passage in the McDaniel Slough and Janes Creek region of Humboldt Bay. In 1998, the City acquired 188 acres of pastureland, known as the Hunt property, for the purposes of future restoration and enhancement of tidal flow, wetland function, and removal of fish barriers to Janes Creek. In 1999, the Conservancy funded the City's development of the McDaniel Slough Wetland Enhancement Plan, which this proposed project will implement. The plan was completed in 2003. In 2005, on behalf of the City, the Conservancy applied for and was awarded nearly $1 million in USFWS National Coastal Wetlands Conservation Grant funds for wetland restoration activities on adjacent northern Humboldt Baylands, as well as for the construction of one of the freshwater ponds in the McDaniel Slough project area. That pond was completed in 2011. In 2010, CDFG acquired an additional 24 acres of pastureland and the City acquired another approximately four acres of pastureland to add to

the overall project area for the purposes of restoring brackish and freshwater wetlands at McDaniel Slough.

The City has undertaken two environmental reviews to assess the impacts of the McDaniel Slough Restoration Project. In 2006, the City adopted an Environmental Impact Report ("EIR") for the initial restoration area of approximately 250 acres. Conservancy staff actively participated in the review and finalization of the EIR. In 2010, the City adopted a Supplemental EIR ("SEIR", Exhibit 6) that incorporated a review of the impacts from an expanded 280-acre project area including the restoration activities on the newly acquired City and CDFG properties (30 acres).

The City began restoration and enhancement activities in 2007 that are continuing today. In summer 2012, the City approached the Conservancy to seek assistance to close a funding gap to complete the McDaniel Slough/Janes Creek Restoration objectives begun so many years ago.

The Conservancy has been involved with Humboldt Bay habitat restoration for many years, including efforts at the proposed project site and on nearby wetland/tidal areas to restore functionality to former tidal wetlands. These projects are depicted in Exhibit 4 and include:

- the design and construction of the AMWS and Butcher Slough in the late 1970s and early 1980s that comprise the City's renowned wastewater treatment system;
- acquisition of the Bayview property east of Highway 101, and adjacent to the Arcata Marsh project;
- acquisition of the Alto properties south of the Bayview property along Beith and Jacoby Creeks that, together with the Bayview property comprise the Arcata Baylands project area;
- restoration of Beith Creek and Gannon Slough on the Baylands property;
- construction of waterfowl ponds on the Alto properties; and
- restoration of the Jacoby Creek estuary and tidal connectivity to Gannon Slough to provide increased fish passage.

PROJECT FINANCING

Coastal Conservancy	**$235,000**
USFWS (North American Wetlands Conservation Act)	75,000
USFWS (Kure Oil Spill Settlement)	210,795
CDFG	250,000
NRCS	52,250
NOAA	175,980
City of Arcata	100,000
Friends of Arcata Marsh	750
Redwood Region Audubon	300
Total Project Costs	**$1,100,075**

In addition to the above contributions of cash, the Friends of the Arcata Marsh is providing $1,200 of in-kind support; the Redwood Region Audubon is providing $450 of in-kind public birding tours to support the public access segment of the project; and, in addition to contributing land to the project, CDFG is providing $8,000 of in-kind technical support to the project.

A portion of the Conservancy funding is expected to come from the FY 08/09 appropriation to the Conservancy from the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84). The project is appropriate for funding under this source as these funds are available for the acquisition, enhancement, restoration, protection and development of coastal resources in accordance with the Conservancy's enabling legislation. Consistency with the Conservancy's statutory authority is discussed below in the "Consistency with Conservancy's Enabling Legislation" section. As discussed below the project is consistent with Chapter 6 of Division 21.

Projects that restore natural resources are given priority if they meet one or more of the criteria specified in Public Resources Code §75071. The proposed restoration project satisfies the following specified criteria: (a) Landscape/Habitat Linkages – the project will help sustain a complex riparian system which supports several threatened and endangered species as detailed in the project description, above; (b) Watershed Protection – the project will contribute to long-term protection of and improvement to the water and biological quality of Humboldt Bay; and (e) Non-State Matching Funds – as discussed herein, the City has secured significant non-State matching funds.

Consistent with Proposition 84 requirements, the mitigation and monitoring plan, attached as part of Exhibit 6, will provide the monitoring and reporting necessary to ensure successful implementation of the project objectives (See Public Resources Code § 75005(n)).

A portion of the Conservancy funding is also expected to come from two subaccounts under the Conservancy's Coastal Trust Fund. These funds originated from mitigation payments made by Coast Seafoods Company, as a special condition to their Coastal Development Permit E-06-003. The payments were required to mitigate adverse impacts of development under that permit to eelgrass habitat in Humboldt Bay and the corresponding reduction in available Coho salmon rearing habitat. Consistent with the Commission permit and under agreement with the Commission, the Conservancy may use these funds for the purpose of habitat enhancement for federal- and state-listed anadromous fish species. Since the project will involve the enhancement of habitat for Coho salmon and other Humboldt Bay species in an important Humboldt Bay tributary, the use of these funds is consistent with restrictions on the use of the mitigation funds.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project would be undertaken pursuant to Chapter 6 of the Conservancy's enabling legislation, Public Resource Code Sections 31251-31270, as follows:

Pursuant to § 31251, the Conservancy may award grants to local governments to enhance coastal resources that have suffered loss of natural and scenic values. This project, located within the greater Humboldt Bay ecosystem, will restore hydraulic connectivity of McDaniel Slough and Janes Creek to Humboldt Bay and the coast, and restore tidal wetlands that were degraded by the construction of dikes, enhance wildlife habitat and provide the public with limited access to an enhanced coastal scenic experience.

Pursuant to § 31252, the proposed project is consistent with the County of Humboldt's Local Coastal Program and the City of Arcata's Local Coastal Program, as described in the "Consistency with Local Coastal Program Policies" section below.

Consistent with § 31253, the amount of funding recommended for the proposed project is based on the total amount of funding available for coastal resource enhancement projects, the fiscal resources of the applicant and its project partners, the urgency of the restoration relative to other eligible coastal resource enhancement projects and other factors discussed in the Project Selection Criteria and Guidelines section, below.

CONSISTENCY WITH CONSERVANCY'S 2007 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):

Consistent with **Goal 5 Objective B** of the Conservancy's 2007 Strategic Plan, the proposed project will help "to restore and enhance 6,820 acres of coastal wetlands and intertidal areas, stream corridors…" by restoring and enhancing 212 acres of coastal intertidal wetlands.

Consistent with **Goal 5 Objective C** of the Conservancy's 2007 Strategic Plan, the proposed project will reestablish an important link in a coastal watershed and restore a significant aquatic wildlife corridor between the coast, Humboldt Bay and the Janes Creek by providing fish passage where it does not currently exist.

Consistent with **Goal 6 Objective B** of the Conservancy's 2007 Strategic Plan, the proposed project will enable significant restoration of aquatic habitat Humboldt Bay.

Consistent with **Goal 6 Objective D** of the Conservancy's 2007 Strategic Plan, the proposed project reestablishes fish rearing habitat in the slough and approximately one mile of fish habitat along Janes Creek.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines, last updated on November 10, 2011, in the following respects:

Required Criteria

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.
2. **Consistency with purposes of the funding source:** See the "Project Financing" section above.
3. **Support of the public:** Assemblyman Wesley Chesbro, Senator Noreen Evans and community groups Friends of Arcata Marsh and the Redwood Region Audubon Society support the proposed project (See Exhibit 5). Other funding agencies supporting the project inlcude the California Department of Fish and Game, the United States Fish and Wildlife Service, NOAA Fisheries and the Natural Resource Conservation Service.
4. **Location:** The proposed project is located within the coastal zone of the City of Arcata, in Humboldt County, California.

5. **Need:** Current project estimates indicate a funding gap that without Conservancy funding cannot be closed. Without these Conservancy funds the project will not proceed until other funds could be secured. The process to apply for and be awarded alternate sources of funds is lengthy and would not be completed until at least late 2013, putting completion of the project at risk. Also, one of the already-secured federal fund sources will expire in 2013; Conservancy funding is necessary to ensure those funds will not be lost.
6. **Greater-than-local interest:** The proposed project is part of the larger Humboldt Bay ecosystem that provides critical habitat for migrating avian species. The Western Hemisphere Shorebird Reserve Network identifies Humboldt Bay as a Site of International Importance for shorebirds. Humboldt Bay is second only to San Francisco Bay in the numbers and diversity of migratory water- associated birds wintering in the coastal segment of California's Pacific Flyway. Additionally, the restored stream and wetland habitats will provide needed spawning and nursery grounds for Coho salmon and other anadramous species such as Chinook and steelhead. Salmon is an anchor commercial, and recreational, industry for the state of California. Thus, efforts to restore and increase waterfowl habitat and salmonid habitat have statewide significance.
7. **Sea level rise vulnerability:** The proposed project is intended to restore tidal flow to former historic wetlands and is therefore vulnerable to changes in sea level. However, the restoration design includes eco-levees, island habitats, and salt marshes that will serve to provide zones of transition, allowing habitat to respond and adapt to rising sea level to maintain the restored hydrologic function and viability of the wetlands. For all areas of the project site with an initial starting elevation above 0 feet NGVD, which represents the majority of the site, accumulation of up to 3 feet is predicted in 50 years. (EIR I page 25). Further, the levees that delineate the restored slough area, and which separate the low lying wetland from surrounding uplands are at an elevation of +9.0 feet NGVD 29 (i.e.,+108 inches above mean sea level), which is above the anticipated sea level rise by 2100 of 55 inches. Thus, though the project area will be affected by sea level rise, it will have the ability to adapt.

Additional Criteria

8. **Urgency:** The City has secured matching funds from a variety of sources, outlined in the "Project Financing" section, above. One of those sources will expire and revert in 2013 and unless the project commences as soon as is practicable, those funds may be lost and the project halted.

10. **Leverage**: See the "Project Financing" section above.

13. **Readiness**: Restoration activities within the overall project area have been underway since 2007; the City is positioned to undertake the final stage of the project immediately.

14. **Realization of prior Conservancy goals**: See "Project History" above.

16. **Cooperation**: The project involves cooperation between the City, CDFG, the USFWS and several community groups.

17. **Vulnerability from climate change impacts other than sea level rise:** The levees surrounding the slough restoration area are at an elevation of +9.0 feet NGVD 29, which is at a level that provides protection against the 100-year extreme tide and storm surge. It is unclear how significant the impacts to the project area due to climate change will be.

However, as stated in the Vulnerability to Sea Level Rise section, above, the project design includes eco-levees and island habitats that, in addition to protecting the project site against sea level rise, will provide a band of transition topography for habitat and species to use as they retreat in response to climate change.

18. **Minimization of greenhouse gas emissions:** This project was analyzed for consistency with the Arcata Draft Greenhouse Gas Reduction Plan 2005. Use of heavy equipment during construction and transport vehicles delivering materials to the job site will result in temporary increases of greenhouse gas emissions. The City works to minimize fuel usage and emissions generated by these activities through Best Management Practices including, but not limited to using local contractors with local equipment to minimize transportation; using local materials, where possible, to reduce transportation costs. The proposed project likely increases carbon sequestration levels by reestablishing vegetation in the riparian areas located northeast of the freshwater wetlands. Converting some existing seasonal freshwater wetlands (diked agricultural fields) to salt marsh also likely increases carbon sequestration on the site over time (SEIR page 29).

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The project is consistent with the Local Coastal Programs of the County of Humboldt, and the City of Arcata.

The Humboldt Bay Area Plan (HBAP) of the Humboldt County Local Coastal Program (LCP), certified by the California Coastal Commission in 1982, defines environmentally sensitive habitats as including "wetlands and estuaries, including Humboldt Bay" (HBAP Section 3.30(B), p. 42). The HBAP cites Section 30240(a) of the California Coastal Act, stating that "environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values" (HBAP Section 3.30, p. 38). In addition, the HBAP stresses the value of salt marsh, brackish marsh, and other natural habitats for fish and wildlife in Humboldt Bay (HBAP, Section 3.30(A), pp.39-40).

The proposed project is also consistent with resource protection policies in the City of Arcata's certified LCP. Section D of the City of Arcata's LCP, regarding wetlands and riparian resources, provides for the establishment of Wetland Buffer Areas to protect sensitive wetlands and states that the City will seek funding for restoration of degraded natural resources. The project is also consistent with this section in that it preserves natural resources, protects wildlife habitat areas and enhances wetland resources.

COMPLIANCE WITH CEQA:

The City is the lead agency for this project pursuant to the California Environmental Quality Act. On November 1, 2006, the City noticed and circulated for public review the draft Environmental Impact Report (EIR) evaluating impacts from the project activities. On December 20, 2006, the City certified the final (EIR). On June 10, 2010, the City noticed and circulated the Supplemental EIR (SEIR) evaluating potential additional impacts from the expanded project activities, including additional CDFG acreage to the restoration area. On July 16, 2010, the City certified the SEIR. For purposes of this CEQA discussion, these documents are collectively referred to as "the EIR" and are included in Exhibit 6 to this staff report.

The EIR evaluated five project alternatives: the proposed project which includes partial tidal restoration with a bayside levee breach and construction of freshwater and brackish wetlands; a no action alternative; and three other alternatives including tidal restoration with bayfront levee breach, full tidal restoration with bayfront levee removal, and repairing the bayfront levee with freshwater marsh enhancement. Because the Conservancy is a responsible agency for its proposed project, the discussion below applies only to environmental impacts from the proposed project.

In its EIR, the City assessed impacts to 16 resources, and found that the project would not result in adverse impacts to Land Use, Mineral Resources, Population and Housing, Recreation, Transportation and Traffic, and Utilities and Service Systems.

The EIR identified potential significant impacts, if not mitigated, to **aesthetics, agricultural resources, air quality, biological resources, cultural and historic resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise,** and **public services**. The potential effects and the proposed mitigations that will avoid, reduce, or minimize the possible effect to a level of insignificance are discussed below. A summary of those impacts and the mitigation is provided here. For a more complete discussion of these impacts, see the EIR (Exhibit 6), and the Mitigation Monitoring and Reporting Program (Exhibit 6, page 5-7).

Aesthetics

The project would include short term and long term adverse effects and long term beneficial effects to the aesthetic and visual resource of the project site. There would be short term impacts due to construction related activities from the use of heavy equipment, exposed soils, removal of vegetation, damage to existing soils, and the construction of temporary roads. These impacts will be mitigated to a level of insignificant by implementing mitigation measures, including: tilling and de-compacting temporary roads and transportation routes to allow for rapid re-vegetation upon project completion; mulching exposed soil or planting with native plants; seeding or planting areas that do not re-vegetate naturally within one year of project completion.

The long term impacts would result from altering the character of the site from flat agricultural lands to a marsh/tidal area and open waterway with a variety of levees around and through the project area, and possible placement of bird blinds in several locations. The long term impacts would be mitigated to a level of insignificance by constructing and grading levees in a manner to blend with surrounding features, and planting native vegetation to blend with the natural environment. Additionally, the aesthetics of the bayfront levee would be improved by removing concrete slabs from the levee sides. The proposed bird blinds would be low-profile and placed in areas of heavy vegetation to obscure their presence.

Agricultural Resources / Land Conversion

The project would result in the permanent loss of 67 acres of agricultural grazing land to non-agricultural uses. The property, owned by the City is not Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Because the project site floods seasonally, grazing only occurred during the dry season and the EIR found these impacts to be less than significant. [3] The

[3] In response to comments on the loss of grazing land from the project, the City determined that the loss of this grassland would not be significant:

> October 2003 correspondence with Gary Markegard, Farm Advisor for Cooperative Extension, on a related project with similar soils indicates that these soils require 3 acres per animal unit.

project would result in the permanent loss of 22 acres of grassland on CDFG-owned MRWSA to tidal wetlands. Once the bayside levee is breached the grassland vegetation would be lost to salt tolerant vegetation and tidal marsh plain habitat. In its issuance of Coastal Development Permit No. 1-06-036, the Coastal Commission concluded that the proposed conversion of grazing lands is consistent with appropriate section of the Coastal Act.

Air Quality

The project will result in the release of particulate matter during construction activities and has the potential to generate objectionable odors during low tide episodes following levee breach. The impact from construction related particulates will be reduced to a level of insignificance by implementing mitigation measures, including: watering construction areas to control wind-blown dust; covering all trucks hauling soil, sand, and other loose materials or requiring trucks hauling these materials to maintain a freeboard of two feet; paving, watering, or treating with non-toxic soil stabilizers all access roads, parking areas, and construction staging areas; washing areas such as adjacent streets to remove any visible project soils; applying hydroseeding or non-toxic soil stabilizers to construction areas that are inactive for 10 or more days; limiting traffic speeds on unpaved roads to 15 miles per hour; installing erosion control measures to prevent silt runoff to public roadways; replanting areas where vegetation has been disturbed; and suspending outdoor dust-producing activities when high winds create plumes of dust in spite of dust control measures.

The project will necessitate extensive use of heavy equipment, thereby having short term significant impacts to air quality by greenhouse gas emissions during construction activities. The City will employ Best Management Practices to control the generation of greenhouse gases resulting from heavy equipment use. Tree planting in the riparian corridor north east of the freshwater wetlands, and conversion of freshwater seasonal wetlands to salt marsh habitat would also reduce greenhouse gas emissions through sequestration.

Biological Resources

Wetlands

The project has the potential to impact wetlands from removal of sediment deposits from wetlands and stream channels, the placement of fill to construct levees and eco-levees, and the necessary operating of heavy equipment in wetland habitat. These potential impacts to wetlands will be mitigated to a level of insignificance by: identifying the locations of habitat and species to be avoided during construction; limiting construction activities to the dry season; flagging the limits of the active construction and staging areas; labeling sensitive areas; utilizing a qualified biologist to observe construction activities as appropriate when constructing in or adjacent to sensitive habitat; and restoring all haul roads and construction staging areas to pre-project conditions.

There could be a permanent loss of 7.69 acres of agricultural wetland through fill from levee and ecolevee construction. However, the City and CDFG are providing 7.72 acres of mitigation in

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Therefore the conversion of these 67 acres will reduce livestock production in Humboldt County by 22 animals. This information and the reports listed above indicate that Humboldt County agriculture is viable and growing in terms of production and revenues and the conversion of 67 acres of seasonal grazing lands will not have a significant negative impact on the continued viability of agriculture in Humboldt County. EIR, vol. II , page 1-11.

the design of the project by removing fill from upland areas, removing structures, and converting upland areas to wetland through the tidal restoration to the site. Further, restoration of tidal function to the 21- acre project area, with the construction of the fresh water and brackish wetlands outside the project area, but part of the overall project (as described in the "Project Summary" section, above) will provide additional mitigation for wetland loss caused by levee and eco-levee construction (see Figure III of the SEIR, in Exhibit 6).

Birds

The project has the potential to impact foraging habitat for birds. These impacts will be mitigated to a level on insignificance by increasing habitat for some species, allowing construction activities during breeding and nesting season only following site surveys to ensure an absence of breeding or nesting species in the project area and following recommendations of a qualified biologist, and enhancing riparian habitat by planting willow, alder and native conifers along Janes Creek.

Mammals

The project could pose a threat to impact common mammalian species such as the California vole, Botta's pocket gopher, and vagrant shrew. Inclusion of upland islands and snags within the project design area will mitigate these impacts. Retention of some tall grass perennial uplands on City property landward of the dikes with a mosaic of new upland forest areas will further mitigate these potential impacts.

Cultural and Historic Resources

The area has been previously recorded as an archaeological site of significance; however, a survey did not locate any site indicators. Even so, the project could expose buried archaeological material, paleontological resources, or human remains. Should concentrations of archaeological materials, paleontological resources, or human remains be encountered the following steps will be adhered to:

- All ground disturbing work will be temporarily halted in that area and work would not be resumed until a qualified archaeologist has evaluated the materials and offered recommendations for further action.
- In the event that human remains are discovered, the County Coroner shall be contacted immediately and all work would cease until further instruction is received from qualified personnel.
- A representative of the Wiyot Tribe or trained archaeological monitor would be onsite to oversee excavation activities in the eastern most portion of the project.

Geology and Soils

The project presents a potential for impacts from tsunami inundation, soil instability and erosion, and geologic hazards. These potential impacts to will be mitigated to a level of insignificance by implementing on-site mitigation measures, including: placing tsunami warning and evacuation route signs on trails within the project area; using California Best Management Practices to minimize erosion during construction; preparing a geotechnical report to describe options with construction options to minimize levee instability; and constructing levees in a manner to maximize function of levees to control saltwater intrusion to fresh or brackish wetlands.

Hazards and Hazardous Materials

With regard to hazards, the project poses a potential to present a risk of exposure to humans from disease vectors such as mosquitoes during the summer months. To mitigate for this risk, bat boxes and swallow nesting boards will be mounted on snag logs and trees within the project area to encourage bat and bird populations as control against mosquitoes. The project may present a risk to public safety during construction due to the use of heavy equipment in areas where the public uses to recreate (existing levee trails, roads, bird watching overlooks). These impacts will be mitigated to a level of insignificance by implementing mitigation measures, including: the installation of informational signs informing the public of safety hazards related to heavy equipment and advising the public to 'keep out'; employing site monitors to ensure public do not enter hazardous construction zones; and limiting construction vehicle speeds to 15 miles per hour.

Hydrology and Water Quality

The project has the potential to impact the drainage of seasonal wetlands on the adjacent CDFG-owned property, and to impact surface water quality from: construction-related erosion, spills of hazardous materials from fuelling and vehicle maintenance, and increases of contaminated stormwater runoff from newly surfaced levees. These potential impacts will be mitigated to a level of insignificance by implementing mitigation measures, including: the installation of a culvert equipped with a tidegate to provide seasonal drainage to McDaniel Slough for the CDFG property; limiting construction to the dry season, thus reducing surface erosion; mulching exposed soil to control erosion; allowing bare soil surfaces to vegetate prior to bayside levee breach; restricting vehicle/equipment fuelling and maintenance activities to designated areas where spills will not reach surface waters; preparing an Erosion and Sediment Control Plan that includes storm water pollution prevention measures and Best Management Practices; and preparing a Storm Water Pollution Prevention Plan.

Noise

There will be temporary and periodic increases in noise levels associated with the use of heavy equipment during the construction period. The project has the potential to expose people offsite to objectionable sound if loud construction activities take place during sensitive night time hours, or if improperly muffled machinery were operating. These temporary impacts would be mitigated to a level of insignificance by implementing mitigation measures, including: limiting the hours that offsite noise-generating construction activities to 7 a.m. to 7 p.m. Monday through Friday, and to 9 a.m. to 7 p.m. on Saturdays; maintaining construction equipment in proper condition to prevent excess noise; and utilizing heavy equipment back-up safety beepers that is no louder than necessary.

Wildlife on or near the project site may be disturbed by construction related noise and flush from the immediate area. It is expected that wildlife would return to the project site and the surrounding area upon completion of construction.

Public Services

The project could result in a disruption to utility services or damage to transmission towers once tidal flow is restored to the project area. One electrical power tower would become inaccessible by car or truck, and another would become inaccessible to heavy equipment during high tides. Additional impacts include corrosion or grounding if the towers came into contact with salt

water. These potential impacts would be mitigated to a level of insignificance with the following design considerations and/or implementing mitigation measures including: developing a soil fill buttress surrounding the tower foundations to provide stability and a zone above flood elevations where utility crews could perform maintenance; constructing a boardwalk for crew pedestrian access to the towers; and extending the concrete base foundations to a higher elevation to protect against corrosion.

Cumulative Impacts

The City looked at cumulative impacts related to other closely related past, current and reasonably foreseeable, probable future projects to assess whether impacts from this project would be considered cumulative. The City assessed the potential for cumulative impacts to Biological Resources; Public Utilities and Public Facilities; Geology and Soils; Hydrology and Water Quality; Noise; Agricultural and Cultural Resources; and Air Quality. The City determined the project as proposed and mitigated will not cause environmental impacts that are cumulatively significant.

Conclusion

The primarily short-term impacts of the proposed project are mitigated in the design of the project. The City did not find that the long-term impacts were significant. On the whole, the proposed project would create a net benefit to many resources, as summarized below:

- Helping to restore aquatic functions by opening the tidal channel and maintaining tidal exchange between the bay and wetlands, thereby improving water quality and health of wetland habitat.
- Restoring habitat and improving existing habitat values, thereby benefiting listed species (Pt. Reyes bird's beak, Humboldt Bay owl's clover, tidewater goby, Coho salmon, Chinook salmon).
- Increasing acreage of tidal habitats with beneficial impacts on associated species.
- Improving functions and values of existing tidal habitats with beneficial impacts on associated species.
- Enhancing functions and values of seasonal wetlands with beneficial impacts on associated species.
- Restoring native uplands with beneficial impacts on associated species.
- Enhancing fresh and brackish water marsh and riparian woodland habitats.
- Preserving the site in open space and restoring a number of filled and otherwise degraded areas with native vegetation, thereby improving the overall aesthetic qualities of the site.
- Providing additional recreational opportunities in areas currently not available to public use through the design and implementation of a trail system and interpretive signage.
- Increasing channel capacity and improving the overall drainage of lower Janes Creek.

Staff has independently reviewed the EIR, the public comment, and the Mitigation Monitoring and Reporting Program and concurs with the lead agency's finding that there is no substantial evidence based upon the whole record that the project as mitigated will have a significant adverse effect on the environment. Staff therefore recommends that the Conservancy find that the project as designed avoids, reduces or mitigates the potentially significant environmental effects to a less-than-significant level, and that there is no substantial evidence based on the record as a whole that the project may have a significant effect on the environment, as defined in 14 Cal. Code Regulations Section 15382.

Upon approval staff will file a notice of determination for this project.