

COASTAL CONSERVANCY

Staff Recommendation
February 6, 2020

**WHITE SLOUGH RESTORATION,
FINAL CONSTRUCTION AND POST-CONSTRUCTION MONITORING**

Project No.13-001-02
Project Manager: Julia Elkin

RECOMMENDED ACTION: Authorization to disburse up to \$838,113 received from the California Department of Fish and Wildlife to the Humboldt County Resource Conservation District to complete construction and implement post-construction monitoring of the White Slough Restoration Project in the Humboldt Bay National Wildlife Refuge (HBNWR) on Humboldt Bay.

LOCATION: Southeast portion of Humboldt Bay shoreline, unincorporated Humboldt County

PROGRAM CATEGORY: Integrated Coastal and Marine Resources Protection; Climate Change

EXHIBITS

- Exhibit 1: [Project Maps](#)
 - Exhibit 2: [May 26, 2016 Staff Recommendation](#)
 - Exhibit 3: [CDFW Wetlands Restoration for Greenhouse Gas Reduction Grant Award Letter](#)
 - Exhibit 4: [Project Letters \(from CDFW grant application\)](#)
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RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31220 and 31113 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes disbursement of an amount not to exceed eight hundred thirty two thousand, one hundred and thirteen dollars (\$838,113) received from the California Department of Fish and Wildlife (CDFW) to the Humboldt County Resource Conservation District (HCRC) complete construction and implement post-construction monitoring of the White Slough Restoration Project in the Humboldt Bay National Wildlife Refuge on Humboldt Bay.

1. Prior to commencement of the project, the grantee shall submit for the review and written approval of the Executive Officer of the Conservancy (Executive Officer) the following:
 - a. A detailed work program, schedule, and budget.
 - b. Names and qualifications of any contractors to be retained in carrying out the project.
 - c. A plan for acknowledgment of Conservancy and California Department of Fish and Wildlife (CDFW) funding.
 - d. Evidence that all permits and approvals required to implement the project have been obtained.
2. HCRCDC shall provide the Conservancy with any information, documentation or other assistance needed by the Conservancy to comply with the requirements of the CDFW grant.”

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. Disbursement of additional funds for the implementation of the project remains consistent with Public Resources Code sections 31220 and 31113 and with the resolution, findings and discussion accompanying the Conservancy authorization of May 26, 2016, attached as Exhibit 2 to the accompanying staff recommendation.
2. The proposed authorization remains consistent with the current Conservancy Project Selection Criteria and Guidelines.”

PROJECT SUMMARY:

The Conservancy previously authorized funding of the White Slough Restoration Project on March 26, 2015 and on May 26, 2016 (Exhibit 2). Staff recommends that the Conservancy authorize disbursement of an additional \$838,113 received from the California Department of Fish and Wildlife for construction of the final phase of the White Slough project and four years of post-construction project monitoring. An additional \$14,000 received from DFW will cover Conservancy staff costs related to the project.

The White Slough Tidal Wetlands Restoration Project will restore 40 acres of coastal tidal wetlands in the White Slough Unit (WSU) of Humboldt Bay National Wildlife Refuge (HBNWR) in Humboldt County. The project area consists primarily of diked historic tidelands which have subsided to their current elevation of approximately three feet below sea level. The overall project requires importing over 250,000 cubic yards of beneficial reuse sediment to bring the site to elevations that will support native salt marsh vegetation. This restoration will transform the site from a near-monoculture of brackish wetland that faces imminent mudflat conversion into a dynamic complex of salt marsh and brackish wetlands, providing ecological and climate adaptation co-benefits.

Sediment placement at White Slough is designed and engineered to establish elevations suitable for tidal wetlands to reestablish and persist. In some locations at WSU, portions of the eroding dike have been lowered by the project construction to suitable tidal marsh elevations, with excavated material used for internal fill on low elevation locations. Other portions of the dike are being left in place to create roosting areas and high-tide refugia for birds. The dike will be fully breached in three locations to restore tidal inundation. Once site elevations have been achieved via sediment placement, a channel will be created to reconnect Chism Creek to WSU. Reconnecting Chism Creek to the WSU project area will restore sediment deposition and accretion at the site, helping the restored wetlands keep pace with sea-level rise. Following tidal reconnection, restored areas are passively revegetated by native marsh species, an approach documented to be successful on other salt marsh restoration efforts around Humboldt Bay.

Site Description: The White Slough Tidal Wetlands Restoration Project establishes a mosaic of salt and brackish wetlands across a 40-acre project area through placement of ~250,000 cy of sediment, creating 33.4 acres of estuarine emergent wetland, 2.4 acres of palustrine emergent wetland, and 4.2 acres of uplands (see Exhibit 1). The project site is fully within the Humboldt Bay National Wildlife Refuge, which is owned and managed by Department of Interior United States Fish and Wildlife Service.

Grantee Qualifications: Since 2015, Humboldt County Resource Conservation District (RCD) has managed on-the-ground implementation of the project and subcontracted all components necessary for project delivery. RCD has the proven capacity and expertise to manage Conservancy grants and has been a collaborative partner both on this project as well as throughout the Humboldt Bay region for over 20 years.

Project History: The Conservancy worked with the HBNWR and other organizations around Humboldt Bay for decades to protect and restore tidal marshes and other coastal habitats. The HBNWR contacted the Conservancy about this project in Fall 2012 and has been developing the project with staff since that time. In February 2013, the Conservancy granted \$30,000 to fund permitting, environmental analyses and planning work for the White Slough Restoration Project. Conservancy staff actively supported project design and the identification of sediment sources for the project and assisted with preparation of the IS/MND. Conservancy staff worked with the USFWS HBNWR staff to apply for the NCWC funds, which were awarded in January 2014, and the EEM funds, which were awarded and approved by the Conservancy in May 2016.

All permits have been secured for the project and project implementation is already well underway. A partial dike in August 2014 mobilized Phase 1 implementation, which was completed in summer 2015. Phase I placed ~40,000 cy of sediment to construct tidal ridges that divide the project area into four hydrologic cells, referred to as the North Basin, Middle Basin, South Basin, and Caltrans Basin. The tidal ridge elevations are approximately nine feet (NAVD 1988) and temporarily serve as haul roads for Phase II while reducing risks posed by dike failure. Upon project completion, these tidal ridges will support upland vegetation.

Phase II construction began in Summer 2016 and consists of filling the hydrologic cells to create the wetland habitat mosaic and associated tidal channels detailed in the project designs. To

date, ~120,000 cy of sediment have been placed and graded during Phase I and II to create tidal wetland topography in the North and South Basins

Summer 2020 is anticipated to be the project's final construction season, with ~59,000 cy of RWQCB-approved sediment from nearby College of the Redwoods brought to the site and graded to achieve final tidal wetland elevations across 19 acres. As project construction comes to a close in 2020, the project team will produce a detailed Project Monitoring Plan for conducting four years of post-construction monitoring of the project's biological and physical functions as well as the project's impacts on soil carbon stores.

The Conservancy has previously approved \$1,950,000 funding for project implementation, including \$950,000 from a US Fish and Wildlife Service National Coastal Wetlands Conservation grant, \$500,000 from a CNRA Environmental Enhancement and Mitigation grant, and \$500,000 of Conservancy funds.

PROJECT FINANCING

This authorization:

California Department of Fish and Wildlife (via a grant through the Conservancy)	\$852,113
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Prior authorizations:

State Coastal Conservancy	\$500,000
USFWS Deferred Maintenance Funds	\$390,000
USFWS National Coastal Wetlands Conservation Grant (via a grant through the Conservancy)	\$950,000
California Natural Resources Agency (via a grant through the Conservancy)	\$500,000

Project Total	\$3,192,113
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The proposed disbursement under this authorization will derive entirely from the grant by California Department of Fish and Wildlife (CDFW) to the Conservancy for the project. These funds are derived from CDFW's Wetland Restoration for Greenhouse Gas Reduction Program. Funding for that program is derived from the Greenhouse Gas Reduction Fund Investment Plan and Communities Revitalization Act (Health and Safety Code (HSC) Sections 39710 – 39723). The Act requires that GGRF funds be used to (1) facilitate the achievement of reductions of GHG emissions consistent with the Global Warming Solutions Act of 2006 (HSC Sections 38500 *et seq*), and (2) to the extent feasible, achieve other co-benefits. CDFW grant guidelines identify potential co-benefits associated with restoring ecological function in coastal tidal wetlands include improved habitat for fish and wildlife, sea-level rise and inland flooding adaptation, decreased air pollution, and improved water quality. (CDFW & CCI 2019 Proposal Solicitation Notice). The proposed project is consistent with the use of GGRF funding as

authorized by the legislature which require the funds be "used for wetland restoration projects that will be managed to maintain benefits for at least 50 years." (Budget Act of 2017, Chapter 249, Statutes of 2017 and Budget Act of 2018, Chapter 30, Statutes of 2018). The project is specifically designed to provide such benefits.

In addition to seeking to capture and offset greenhouse gas emissions, the Global Warming Solutions Act of 2006 sets forth certain GGRF funding priorities (HSC Section 38590.1), including addressing climate adaptation and resiliency. The proposed project will adapt White Slough to anticipated rising seas over the coming century.

Consistent with the fund source allowance for staff support, the grant from CDFW includes \$14,000 of billable support for Conservancy staff time working on the grant.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

As described in the previous staff recommendation (Exhibit 2), the proposed project is undertaken pursuant to Chapter 5.5 of Division 21 of the Public Resources Code (Section 31220) and pursuant to Section 31113. The project remains consistent with these sections of the Conservancy's enabling legislation.

CONSISTENCY WITH CONSERVANCY'S [2018-2022 STRATEGIC PLAN](#) GOAL(S) & OBJECTIVE(S):

Consistent with **Goal 6, Objective B** of the Conservancy's 2018-2022 Strategic Plan, the proposed project restores 40 acres of coastal wetland and intertidal areas within Humboldt Bay.

Consistent with **Goal 8, Objective C** of the Conservancy's 2018-2022 Strategic Plan, the proposed project implements beneficial sediment reuse as a multi-benefit strategy to increase sea-level rise resilience of both the natural wetland system and adjacent road infrastructure.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

As described in the previous staff recommendation (Exhibit 2), the proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines, last updated on October 2, 2014.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The Humboldt Bay Area Plan (HBAP) of the Humboldt County Local Coastal Program (LCP), certified by the California Coastal Commission in 1982, supports planning to protect and enhance environmentally sensitive habitats, such as coastal marshes and dunes. The HBAP cites Public Resources Code Section 30240(a), a provision of the California Coastal Act, which states 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 tremendous value of salt marsh, brackish marsh, dunes, and other natural habitats for fish and

wildlife in Humboldt Bay (HBAP, Section 3.30(A), pp.39-40). The project will result in the restoration of coastal wetlands in Humboldt Bay. Therefore, the project is entirely consistent with the policies of the HBAP of the Humboldt County LCP, as discussed above.

CONSISTENCY WITH LOCAL WATERSHED MANAGEMENT PLAN/STATE WATER QUALITY CONTROL PLAN:

As explained in the May 26, 2016 staff recommendation (Exhibit 2), the project remains consistent with the Humboldt Bay Management Plan (HBMP), the Humboldt Bay Watershed Salmon and Steelhead Conservation (HBSSC) Plan, prepared by the Humboldt Bay Watershed Advisory Committee in March 2005, the Water Quality Control Plan for the North Coast, adopted by the Regional Water Quality Control Board North Coast Region (last updated in 2007), and HBNWR's Comprehensive Conservation Plan (CCP), adopted by USFWS in 2009.

CEQA COMPLIANCE:

On March 26, 2015, the Conservancy adopted the "Humboldt Bay National Wildlife Refuge White Slough Tidelands Restoration Project Final Initial Study and Mitigated Negative Declaration" (Final IS/MND) and authorized funding for the project. The Conservancy filed a Notice of Determination with the State Clearinghouse on March 27, 2015. Even with the increased monitoring, the project remains substantially unchanged from its description in the Final IS/MND, and no new environmental information or change in circumstances require a re-evaluation of the potential environmental effects of the project. (14 Cal Code. Regs. Section 15162(b)). Accordingly, the proposed authorization remains consistent with the CEQA findings adopted by the Conservancy in connection with the March 26, 2015 authorization.