

COASTAL CONSERVANCY

Staff Recommendation
December 6, 2018

MAD RIVER ESTUARY AND EUREKA SLOUGH INVASIVE SPARTINA ERADICATION

Project No. 08-010-05
Project Manager: Joel Gerwein

RECOMMENDED ACTION: Authorization to disburse up to \$150,000 in grant funds from the U.S. Fish and Wildlife Service to the Redwood Community Action Agency to remove invasive dense-flowered cordgrass (*Spartina densiflora*) in the Mad River Estuary and the Eureka Slough Unit of the Humboldt Bay National Wildlife Refuge (Exhibit 1) and adoption of a finding that the project is within the scope of the previously certified “Final Programmatic Environmental Impact Report for the Humboldt Bay Regional *Spartina* Eradication Plan” (FEIR) and the FEIR adequately describes and evaluates the project for purposes of CEQA.

LOCATION: Mad River Estuary and Eureka Slough Unit of the Humboldt Bay National Wildlife Refuge, Unincorporated Humboldt County

PROGRAM CATEGORY: Integrated Coastal & Marine Resources Protection

EXHIBITS

- Exhibit 1: [Project Location](#)
- Exhibit 2: [April 18, 2013 Conservancy Staff Recommendation: Adoption and Certification of the Final Programmatic Environmental Impact Report for the Humboldt Bay Regional *Spartina* Eradication Plan](#)
- Exhibit 3: [Site Photographs](#)
- Exhibit 4: [Project Letters](#)
- Exhibit 5: [CEQA Checklists for Mad River Estuary and Eureka Slough Unit *Spartina* Removal and Marsh Restoration](#)

RESOLUTION AND FINDINGS:

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

“The State Coastal Conservancy hereby authorizes the disbursement of an amount not to exceed one hundred fifty thousand dollars (\$150,000) in grant funds from the US Fish and Wildlife Service (“USFWS”) to the Redwood Community Action Agency (“RCAA”) to remove invasive

dense-flowered cordgrass (*Spartina densiflora*) and facilitate the restoration of native marsh and riparian vegetation in the Mad River Estuary and in the Eureka Slough Unit of the Humboldt Bay National Wildlife Refuge in unincorporated Humboldt County. This authorization is subject to the following conditions:

1. Prior to the disbursement of funds the grantee shall submit for the review and approval of the Executive Officer of the Conservancy (Executive Officer):
 - a. A work plan, schedule, budget, and the names of any contractors or subcontractors to be retained for implementation of the project;
 - b. A plan for acknowledgement of Conservancy and USFWS funding; and
 - c. Evidence that all permits and approvals required to implement the project have been obtained.
 - d. Evidence that the grantee has entered into agreements sufficient to enable the grantee to access the project site and to carry out the project.
2. In implementing the project, RCAA shall ensure compliance with all applicable mitigation measures and monitoring and reporting requirements for the project that are identified in the “Final Programmatic Environmental Impact Report for the Humboldt Bay Regional *Spartina* Eradication Plan” (FEIR) and in the Mitigation Monitoring and Reporting Program certified and adopted by the Conservancy at its April 18, 2013 public meeting of its Board of Directors (Exhibit 2), and in any permits, approvals or additional environmental documentation required 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 authorization is consistent with Chapter 5.5 of Division 21 of the Public Resources Code, regarding integrated coastal and marine resource protection projects.
2. The proposed project is consistent with the current Conservancy Project Selection Criteria and Guidelines.
3. The Redwood Community Action Agency is a nonprofit organization existing under section 501(c)(3) of the U.S. Internal Revenue Code, and whose purposes are consistent with Division 21 of the Public Resources Code.
4. The Conservancy has identified the environmental impacts associated with the project and the mitigation measures needed to reduce or avoid those effects, all of which were fully identified and considered in the programmatic FEIR. There are no new additional or more severe environmental impacts associated with this component of the project beyond those previously considered by the FEIR and there is no need for new or additional mitigation measures to reduce or to avoid the impacts of the project.

PROJECT SUMMARY:

Staff recommends that the Conservancy authorize the disbursement of up to \$150,000 in U.S. Fish and Wildlife Service (USFWS) grant funds to Redwood Community Action Agency (RCAA) to remove invasive dense-flowered cordgrass (*Spartina densiflora*, “Spartina”) from the Mad River Estuary (MRE) and the Eureka Slough Unit (ESU) of the Humboldt Bay National Wildlife Refuge (HBNWR). *Spartina* is only present in approximately 7 acres of the MRE, and the project will remove *Spartina* from all of these infested acres. Significant *Spartina* removal work has already been accomplished in the ESU through the Humboldt Bay Regional Invasive *Spartina* Eradication and Native Salt Marsh Restoration Project, and this project will build on that work by removing *Spartina* on an additional 15 acres. The project will also conduct follow up treatments in both the MRE and ESU to prevent resprouts or seedlings from reinfesting treated areas. This work will be a significant step towards completely eradicating invasive *Spartina* from the MRE and the ESU.

Spartina in the MRE project area is located on public trust lands. The MRE project area is managed by the Humboldt Harbor Recreation and Conservation District (the “Harbor District”), and the Harbor District currently holds a lease, granted by the State Lands Commission, for the purpose of removing, controlling, and monitoring non-native vegetation and restoring native vegetation to the salt marshes in the project area. Landowners adjacent to *Spartina* marshes in the MRE include the County of Humboldt (“County”), the McKinleyville Community Services District (“MCSD”), and two private landowners. The Harbor District, the County and MCSD are project partners and have agreed to assist with project coordination and allow access across their properties. The private landowners have been informed about the project. No access is necessary across the private landowners’ property. All MRE project area marshes can be accessed through MCSD or County land.

The ESU is owned by the USFWS as part of the HBNWR. The HBNWR has prioritized *Spartina* removal in its tidal marshes and USFWS is a partner in the project.

The project is part of a regional effort whose long-term goal is to eradicate invasive *Spartina* from Humboldt Bay, the MRE, and the Eel River Estuary, and allow native marsh species to recolonize in its place. The project will reduce the impacts and threat of *Spartina* on tidal marsh ecosystem functions. *Spartina* is a noxious weed that degrades estuarine habitat by excluding native salt marsh plants, altering the benthic macroinvertebrate community, reducing net primary productivity, and potentially transforming mudflat areas to salt marsh. It threatens to undermine marsh restoration projects. The Humboldt Bay region’s *Spartina* population is a source of propagules that could colonize marshes up and down the coast.

It is anticipated that grant funds will be sufficient to conduct initial and follow up *Spartina* removal activities on all *Spartina*-infested acreage in the MRE and 15 acres in the ESU. If funds remain after treatment of this area is complete, they will be used to increase the acreage of *Spartina* treatment in the ESU.

Diking and filling have resulted in the loss of approximately 90% of the Humboldt Bay region’s historic salt marshes. The few remaining marshes have been further degraded by agricultural and urban runoff, industrial development, and invasive species infestations. Restoration and enhancement of remaining marshes is therefore critical to not only sustain populations of more common plants and wildlife, but also recover federally listed species, such as Southern

Oregon/Northern California Coast Coho salmon, California Coastal Chinook salmon, Northern California steelhead, and tidewater goby. Removal of invasive *Spartina* from tidal marshes will restore valuable biodiversity and ecosystem processes and reduce a major threat to the marshes in the Humboldt Bay region and other West Coast estuaries. *Spartina densiflora* is designated a red-alert species with High ecological impact rating in the California Invasive Plant Inventory, a priority management species for the Humboldt Weed Management Agency, and a Noxious Weed by the California Department of Food and Agriculture. A report on the state of California's wetlands ranked *Spartina* as the top threat to the biological value of California's North Coast wetlands, and specifically Humboldt Bay¹. Invasive *Spartina* has been recognized as a major threat to estuarine biodiversity by the West Coast Governor's Alliance (WCGA) on Ocean Health, and the 2010 WCGA Action Plan prioritizes the coastwide eradication of invasive *Spartina*. Eradication of the MRE and ESU populations is a key action to meet this goal.

Spartina removal work will be conducted by RCAA staff, contracted labor, and volunteers. *Spartina* control methods involve an initial subsurface mowing treatment applied by handheld brushcutters, or rototilling using an amphibious tracked vehicle (Exhibit 3). Typically, one to two follow-up resprout treatments with brushcutters are needed to fully kill all established plants. Flaming or brushcutting to remove seedlings may also be necessary. Planting of native species is rarely necessary, as native marsh species recolonize treated areas independently. These methods have been tested and refined in Humboldt Bay over the last ten years.

Site Description: The Mad River estuary is located just north of the City of Arcata. The Mad River was designated as a Critical Coastal Area in 1995, as a waterbody impaired by excessive sediment, temperature, and turbidity that flows into an estuary. The Mad River estuary is smaller than the Humboldt Bay and Eel River estuaries and contains a smaller acreage of tidal marsh. The National Wetlands Inventory mapped 65.5 acres of tidal marsh in the MRE. It is an extremely dynamic ecosystem, as evidenced by significant migration of the mouth of the Mad River up and down the coast since the 1940s. Between 1942 and 1992, the Mad River mouth moved from a location approximately across from present-day School Road in McKinleyville to just below the Clam Beach Vista Point across from the McKinleyville airport. In 1997, the Mad River opened a new mouth two miles south of the former mouth. The abandoned channel became a lagoon/estuary with a mixture of freshwater and brackish marshes, fed by Widow White Creek and subject to high tides entering the new mouth of the river. The estuary supports populations of Coho and Chinook salmon, steelhead, and western snowy plover. *Spartina* is present in this estuary, in marshes and flood channels, and in and adjacent to riparian scrub habitat (Exhibit 3).

The Eureka Slough Unit is part of the HBNWR. The ESU consists of ~86 acres of undiked salt marsh and mudflat in southeastern Arcata Bay. The ESU preserves the relatively small remnant of the slough's historic salt marsh occurring west of Highway 101. The marsh is dominated almost entirely by invasive *Spartina*. *Spartina* has been removed from ~40 acres of tidal marsh in the ESU.

Grantee Qualifications: RCAA, a California nonprofit corporation, has been coordinating and implementing *Spartina* and other invasive plant removal and native habitat restoration efforts in

¹ Sutula M, Collins JN, Wiskind A, et al. 2008. Status of Perennial Estuarine Wetlands in the State of California. Final Report to the Surface Water Ambient Monitoring Program.

the Humboldt Bay region for many years, and is highly qualified to carry out the project. RCAA has implemented Spartina removal successfully on the HBNWR, Indian Island, Arcata Marsh, and PG&E lands adjacent to the Humboldt Bay Power Plant. RCAA has successfully administered multiple state grants in the past and is currently administering a California Department of Fish and Wildlife (CDFW) grant for Spartina removal in Humboldt Bay.

Project History: The Conservancy has been working with collaborators in the Humboldt Bay region on Spartina removal for 15 years. In April 2003, the Conservancy provided funding to USFWS to undertake a pilot study of manual techniques for eradicating cordgrass in Humboldt Bay. In June 2006, the Conservancy provided \$50,000 to apply the manual techniques tested in the 2003-2005 pilot project to a larger area (approximately 50 acres) of salt marsh within HBNWR. This project was completed in September 2008. In 2008, the Conservancy provided \$60,000 in Proposition 84 bond funds and an additional \$150,000 in federal Coastal Impact Assistance Program funds to prepare a regional eradication plan. In 2010, the HBNWR received a \$1,000,000 grant to conduct research and technical studies and to eradicate *Spartina* from the Refuge, a project that is nearly complete. In 2011, the Conservancy funded the preparation of the PEIR with \$20,000 in Proposition 84 bond funds and an additional \$80,000 in federal funds awarded to the Conservancy by the Pacific States Marine Fisheries Commission. In 2013, the Conservancy certified the FEIR for the project and provided \$500,000 in Proposition 84 bond funds for Spartina removal efforts. In 2013-2015, the Conservancy assisted in securing an additional \$470,000 in outside grant funding to local partners for Spartina removal, including a USFWS Small NAWCA grant for \$75,000 Spartina removal in the HBNWR. In 2014, the Conservancy augmented its \$500,000 grant with an additional \$72,500 in funds granted by the USFWS for Spartina removal. In 2016, the Wiyot Tribe received \$250,000 in Bureau of Indian Affairs funding for Spartina removal on Indian Island. In 2017, RCAA received \$450,000 in CDFW Proposition 1 grant funding for Spartina removal in Humboldt Bay.

Progress in Spartina removal has been slow but steady over the last five years. Approximately 350 acres of tidal marsh in Humboldt Bay has been enhanced through Spartina removal, primarily on the HBNWR, but also in tidal marshes owned by the City of Arcata, the Wiyot Tribe, and PG&E.

Public outreach has been ongoing through the planning and eradication project. The FWS, Conservancy, and other partners including the California Ocean Protection Council, the City of Eureka, the Friends of the Dunes, and Humboldt State University, co-sponsored *Spartina* Summits in 2008, 2010, and 2011 to share information about invasive *Spartina* and its control and to discuss management options for *Spartina* in Humboldt County. In addition, volunteer *Spartina* removal and native marsh revegetation days have been conducted by USFWS, RCAA, and the City of Arcata. The Conservancy worked with RCAA, the County and MCSD to prepare the grant proposal to the USFWS Small NAWCA program for the MRE portion of this project and submitted it in November 2017. USFWS notified the Conservancy that the Small NAWCA proposal had been selected for funding in March 2018. The Conservancy worked with RCAA, the HBNWR, and other partners to prepare the grant proposal to the USFWS Standard NAWCA program for the ESU portion of the project and submitted it in July 2018. The Standard NAWCA proposal also provides funding for the Eel River Estuary Preserve and Centerville Slough Enhancement Project. USFWS notified the Conservancy that the Standard NAWCA proposal had been selected for funding in September 2018.

PROJECT FINANCING

USFWS	\$150,000
Project Total	\$150,000

Funding for this project will be provided from grants to the Conservancy by USFWS through its two North American Wetlands Conservation Act (NAWCA) Grant Programs: the Small NAWCA Grant Program and the Standard NAWCA Grant Program, specifically for this project work. Matching funds for these grants consist primarily of funds provided by the California Natural Resources Agency to the Humboldt Bay Harbor Recreation and Conservation District for prior Spartina removal, which were expended in 2016-2017.²

CONSISTENCY WITH CONSERVANCY’S ENABLING LEGISLATION:

This project would be undertaken pursuant to Division 21, Chapter 5.5 (Integrated Coastal and Marine Resources Protection) of the Conservancy’s enabling legislation (California Public Resources Code Sections 31220 and 31104 as described below.

Section 31220(a) of the Public Resources Code authorizes the Conservancy to undertake coastal watershed projects that meet one or more criteria detailed in subsections 1 through 10 of Section 31220(b). Consistent with Section 31220(b), the proposed project will achieve the following objectives: protect or restore fish and wildlife habitat within coastal and marine waters and coastal watersheds (subsection 2); reduce threats to coastal and marine fish and wildlife (subsection 3); and protect and restore wetlands and other sensitive watershed lands (subsection 6). Consistent with this section, the proposed authorization authorizes the use of funds to remove Spartina, thereby restoring tidal marshes in the MRE and ESU. Removing these invasive plants will also improve habitat conditions for fish and wildlife that utilize the region’s marshes, as discussed in the Project Summary Section above.

Public Resources Code Section 31220(a) requires the Conservancy to consult with the State Water Resources Control Board (SWRCB) in the development of a project to ensure consistency with Chapter 3 of Division 20.4 of the Public Resources Code. In keeping with this requirement, the Conservancy consulted with the SWRCB in developing the Humboldt Bay Regional Spartina Eradication Plan to ensure the consistency of projects carried out under the Plan with the referenced section of the Public Resources Code.

Conservancy projects funded pursuant to section 31220(c) of the Public Resources Code must “include a monitoring and evaluation component” and be consistent with applicable Integrated Regional Water Management Programs, local watershed management plans, and water quality control plans adopted by the state or regional water quality control boards. The project will

² The North American Wetlands Conservation Act Grant programs allows the use of matching funds that have been expended in the two years prior to proposal submission.

include effectiveness monitoring and will use data from that monitoring in connection with adaptive management principles to measure the success of the project and optimize control efforts on an ongoing basis. The consistency of this project with local and regional watershed and water quality plans is discussed in the “Consistency with Local Watershed Management Plan and Regional Water Quality Control Plan” section below.

Under Section 31104 of the Public Resources Code, the conservancy may apply for and accept federal grants. The USFWS NAWCA is a federal grant program.

**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 will enhance 22 acres of coastal wetlands.

**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 October 2, 2014, 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. **Promotion and implementation of state plans and policies:** The proposed project promotes or implements the following state plans or policies:
 - Action 4 identified in the 2016 *California Water Action Plan (CWAP)*, prepared by the State Natural Resources Agency, State Department of Food and Agriculture, and State Environmental Protection Agency, which calls for the protection and restoration of important ecosystems. The Project will implement this action by restoring tidal marsh in an estuary that provides valuable fish and wildlife habitat.
 - A Management Measure recommended by the *California Nonpoint Source Program Implementation Plan 2014-2020* prepared by the State Water Resources Control Board in 2015: MM6B- Restoration of Wetlands and Riparian Areas.
 - The following objectives of the *California Wildlife Action Plan*, prepared by the California Department of Fish and Wildlife in 2015:
 - Objective CM.2: Reduce the spread and harm caused by invasive species.
 - Objective R.2: Restore high-value areas impacted by invasive species.

- The following tasks identified in the *Recovery Strategy for California Coho Salmon*, prepared by CDFW in 2004:
 - Eureka Plain Task 2: Work with agencies and landowners, to re-establish estuarine function.
 - Eureka Plain Task 10: In cooperation with willing landowners, restore and maintain historical tidal areas, backwater channels and salt marsh.
 - Rangewide-Estuarines Task 2: Restore estuarine and associated wetland ecosystems.
 - *The California Wetlands Conservation Policy* (1993), adopted by the California Natural Resources Agency through Executive Order W-59-93: “Ensure no overall net loss and achieve a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values in California...”
 - Invasive *Spartina* has been recognized as a major threat to estuarine biodiversity by the West Coast Governor’s Alliance (WCGA) on Ocean Health, and the *2010 WCGA Executive Overview of Final Work Plans* prioritizes the coastwide eradication of invasive *Spartina* by 2018. This project will further that goal.
4. **Support of the public:** The project enjoys broad public support (Exhibit 4).
 5. **Location:** The proposed project would be located within the coastal zone of Humboldt county.
 6. **Need:** USFWS grant funds were awarded to the Conservancy for this project, and the project will not be implemented unless the Conservancy authorizes their disbursement to its project partner.
 7. **Greater-than-local interest:** The proposed project will lead to the restoration of plant and wildlife habitat of regional and statewide importance for resident and migratory species. In addition, the project will facilitate the protection of marshes in Oregon and Washington from colonization by invasive *Spartina* seeds dispersing from the Humboldt Bay region.
 8. **Sea level rise vulnerability:** Sea level rise is likely to result in the landward migration of the marshes where invasives removal will take place. Invasives control in existing marshes is nonetheless important. If these species are not controlled now, disturbances associated with sea level rise and extreme storm events will likely favor species with the ability to colonize disturbed areas rapidly, leading tidal marshes at inland locations or higher elevations to be even more dominated by invasives than current habitats. In addition, biodiversity is thought to be an important factor in maintaining the resilience of natural communities to climate change. Controlling invasives will enhance the native biodiversity of tidal marshes and, consequently, their resilience to climate change.

Additional Criteria

9. **Urgency:** The proposed project is urgent due to the need to prevent further spread of invasives within and outside of the Humboldt Bay region, and to restore habitat for fish and wildlife populations that are already stressed by urban, agricultural, and other impacts.
10. **Leverage:** See the “Project Financing” section above.
11. **Readiness:** RCAA is already engaged in marsh restoration through invasives removal around Humboldt Bay using other funds and can move forward expeditiously with this Project when funding is in place.
12. **Realization of prior Conservancy goals:** “See “Project History” above.”
13. **Return to Conservancy:** See the “Project Financing” section above.
14. **Cooperation:** The County and MCSD will contribute staff time towards project coordination. The Conservancy has consulted with interested Tribes and has received expressions of support, as well as input on appropriate protocols for cultural resource protection.
15. **Vulnerability from climate change impacts other than sea level rise:** Climate change is likely to result in an increase in invasive species. This project contributes to regional efforts that include a monitoring component to allow for early detection and rapid response to new invasions of tidal marshes in the Humboldt Bay region.
16. **Minimization of greenhouse gas emissions:** The project includes measures to minimize erosion due to *Spartina* removal, which will minimize the loss of carbon sequestered in Humboldt Bay tidal marshes. In addition, restoration of native marsh communities will increase the salt marshes’ net primary productivity, resulting in increased carbon sequestration.

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, defines environmentally sensitive habitats as including “wetlands and estuaries, including Humboldt Bay and the mouth of the Mad River” (HBAP Section 3.30(B), p. 43). 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. 39). In addition, the HBAP stresses the tremendous value of salt marsh, brackish marsh, and other natural habitats for fish and wildlife (HBAP, Section 3.30(A), pp.40-41). The project will result in the restoration of coastal wetlands at the mouth of the Mad River. 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:**

The proposed project is consistent with the Phase III North Coast Integrated Regional Water Management Plan (NCIRWMP), completed in August 2014. The NCIRWMP notes that many North Coast habitats have been “impacted...by invasion of non-native plant species” (NCIRWMP, p.102). The NCIRWMP notes that a significant disruption of ecological processes has resulted from this invasion, as well as from a number of other impacts, and that this

disruption is exemplified by the decline in salmon populations in the region (NCIRWMP, pg.87). The project is consistent with the NCIRWMP's Goal 3, Objectives #5 and 6:

Objective 5. Conserve, enhance, and restore watersheds and aquatic ecosystems, including functions, habitats, and elements that support biological diversity.

Objective 6. Conserve and enhance native salmonid populations by protecting and restoring required habitats, water quality and watershed processes" (NCIRWMP, pp. 87 and 102). The proposed project would further these goals and objectives by enhancing tidal marshes in estuarine environments that are important to the health of salmon populations.

The proposed project is also consistent with the Water Quality Control Plan for the North Coast (adopted by the Regional Water Quality Control Board North Coast Region in 1988 and last updated in 2007) in that it will enhance wildlife habitat, habitat for rare, threatened and endangered species, and estuarine habitat in the Mad River Estuary and Humboldt Bay. The Water Quality Control Plan for the North Coast designates wildlife habitat, rare, threatened, and endangered species habitat, and estuarine habitat as beneficial uses of Humboldt Bay and of the Blue Lake Hydrologic Area of the Mad River (Water Quality Control Plan for the North Coast, Table 2-1, pp. 2-8 to 2-12).

The project is also consistent with, and furthers the goals of, the Humboldt Bay Management Plan (HBMP), prepared in May 2007 by the Harbor District. The HBMP expresses support for the goals of the proposed project in the following statement:

Salt marshes in the Bay have been reduced substantially in area with respect to their pre-settlement extent, and they continue to be lost. In addition, the extant salt marshes are degraded by the dominant presence of dense-flowered cordgrass. The benefits of shoreline-protecting salt marshes for stabilizing sediment and protecting shoreline structures from wave impacts combine with a conservation focus on maintaining or restoring salt marshes to make the restoration or enhancement of salt marshes an important concern for the District. (HBMP, p.129)

The proposed project is consistent with Objective CAS-3: "Maintain and enhance habitat for sensitive species" (HBMP, p.204), in that it will lead to the protection and restoration of habitat for Point Reyes bird's beak and Humboldt Bay Owls Clover, both listed as endangered by the California Native Plant Society. The proposed project is also consistent with HBMP Objective CAS-4: "Control or remove non-indigenous invasive species" (HBMP, p. 205).

The project is consistent with, and furthers the goals of, the Humboldt Bay Watershed Salmon and Steelhead Conservation (HBSSC) Plan, prepared by the Humboldt Bay Watershed Advisory Committee in March 2005. The HBSSC Plan highlights the importance of the Bay's tidal marshlands in supporting salmon populations, as well as diverse communities of fish and wildlife (p.11). The HBSSC Plan notes that estuarine habitat is necessary for the survival of salmon and that this habitat "has been significantly reduced by construction of levees and tidegates, and placement of fill" (HBSSC Plan, p.viii). One of the stated goals of the HBSSC Plan is to "Maintain and restore estuary processes that benefit salmonids" (HBSSC Plan, p.ix). The proposed project would further this goal by enhancing tidal marshes, as discussed above in the "Project Summary" section.

CEQA COMPLIANCE:

The project involves additional work in furtherance of and contemplated by the Humboldt Bay Regional Spartina Eradication Plan. On April 18, 2013 the Conservancy adopted the Plan and certified the “Final Programmatic Environmental Impact Report for the Humboldt Bay Regional *Spartina* Eradication Plan” (FEIR) pursuant to the California Environmental Quality Act (April 18, 2013 Staff Recommendation, attached as Exhibit 2; the FEIR is not attached to that Exhibit, but may be found at this link:

http://scc.ca.gov/webmaster/ftp/pdf/sccb/2013/1304/20130418Board08_HB_Invasive_Spartina_Eradication_Ex4.pdf). The FEIR described the Eradication Plan, assessed the potential environmental impacts associated with the implementation of the Plan and identified mitigation measures that would avoid or reduce these impacts to a less than significant level. The FEIR is maintained and available for review at the offices of the Conservancy.

The FEIR is a *programmatic* Environmental Impact Report (Section 15168 of the CEQA Guidelines, 14 Cal. Code of Regulations, Sections 15000 *et seq.*, hereafter “Guidelines”) in that it analyzes the potential effects of implementing the Eradication Plan throughout the Humboldt Bay region, rather than the impacts of a single individual eradication project. This program-level FEIR identifies mitigation measures that will be applied to reduce or eliminate impacts at treatment locations. The Conservancy may use the FEIR as a basis for “tiered” CEQA review and approval of individual treatment projects under the Eradication Plan, including the Spartina eradication activities in Humboldt marshes proposed by this staff recommendation.

A subsequent activity that follows under a programmatic environmental impact report that has been assessed and certified pursuant to CEQA (such as the FEIR) must be examined in the light of that programmatic report to determine whether an additional environmental document must be prepared. If the agency proposing the later activity finds that the environmental impacts of the later activity and the required mitigation to reduce those impacts were already identified and considered under the program environmental report, the activity can be approved with no further environmental documentation. (CEQA Guidelines, Section 15168(c)). The Guidelines further suggest the use of a written checklist or similar device to document the evaluation of the activity to determine whether the environmental effects of the operation were covered in the program environmental impact report (*Id.*).

The Conservancy has prepared a checklist (attached as Exhibit 5) for the eradication activities proposed under this authorization, identifying the activities, assessing the potential impacts of the activities, identifying the required mitigation identified by the FEIR and determining if the proposed activities will involve any additional impacts or more severe impacts than were identified by the FEIR and if any additional mitigation measures are needed to avoid or reduce those impacts.. Based on this analysis, Conservancy staff has concluded that the programmatic FEIR did fully consider the impacts associated with the proposed new activities and that there are no new impacts or more severe impacts and that there are no additional mitigation measures required. Conservancy staff recommends that the Conservancy adopt a finding to that effect.

Upon approval of the project, Conservancy staff will file a Notice of Determination.