Item 4d

CALIFORNIA OCEAN PROTECTION COUNCIL

Staff Recommendation
June 29, 2016

Connecting a Tributary in the Salt River Coastal Watershed

OPC Program Manager: Holly Wyer

RECOMMENDED ACTION: Authorization to disburse up to $372,000 to the Humboldt County Resource Conservation District to restore 2.5 miles of the Salt River channel and associated riparian floodplain, reestablish a connection between the Salt River and Williams Creek, and install 90 instream wood structures and plant a diverse palette of riparian and wetland species across 47.3 acres, and adoption of findings under the California Environmental Quality Act.

LOCATION: The Salt River channel, north and east of the City of Ferndale in Humboldt County.

STRATEGIC PLAN OBJECTIVE(S): Objective 9.1: Support an integrated approach to water management that minimizes harm to the health of downstream ocean and coastal ecosystems.

EXHIBITS

Exhibit A: Project Location and Site Map

Exhibit B: Site images

Exhibit C: Letters of support

Exhibit D: Environmental Impact Report

Exhibit E: Mitigation Monitoring Program

Exhibit F: California Environmental Quality Act Findings

Exhibit G: Draft Notice of Determination

FINDINGS AND RESOLUTION:

Staff recommends that the Ocean Protection Council (OPC) adopt the following findings:

"Based on the accompanying staff report and attached exhibits, the Ocean Protection Council hereby finds that:

1) The proposed projects are consistent with the purposes of Division 26.5 of the Public Resources Code, the Ocean Protection Act.

2) The proposed projects are consistent with the Ocean Protection Council's Proposition 1 grant guidelines (adopted September 2015).
3) The Ocean Protection Council has reviewed the Final Environmental Impact Report (EIR), certified by the HCRCD on February 24, 2011 pursuant to the California Environmental Quality Act and attached to the accompanying staff recommendation as Exhibit D, and adopts the mitigation monitoring program included as contained in Exhibit E, and adopts the findings made in conformance with California Code of Regulations, Title 14, sections 15091 and 15096, subdivision (h), as contained in Exhibit E."

Staff further recommends that the OPC adopt the following resolution pursuant to Sections 35500 *et seq.* of the Public Resources Code:

"The California Ocean Protection Council hereby approves the disbursement of up to $372,000 to the Humboldt Resource Conservation District to restore 2.5 miles of the Salt River channel and associated riparian floodplain, reestablish a connection between the Salt River and Williams Creek, and install 90 instream wood structures and plant a diverse palette of riparian and wetland species across 47.3 acres.

This authorization is subject to the condition that prior to disbursement of funds, the Humboldt County Resource Conservation District (HCRCD) shall submit for the review and approval of the Executive Director of the OPC, a detailed scope of work, work plan, schedule, budget, and the names of any contractors intended to be used to complete the project, as well as discrete deliverables that can be produced in intervals to ensure the project is on target for successful completion. Additionally, copies of all required permits must be submitted to the OPC prior to the disbursement of funds. The project will be developed under a shared understanding of process, management, and delivery."

PROJECT SUMMARY:

Williams Creek is the largest tributary to the Salt River, but it is currently disconnected from the Salt River due to sedimentation in the river systems. The Wildcat hills south of Ferndale and the Salt River are highly erosive, and changes in land use practices have led to increased erosion. Over time, the sediment eroding from the surrounding hills filled in the Salt River, and sedimentation at the confluence of the Salt River and Williams Creek is so severe that Williams Creek's water flows flood dairy pastures, rather than flowing down the historical riverbed. The flooding prevents fish passage to historic fish habitat and causes chronic flooding that impacts the agricultural landscape and damages property.

The project would restore 2.5 miles of the Salt River channel and associated riparian floodplain, which would reestablish connectivity to the Williams Creek tributary. The channel would be excavated, and would be designed to carry flows up to a 2-year flood event and efficiently transport sediment out of the river system. The excavated channel would alleviate current flooding problems caused by excess sediment in the Salt River. The project would also support channel enhancement with the installation of 90 instream wood structures and planting a diverse palette of riparian and wetland species across 47.3 acres. The instream wood structures

include structures that would prevent erosion and deposition in the Salt River during flood events, and guide logs that would shape the riverbed by creating local scour and deposition and would allow bankside vegetation the time to establish and provide bank complexity. The project would ultimately provide 7.5 miles of unobstructed fish passage from the Pacific Ocean up the Salt River to Williams Creek, which holds 7 miles of historic fish habitat.

The project includes effectiveness monitoring after construction is completed to provide pre- and post-restoration information on water quality parameters, assessments of instream salmonid habitat and fish passage, mapping of wetland and riparian vegetation species, fish presence, absence, and abundance data of salmonids, and geomorphic profiles of the restored river channel.

Site Description:
The project would occur on the Salt River channel and surrounding riparian area just north and east of the City of Ferndale, in Humboldt County. Please see Exhibit A for a map of where the project would occur. The areas included as part of the project are used for agricultural operations, primarily dairy production. Since the project area was previously a river, portions of the project site may be flooded, and would not be useable for agricultural operations.

The project would occur on private property, and the HCRCD has landowner agreements with all of the property owners of parcels overlapping the proposed project site.

Project History
Historically, the Salt River was a tidally-influenced channel connected to several tributaries, floodplains, and wetlands in the Eel River Delta. It provided a migration corridor for Coho and Chinook salmon, steelhead, and coastal cutthroat trout, and a rearing area for juveniles emigrating to the estuary. Over the course of decades, land use practices, high annual rainfall, and unconsolidated alluvial soils in the Wildcat Hills facilitated filling in the Salt River Channel, resulting in three of the five tributaries becoming disconnected from the river.

The proposed project would be part of a larger coastal watershed-scale restoration effort called the Salt River Ecosystem Restoration Project, which would, in total, restore, and enhance 7 river-miles and 330 acres of tidal estuary. The larger restoration effort includes programs to change land use practices to reduce erosion in the surrounding area and sediment loads to the Salt River. As of 2015, restoration of the estuary and 4.2 miles of river channel has been completed. The funding request from the OPC would contribute to restoring 2.5 miles of the Salt River channel and associated riparian floodplain, which will reestablish connectivity to the Williams Creek Tributary.

PROJECT FINANCING

Project financing for the portion of the project being considered for Ocean Protection Council funds is shown in the table below.

Wildlife Conservation Board	$ 1,832,326
North Coast Resource Partnership (Integrated Regional Water Management Plan)	$ 150,447
Department of Water Resources Urban Streams	$355,492
National Oceanic and Atmospheric Administration	$187,874
Ocean Protection Council	$372,250
TOTAL	$2,898,389

The larger Salt River Ecosystem Restoration Project has been vetted and funded by many agencies and other entities over the course of its construction. The table below shows a summary of funding for earlier portions of the Salt River Ecosystem Restoration Project.

California Department of Water Resources	$5,478,381
State Water Resources Control Board	$5,000,000
California Coastal Conservancy	$3,087,000
California Wildlife Conservation Board	$3,079,826
California Department of Fish and Wildlife	$2,977,438
National Oceanic and Atmospheric Administration	$642,622
California Department of Conservation	$150,000
City of Ferndale	$79,000
Humboldt County	$6,000
Bertha Russ Lytle Foundation	$5,000
TOTAL	$20,505,267

The expected source of Ocean Protection Council funds for this project is the fiscal year 2015-16 appropriation to the Natural Resources Agency pursuant to the Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Proposition 1, Water Code §79700 et. seq.). Funds appropriated to the Natural Resources Agency derive from Chapter 6 (commencing with §79730) and may be used "for multibenefit water quality, water supply, and watershed protection and restoration efforts for the watersheds of the state" (Water code §79731). Section 79732 identifies specific purposes of Chapter 6, which include removing barriers to fish passage, protecting and restoring coastal watersheds, and assisting in the recovery of endangered, threatened, or migratory species by improving instream flows and fish passage. The proposed project is an appropriate use of Proposition 1 funds because it has multibenefits and will remove barriers to fish passage, improve water quality, and restore coastal watersheds. The benefits of the project are restoration of 2.5 miles of a filled-in river channel and connecting it to a diverted tributary, and enhancement of 47 acres of riparian habitat. The new river channel will remove barriers to fish passage and will improve water quality.

The proposed project was selected through a competitive grant process under the Ocean

Protection Council's *Proposition 1 Grant Guidelines* adopted in September 2015 ("Prop 1 Guidelines") (see §79706(a)). The proposed project meets each of the evaluation criteria in the Prop 1 Guidelines as described in further below

CONSISTENCY WITH CALIFORNIA OCEAN PROTECTION ACT:
The proposed project is consistent with the Ocean Protection Act, Division 26.5 of the Public Resources Code, because it is consistent with trust-fund allowable projects, defined in Public Resources Code Section 35650(b)(2) as projects which:

1) Improve coastal water quality.
2) Improve management, conservation, and protection of coastal waters.
3) Protect, conserve, and restore coastal waters.

As stated above, this project would improve coastal water quality by reducing flooding of surrounding dairy lands. This project would improve management of coastal waters and restore coastal waters by restoring the Salt River channel and allowing freshwater flows to flow through the channel rather than flood the surrounding area. This project would, additionally, include monitoring and data collection to inform future management of the Salt River.

CONSISTENCY WITH THE OPC'S STRATEGIC PLAN:
This project implements Focal Area C: Sustainable fisheries and marine ecosystems. The project would reestablish the Salt River channel, provide fish passage to 7 miles of spawning and rearing habitat in the Williams Creek watershed, and improve flow and water quality parameters in the Salt River; thus benefiting various fish and invertebrate species, some of which, including Dungeness crab, support important commercial and recreational fisheries.

CONSISTENCY WITH THE OPC'S PROPOSITION 1 GUIDELINES:
The following are the criteria that were applied to the applications in either the Letter of Intent or full proposal stage of the evaluation.

Chapter 6 of Proposition 1 purposes: The project will achieve the following purposes of Proposition 1, Chapter 6:
1: Protect and increase the economic benefits arising from healthy watersheds, fishery resources, and instream flow.
2: Implement watershed adaptation projects in order to reduce the impacts of climate change on California's communities and ecosystems.
3: Restore river parkways throughout the state, including, but not limited to, projects pursuant to the California River Parkways Act of 2004 (Chapter 3.8 (commencing with Section 5750) of Division 5 of the Public Resources Code), in the Urban Streams Restoration Program established pursuant to Section 7048, and urban river greenways.
4: Protect and restore aquatic, wetland, and migratory bird ecosystems, including fish and wildlife corridors and the acquisition of water rights for instream flow.
6: Remove barriers to fish passage.
9: Protect and restore rural and urban watershed health to improve watershed storage capacity, forest health, protection of life and property, stormwater resource management, and

greenhouse gas reduction.
10: Protect and restore coastal watersheds, including, but not limited to, bays, marine estuaries, and nearshore ecosystems.
11: Reduce pollution or contamination of rivers, lakes, streams, or coastal waters, prevent and remediate mercury contamination from legacy mines, and protect or restore natural system functions that contribute to water supply, water quality, or flood management.
12: Assist in the recovery of endangered, threatened, or migratory species by improving watershed health, instream flows, fish passage, coastal or inland wetland restoration, or other means, such as natural community conservation plan and habitat conservation plan implementation.

OPC's Key Issue Areas for Prop 1 Funding: The project addresses OPC's key issue area of innovative marine and estuarine fisheries management, by returning freshwater flow to the lower reaches of the Salt River, which will benefit juvenile Dungeness crab. Dungeness crab supports important commercial and recreational fisheries.

Multi-benefits: The project will provide multiple benefits including improving water quality parameters in the Salt River, creating fish passage to spawning and rearing habitat in Williams Creek, restoring riparian and floodplain habitat, and alleviating chronic flooding of agricultural land and residential areas.

Ability to adapt to impacts of climate change: The project is not vulnerable to sea level rise or coastal flooding, erosion, or storm surges. However, the project is part of a larger ecosystem-wide project, which includes design site components that can support the natural geomorphic response to sea level rise. A portion of the larger project was the restoration of an estuary in 2013, which incorporated design feature that accommodated sea level rise, and completion of this project is expected to help maintain the restoration of the estuary as sea level rises.

California Water Action Plan Goals: The project will provide multiple benefits, assist disadvantaged communities, and falls under the Region's Integrated Water Management Planning Projects objectives. The project would also meet objectives such as restoring coastal watersheds, increasing flood protection, providing reliable water to wetlands, enhancing water flow to streams, and enhancing fish migration.

Removes or reduces multiple stressors to the environment: The project removes multiple stressors to the environment including chronic flooding, poor water quality, and lack of fish passage.

Utilizes green infrastructure, natural systems, or systems that mimic natural systems: The project mimics the natural system of the Salt River and would restore the historic footprint of the Salt River. This would include incorporating a main active channel to handle typical flows and floodplains to relieve high water volumes and allow suspended sediments to fall out before re-entering the river system. A riparian corridor will be planted to reestablish a continuous habitat corridor and function as a green filter for runoff during storms.

New, innovative, or proven technologies or practices: The project design incorporates proven design elements that have performed well in previous phases of the larger project. An example includes developing floodplains with relief channels. Large wood structures are designed and placed to back up high flowing water, redirecting a portion of the flow into the relief channels and over the floodplains, the wood structures also function as fish habitat.

Sustainable outcomes: To manage and ensure the effectiveness and success of the larger project into the future, an Adaptive Management Plan (AMP) has been developed, which was approved by regulatory agencies through the permitting process. The AMP provides a monitoring and maintenance program to ensure the functionality and sustainability of the constructed project. A watershed council has been created with board members from the community to manage the implementation and funding of the AMP.

Ability to begin implementing the project in timely fashion: The project has secured all project permits. Once full funding is secure, design plans will be brought to 100% and out to bid in the spring of 2017. Construction would be completed in 1 to 2 construction seasons. Subsequent effectiveness monitoring would be completed the following year. Earlier phases of the Salt River Ecosystem Restoration project have been completed in three years, and the HCRCD anticipates that the project would be complete within 3 years.

Provide mapping/data that can enhance current understanding: This project would perform multiple monitoring tasks for at least 10 years post-construction. Monitoring would consist of tracking water quality, geomorphic, vegetative, and fish and wildlife elements created, or affected, by the project. This data would not only help maintain the project, but would assist in guiding future planning restoration efforts across the region such as in the Eel River, Humboldt Bay, or other northern California coastal locations.

Demonstrates solutions that can be implemented regionally and/or statewide: The Salt River Ecosystem Restoration project has already provided information guiding regional estuary and trans-delta river projects located in the Eel River Delta and Humboldt Bay. These projects look to the Salt River Ecosystem Restoration project for guidance on design, sediment management, re-vegetation efforts, and landowner outreach. State agencies and institutions, and regional organizations continuously request input, participation, and presentations regarding successes and lessons learned associated with the project.

Demonstrates experience successfully implementing similar projects or demonstrates appropriate and necessary partnerships to complete the project. The HCRCD is the lead agency on the larger Salt River Ecosystem Restoration Project, and has successfully implemented prior phases of the project. Successful implementation includes coordinating with agency partners, ensuring compliance with state and federal contracts, and administering subcontracts for implementation.

Consistent with best available science: The design specifications for the project are consistent with the best available science to restore significant and critical hydrologic and ecological

function to the area by restoring instream and riparian habitat. Project design was done in concert with a number of regulatory agencies, and considered the lessons learned from previous phases of the project.

Demonstrates a clear and reasonable method for measuring and reporting effectiveness of project: Annual project effectiveness monitoring will help determine function and stability of the excavated Salt River channel and whether habitat goals are achieved. Monitoring will include measuring water quality parameters, performing cross-sectional surveys to determine changes in channel geomorphology, surveying percent cover and mapping wetland and riparian species success, stream habitat typing to record channel complexity, and augmenting an established Salmonid Sampling Program.

Likelihood of project to fulfill its stated objectives: The project is likely to fulfill its stated objectives. The HCRCD is an experienced applicant that has successfully completed other phases of the Salt River Ecosystem Restoration Project in the past, and is committed to monitoring to determine the success of the project.

Community support as well as support from outside local area: The project has widespread support from the community. OPC staff received a support letter for the project from the Salt River Watershed Council, which is a local 501(c)3 organization made up of local landowners and other local stakeholders. As mentioned above, this project is also of interest to other regional projects on the north coast, including efforts occurring around the Eel River and Humboldt Bay.

Bonus points:

Advances the resiliency of marine, estuarine, and diadromous fish populations and the human communities that depend upon them in the face of a changing climate. The project would benefit multiple fish populations by providing fish passage to 7 miles of spawning and rearing habitat in the Williams Creek watershed, increasing instream flow, and improving water quality parameters in the Salt River. Species that would benefit from this project include coho salmon, tidewater goby, and Dungeness crab.

Benefits disadvantaged communities: The project would be sited just north and east of the City of Ferndale, which is identified as a disadvantaged community by the Department of Water Resources; the project area is also within a disadvantaged community designation. The current habitat conditions at the Salt River are highly degraded, and land and roads surrounding the area are negatively impacted by flooding, including a county road necessary for ingress and egress. Implementation of the project would alleviate the flooding issues and benefit a disadvantaged community.

COMPLIANCE WITH CEQA:

The HCRCD prepared an EIR, State Clearinghouse No. 2007062030, for the Salt River Ecosystem Restoration Project, which is attached as Exhibit D. The HCRCD certified the Final EIR, adopted a mitigation monitoring program, and approved the project on February 24, 2011. The

Proposition 1 application under consideration today includes the Salt River Channel and Riparian Floodplain Corridor Restoration activities included in the EIR.

The Ocean Protection Council staff has reviewed the EIR and has prepared a mitigation monitoring program and CEQA Findings for the project, which are attached as Exhibits E and F. Based on the EIR, the HCRCD determined that the effects of the project will be avoided, reduced or mitigated to less than significant levels with imposition of the identified mitigation measures. OPC staff concurs with this conclusion and, accordingly, recommends that the OPC: (1) find that the project, as mitigated, avoids, reduces, or mitigates the possible effects of the project to a level of insignificance; and (2) find that there is no substantial evidence that the project, as mitigated, may have a significant effect on the environment; and (3) adopts the attached Mitigation, Monitoring, and Reporting Program (Exhibit E) and CEQA Findings (Exhibit F).

If the OPC approves the proposed authorization, staff will file a Notice of Determination (attached in draft form as Exhibit G) with the State Clearinghouse.