COASTAL CONSERVANCY

Staff Recommendation
May 19, 2011

SALT RIVER ECOSYSTEM RESTORATION PROJECT: IMPLEMENTATION

Project No.11-025-01
Project Manager: Michael Bowen

RECOMMENDED ACTION: Authorization to accept and disburse $1,000,000 from the U.S. Fish and Wildlife Service, and to disburse an additional $1,000,000 of Conservancy funds to the Humboldt County Resource Conservation District to implement the Salt River Ecosystem Restoration Project.

LOCATION: Ferndale, Humboldt County

PROGRAM CATEGORY: Resource Enhancement, Preservation of Agricultural Land

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EXHIBITS

Exhibit 1: Project Location and Site Map

Exhibit 2: Environmental Impact Report

Exhibit 3: Staff Recommendation: October 21, 2010

Exhibit 4: Project Letters

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31104 and 31251 through 31270 of the Public Resources Code:

"The State Coastal Conservancy hereby authorizes the acceptance and disbursement of one million dollars ($1,000,000) from the U.S. Fish and Wildlife Service and the disbursement of an additional one million dollars ($1,000,000) to the Humboldt County Resource Conservation District ("RCD") to implement the first two phases of the Salt River Ecosystem Restoration Project, subject to the following conditions:

1. Prior to the disbursement of funds, the RCD shall submit for review and approval by the Executive Officer of the Conservancy:
   a. A work program, including final design plans and specifications, schedule and budget for construction
   b. All contractors to be employed for the project
   c. Evidence that all necessary permits and approvals have been obtained

d. A signing plan for the project acknowledging Conservancy and U.S. Fish & Wildlife Service funding.

2. The RCD shall insure compliance with and assist the Conservancy in complying with the grant terms of the U.S. Fish and Wildlife Service.

3. In carrying out the project, the RCD shall comply with all applicable conditions and mitigation and monitoring measures for the project that are identified in the *Final Environmental Impact Report: Salt River Ecosystem Restoration Project*, *Appendix F*, and any conditions, mitigation or other measures required by any permit or approval for the project."

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 project is consistent with the current Project Selection Criteria and Guidelines.

2. The proposed authorization is consistent with the purposes and objectives of 6 of Division 21 of the Public Resources Code, regarding the enhancement of coastal resources.

3. The Conservancy has independently reviewed the *Final Environmental Impact Report: Salt River Ecosystem Restoration Project*, certified by the RCD on February 24, 2011, pursuant to the California Environmental Quality Act, public comment to the FEIR, and the Mitigation Monitoring and Reporting Program developed to mitigate potentially significant environmental effects, and finds 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."

PROJECT SUMMARY:

Staff recommends authorization to accept and disburse $1,000,000 from the U.S. Fish and Wildlife Service for the Salt River Ecosystem Restoration Project, and disburse an additional $1,000,000 to the Humboldt County Resource Conservation District ("RCD") to implement the Salt River Ecosystem Restoration Project in Ferndale, Humboldt County. Provision of funding by the Conservancy will enable the grantee to commence construction by late summer 2011. Doing so will also help the Ferndale agricultural community address longstanding problems of flooding and provide substantial enhancement to the degraded natural resources of the area.

The project is comprised of four components: wetland and upland restoration on the 440-acre Riverside Ranch property; erosion-reduction projects on private lands in the surrounding Wildcat Hills; excavation of a restored Salt River channel, also on private lands, to improve habitat and flood conveyance; and long-term adaptive maintenance, management and continued enhancement of the restored project area through an adaptive management plan. Implementation of this portion of the project is divided into two major phases.

The first phase, restoration of the Riverside Ranch property, is scheduled to commence in late summer, 2011 and continue into 2012. Phase one includes the Riverside Ranch restoration component of the project, as well as some channel excavation in the lower reaches of the Salt River corridor. Phase two, channel excavation and restoration, will commence in 2012, and

likely continue to 2013. Phase Two includes realignment of Francis Creek with the Salt River and a substantial portion of the channel excavation and restoration extending from Riverside Ranch to nearly one mile above the confluence of Williams Creek and the Salt River. Phase two will comprise roughly seven miles of channel excavation and hauling of excavated material.

The RCD is the California Environmental Quality Act (CEQA) lead agency and has served as the project lead for nearly 25 years. Its close relationship with the agricultural community has enabled it to advance a large, challenging, and at times controversial project in a fashion that has generated enthusiasm from the agricultural, environmental and regulatory communities. Now, after years of effort, design and fundraising, the RCD is nearing completion of the permitting process and is prepared to implement the project this summer.

Site Description: The project is located near Ferndale, Humboldt County (Exhibit 1). The area is extensively described in an earlier staff recommendation (Exhibit 3). The area and project, notably the flooding and ponding conditions prompting the proposed project, are also extensively analyzed in the Final Environmental Impact Report (Exhibit 2, pp. 2-1 through 2-64). Since the Board last reviewed this project, however, the flooding associated with the aggradation of the Salt River channel has increased significantly. This year's storm events have resulted in at least 800 acres of agricultural land flooding and ponding.

Project History: The Conservancy's commitment to the Salt River Ecosystem Restoration project dates back to the late 1980s. At that time the Conservancy provided its first grant to the RCD to explore alternatives for alleviating flooding in the Ferndale area. That history is described in detail under the "project history" section of the staff recommendation for the final design, October 21, 2010 (Exhibit 3 and Exhibit 2, FEIR pp. 2-1 through 2-9).

Since the award of the final design grant, the RCD and the Conservancy have worked together to complete a project EIR, advance project design and permitting work, and raise additional funds for project implementation. The RCD Board adopted the final EIR and authorized RCD staff to proceed with the project on February 24, 2010. On March 28, 2011, the State Farm Bureau filed a petition challenging the CEQA analysis; however, they voluntarily withdrew their petition after the RCD, with the assistance of Conservancy staff, provided additional analysis of the agricultural benefits of the project.

Since the Conservancy Board's October authorization for final design funding, Conservancy staff's continued and extensive fundraising on behalf of this project includes staff's application for and receipt of $1,000,000 in grant funds from the U.S. Fish and Wildlife Service's Coastal Wetlands Conservation Program. This application brought an additional $1,000,000 to the project.

PROJECT FINANCING

Coastal Conservancy*	$1,000,000
United States Fish and Wildlife Service (NCWCP)	$1,000,000
North American Wetlands Conservation Act	$370,000
National Resources Conservation Service (WRP)	$1,700,000
National Marine Fisheries Service	$1,000,000
State Water Resources Control Board	$6,500,000
Wildlife Conservation Board (pending)	$1,500,000
California Department of Fish and Game (pending)	$550,000
CalTrans (EEM)	$300,000
City of Ferndale	$30,000
Total Project Costs	**$13,950,000**

*The Conservancy funds represented in this project budget do not include previous grants from the Conservancy for related project acquisition and planning. See Exhibit 3 for additional detail.

The anticipated source of the Conservancy's own funds will be the fiscal year 2007/2008 appropriation 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 resource in accordance with the Conservancy's enabling legislation. Projects that restore natural resources are given priority if they meet one or more of the criteria specified in Pub. 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 FIER, (b) Watershed Protection – the project will contribute to long-term protection of and improvement to the water and biological quality of Salt River and the near shore area of the Pacific Ocean; and (e) Non-State Matching Funds –as discussed above, the U.S. Fish and Wildlife, the National Resource Conservation Service and other funders will provide significant non-state matching funds.

The other funds provided under this authorization are from the USFWS National Coastal Wetlands Conservation grant awarded to the Conservancy specifically for the Salt River Ecosystem Restoration project. While some funding remains to be raised for the project the grantee is actively engaged in fundraising for the project and construction of the project will proceed in phases with independent utility, such that habitat and other improvements will be beneficial even in the event of delays in implementation of the full project.

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, and remains consistent with this Chapter as described in the previous staff recommendation, Exhibit 3.

In addition, acceptance of the federal funds on behalf of the project is authorized by Public Resources Code, section 31104 which authorizes the Conservancy to accept federal grants and other financial support from public and private sources.

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

The project remains consistent with the current strategic plan goals and objectives as provided in Exhibit 3. However, the prior authorization related to planning activities, so a brief discussion of how this project comports with implementation goals and the Conservancy's climate change priorities is appropriate.

Consistent with **Goal 5 Objective B** the project will restore and enhance 808 acres of coastal habitat, including 334 acres of tidal salt and brackish marsh, 40 acres of mudflat/high marsh ecotone, 125 acres of riparian forest/scrub, 32 acres of freshwater wetland habitat, 76 acres of grassland, and more.

Consistent with **Goal 5 Objective C** the project will restore a once-significant terrestrial and aquatic wildlife corridor between inland habitat areas and the coast. Restoring 7.7 miles of the Salt River, including a significantly enhanced riparian corridor, will provide fish passage and terrestrial migration where it has not existed for decades.

Consistent with **Goal 6 Objective B** the project will significantly improve and restore aquatic and terrestrial habitat in the Eel River, California's third largest coastal watershed.

Consistent with **Goal 6 Objective D**, the project will re-open and improve conditions within 7.7 miles of coastal slough and freshwater habitat, an area that is critically important for the rearing of coastal salmon populations.

Consistent with **Goal 6 Objective F** the project will significantly improve water quality in the Eel River estuary by protecting the Ferndale Wastewater Treatment Plant from flooding, and by ensuring that releases from the plant are not concentrated and undiluted in important rearing areas of the Eel estuary.

Consistent with **Goal 6 Objective G,** the project will provide a watershed-wide approach to sediment management in the lower Eel Delta, and in the Salt River watershed particularly. Sediment management figures prominently in this complex project, and is the essence of the proposed Adaptive Management Program described in the FEIR.

Sea level rise vulnerability: Planning for this project has considered potential impacts from sea level rise. For a focused discussion of these analyses, see FEIR 3.1-8 to 3.1-11, and 8-49 to 8-51 ("Responses to California State Lands Commission Response to Comment 2"). The anticipated life of the Salt River Ecosystem Restoration Project is 50 years. Based on sea-level rise estimates presented in the California State Lands Commission's 2009 sea level rise report, sea level is predicted to rise up to 0.60 meters (2.0-feet) by the year 2060. This equates to a sea level rise rate of 1.2 centimeters per year. .. A conceptual model of the project area in terms of delta plain base levels versus sea levels can be described as episodic tectonic events of rapid land subsidence followed by both gradual and rapid sediment accumulation associated with natural deltaic building processes from the Eel River and its tributaries (tidal wetland and flood deposits, respectively). These cycles of delta building have lead to the accumulation of up to 10,000-feet

of alluvium on and below the Eel River delta plain syncline, which will continue. In geologic terms, the impacts of sea-level rise may impart gradual changes, but will not likely significantly alter this large scale land-form generating process in such a tectonically active area.

Vulnerability from climate change impacts other than sea level rise: The project will restore ecosystem processes, such as sediment transport, channel migration, channel-floodplain interaction, and seasonal and long-term beach change to the Eel River and delta. It is anticipated that this will create a self-sustaining process that can adapt to changing local climate conditions. In addition, control of invasive species is an important project component that will enhance the resiliency of the Eel River ecosystem to disturbances related to climate change, such as increased potential for invasive species and wildfire. It is possible that the frequency of some moderate flow events may increase due to climate change. The project accommodates this change because it is designed to allow better hydraulic conveyance by connecting the channel to its natural floodplain and providing room for the channel morphology to evolve over time.

Minimization of Greenhouse Gas Emissions: Construction activities could have an impact due to the emissions from construction equipment. Short-term construction related GHG emissions were calculated for the project using the OFFROAD2007 and EMFAC 2007 components of the Urban Emissions model (URBEMIS2007, version 9.2.4). These analyses reveal that the primary GHG contributions from the Salt River Restoration Project are short term and temporary, resulting from the construction of the project. Because the construction-related emissions will be temporary, and the project is expected to be a net carbon sink, no mitigation is required. However, the Mitigation and Monitoring Plan requires contractors to: 1) minimize idling time to 5 minutes for all trucks; and 2) maintain properly tuned equipment

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The proposed project will result in the implementation of a project to enhance habitat and agricultural productivity within the Coastal Zone generally, and within the jurisdiction of Humboldt County's Local Coastal Plan Eel River Area particularly.

As described in the FEIR, Exhibit 2, pp. 3.8-1 through 3.8-26, the proposed project adheres to the Humboldt LCP guidelines.

COMPLIANCE WITH CEQA:

The RCD prepared a Draft Environmental Impact Report (DEIR) for the project in association with the State Coastal Conservancy utilizing funds from the Conservancy's previous authorization. The DEIR for the proposed project was circulated by the RCD to the State Clearinghouse on April 7, 2010, posted on the project website, and made available to the public and responsible agencies. Comments were received from a variety of individuals and entities, and the DEIR was amended and reissued as a Final Environmental Impact Report (FEIR) February, 2011. The FEIR was received by the State Clearinghouse February 25, 2011.

The FEIR analyzed a range of restoration alternatives to meet the habitat restoration, drainage, water quality, and flood protection goals of the Salt River Ecosystem Restoration Project (project). The FEIR also discussed a range of other possible alternatives and components that have been rejected from further review. Alternatives reviewed include Alternative 2, which includes the Salt River channel and upland work, but not restoration of Riverside Ranch;

Alternative 3, which includes restoration of Riverside Ranch and the adjacent lower portion of the Salt River, as well as upland restoration, but not the bulk of the Salt River channel restoration, and Alternative 4, which is the no project alternative.

As required by CEQA, the Project alternatives were analyzed to determine which would be the environmentally superior alternative. Alternative 3 was analyzed and determined to provide substantial wetland enhancement benefits, but with limited channel improvements, fish passage, and flood control benefits, and with substantially reduced implementation impacts on biological resource and construction noise that would be associated with the channel excavation.

Significant and mitigable impacts were identified in analyses of: Hydrology, Water Quality and Geomorphology; Biological Resources – Terrestrial/Upland/Riparian; Biological Resources – Aquatic; Air Quality; Agricultural Resources; Cultural Resources; Transportation, and; Hazards and Hazardous Materials. A summary of those impacts and the mitigation is provided here. For a more complete discussion of these impacts, see the FEIR (Exhibit 2), especially the Mitigation Monitoring and Reporting Program (Exhibit 2, Appendix F, p. 5-1).

In summary, project objectives cannot be achieved without excavation and disturbance caused by the use of heavy equipment. This activity will have short and long term impacts on a number of resources. However, the existing environment in the Salt River has been degraded and lost by sediment filling. Equipment will disturb and reset this degraded habitat and at project completion, habitat will be improved due to restoration of channel capacity, channelization of flows and floodplain connectivity.

Hydrology and Water Quality Impacts

a. Long and Short Term Impacts due to Project Construction

The project proposes to modify the existing hydrology of the Eel River through channel modification. The project will have potentially significant but mitigable impacts to water quality associated with construction and could degrade water quality in the Eel River delta if tidal and wetland circulation does not function as planned; this also would be mitigable to a less than significant level through adaptive management. Prior to construction of the project, the RCD will develop a Storm Water Pollution Prevention Plan (SWPPP) that addresses construction related impacts to water quality. Dewatering restrictions, use of Best Management Practices, contractor training, berm monitoring, and many other measures will ensure adequate prevention of water quality and hydrology impacts due to project construction.

b. Potential Water Quality Circulation Impacts

Since the inundation of Riverside Ranch may result in areas of poor water quality circulation, the RCD will implement a water quality monitoring and maintenance plan that provides for ongoing monitoring and corrective measures as needed.

Biological Resources

a. Terrestrial/Upland and Riparian Impacts

Plants

Plant species of concern or listed plants do not occur in the Project area, on existing ranch roads or on County roads. No adverse effects to plant species of concern or listed plants will occur. However the project would all result in the conversion of grasslands and seasonal wetlands,

which provide habitat to some species, to tidal marsh, riparian forest and scrub, open water, and/or freshwater marsh. The land cover types that would be lost are common in the area, while the restored habitats are rare. Mitigation measures to address the impacts include seasonally appropriate excavation and replanting of vegetation, as well as establishment and use of a project-dedicated nursery for storage and replanting purposes.

Terrestrial Wildlife

Heavy equipment operation during the nesting season of birds could cause a disturbance or nesting failure. The nesting season for most birds in Humboldt County extends from March through July. The Project would be implemented in mid-July and later to minimize disturbance.

b. Aquatic Impacts

As with Hydrology and Water Quality, the most significant potential impacts to aquatic resources stem from decreased water quality due to construction/dredging activities. In addition construction activities are also likely to entrap fish, disturb benthic habitat and potentially create habitat beneficial to non-native species. The development of the SWPPP, pursuing construction during the dry season, planning for fish relocation, fencing of work areas, removing invasive plants and diversion of concentrated runoff from channel banks will help lower project impacts to a less than significant level. Detailed mitigation measure related to impacts to the tidewater goby, an endangered species potentially in the project area are identified in the Mitigation and Monitoring Plan (See FEIR, App. F, pp 8-9).

Air Quality Impacts

The project will necessitate extensive use of heavy equipment, thereby having significant impacts to air quality by increasing airborne dust and greenhouse gas emissions. However, the proposed marsh at Riverside ranch will also result in long-term improvements to air quality due to carbon sequestration. In order to ensure immediate-term compliance with the North Coast Air Quality Management District rules for particulates, mitigation measures for the project include numerous Best Management Practices and operational requirements.

Agricultural Impacts:

As explained extensively throughout the FEIR, the Project will provide benefits to agricultural resources and natural resources. By alleviating flooding in the project area on farm acreage that is either temporarily or permanently rendered un-farmable, the project will return to productivity a significant amount of productive acreage. By restoring productive farmland in the project area, the benefits accrue on-site, and in-kind.

The project's net agricultural benefits essentially are returning no fewer than 247 agricultural acres to production, likely more given the recent flooding of nearly 800 acres in the project area. When the impacts are further examined through the lens of increased productivity, the benefits are truly substantial. Conversion of some acreage at Riverside Ranch, a low productivity area of the Eel River Delta combined with the restoration of a functional Salt River channel, provides substantially increased benefits to agricultural productivity region.

Although approximately 273 acres of prime farmland will be taken out of production at Riverside Ranch, and 52-acres within the channel corridor, these impacts will be more than offset by increases in productivity within the project footprint and in surrounding areas. Despite the defined conversion of acreage, it is anticipated that no net loss of agricultural productivity

will occur in the project area. This trend is due to the increased conveyance of water, diminished ponding of water on pasture, and increased productivity of non-flooded pasture resulting from the project.

Cultural Resources
Due to extensive earthmoving proposed for the project, the project has the potential to disturb archeological sites. The FEIR has detailed procedures for surveying, monitoring and a clear chain of notification has been established to ensure the protection of any cultural resources inadvertently discovered during the project implementation. A qualified archaeologist will evaluate any remains, and make appropriate recommendations.

Transportation

Construction activities are likely to increase traffic along local roads. In mitigation, final construction documents will contain a Traffic Control Plan designed to minimize the impact of heavy truck use upon the local road system will be adopted prior to project commencement.

Hazards and Hazardous Materials.

Creation of enhanced wetland can cause the potential increase in mosquito production and flooding. Best Management Practices and operational constraints designed to ensure adequate water flow and mosquito control of managed marshes will be adopted and implemented.

Conclusion

The RCD's Board reviewed and approved the FEIR, adopted the FEIR and adopted CEQA findings at its February 24, 2011 Board meeting. At that time they authorized staff to proceed with the project.

On March 28, 2011, the State Farm Bureau Federation (SFBF) filed a petition for writ mandamus on the grounds that the FEIR inadequately analyzed the agricultural impacts of the project and failed to identify adequate mitigation for those impacts. The RCD engaged in settlement discussions with the SFBF, providing them additional analysis (with the assistance of the Conservancy), and the SFBF withdrew their suit April 21, 2011.

Staff has independently reviewed the FEIS/FEIR, the public comment, and the Mitigation Monitoring and Reporting Program and concurs 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.