

COASTAL CONSERVANCY

Staff Recommendation  
December 3, 2015

**WOOD CREEK ENHANCEMENT, PHASE II**

Project No. 04-095-03  
Project Manager: Joel Gerwein

**RECOMMENDED ACTION:** Authorization to disburse up to \$403,800 of U.S. Fish and Wildlife Service grant funds and up to an additional \$33,000 in Conservancy funds to the Northcoast Regional Land Trust for the implementation of Phase II of the Wood Creek Enhancement Project in Humboldt County to enhance fish and wildlife habitat, and adoption of findings under the California Environmental Quality Act.

**LOCATION:** Humboldt Bay area, unincorporated Humboldt County

**PROGRAM CATEGORY:** Resource Enhancement

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**EXHIBITS**

- Exhibit 1: [Project Location](#)
- Exhibit 2: [Addendum and Initial Study-Mitigated Negative Declaration](#)
- Exhibit 3: [Mitigation Monitoring and Reporting Plan](#)
- Exhibit 4: [65% Project Designs](#)
- Exhibit 5: [Site photographs](#)
- Exhibit 6: [Project Letters](#)

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**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 four hundred three thousand eight hundred dollars (\$403,800) from a U.S. Fish and Wildlife Service grant for the Wood Creek Enhancement Project and the disbursement of an additional thirty three thousand dollars (\$33,000) of Conservancy funds, for a total disbursement not to exceed four hundred thirty six thousand eight hundred dollars (\$436,800), to the Northcoast Regional Land Trust (NRLT) for the restoration and enhancement of coastal wetlands at Wood Creek, within the Freshwater Farms Reserve in the Freshwater Creek watershed of Humboldt Bay in unincorporated Humboldt County (Exhibit 1); and adopts the Mitigation Monitoring and Reporting Plan attached as Exhibit 3 to the accompanying staff recommendation.

This authorization is subject to the following conditions:

1. Prior to disbursement of any funds for the project, the NRLT shall submit for the review and approval of the 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. Evidence that all permits and approvals necessary to the project have been obtained.
  - c. Evidence that all necessary funds for implementation of the project have been obtained.
  - d. A plan for the installation of a sign acknowledging Conservancy and USFWS funding.
2. In implementing the project the NRLT shall ensure compliance with:
  - a. All applicable mitigation measures and monitoring and reporting requirements for the project that are identified in the Addendum and Initial Study-Mitigated Negative Declaration (“Addendum and IS-MND”), attached to the accompanying staff recommendation as Exhibit 2, and the Mitigation Monitoring and Reporting Plan (“MMRP”), attached to the accompanying staff recommendation as Exhibit 3, or in any permits, approvals or additional environmental documentation required for the project.”
  - b. All requirements of the USFWS grant, including compliance with the National Environmental Policy Act.

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 project is consistent with the purposes and objectives of Chapter 5.5 of Division 21 of the Public Resources Code, regarding integrated coastal and marine resources protection projects.
3. The Conservancy has independently reviewed and considered the information contained in the Addendum and IS-MND, pursuant to its responsibilities under the California Environmental Quality Act (“CEQA”). The Addendum and IS-MND identify potentially significant effects from implementation of the Project in the areas of biological resources, hazards/hazardous materials, and hydrology/water quality. As modified by incorporation of the mitigation measures identified in the IS-MND, project implementation will avoid, reduce, or mitigate all of the possible significant environmental effects of the project to a level that is less than significant. Based on the record as a whole, there is no substantial evidence that the implementation of Phase II of the Wood Creek Enhancement Project, as mitigated, will have a significant effect on the environment.
4. NRLT 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.”

**PROJECT SUMMARY:**

Staff recommends the acceptance of a United States Fish and Wildlife Service (USFWS) National Coastal Wetlands Conservation Program grant (\$423,800) and the disbursement of \$403,800 of those funds, along with the Conservancy's required matching funds (\$33,000), to the Northcoast Regional Land Trust (NRLT) for implementation of Phase II of the Wood Creek Enhancement Project. The project will enhance and restore coastal wetlands in NRLT's Freshwater Farms Reserve in the Freshwater Creek subwatershed of Humboldt Bay (Exhibits 1, 4, 5). The proposed project is needed to: a) restore and reconnect historic, tidally influenced wetlands in the Humboldt Bay watershed; b) create a more diverse and functional wetland system than exists today; c) increase the extent of brackish backwater habitat for coho salmon in the population stronghold of Freshwater Creek; d) provide a direct link between restoration projects in the upper and lower Wood Creek basin; e) enhance the resiliency of the Humboldt Bay ecosystem to climate change impacts; and f) provide educational programs to increase public awareness of the value of Humboldt Bay's wetland complexes.

An expansive stand of cattails (roughly seven acres) currently extends across the majority of the project area. While it does provide limited habitat benefits and ecosystem services, the cattail marsh lacks hydrologic connectivity and topographic and species diversity. The project will enhance the hydrology, topography, and vegetation of this area in ways that fulfill the potential of the site as diverse, productive and valuable wetland habitat. Wetlands will be constructed to attain varying depths and seasonality, ranging from approximately five feet deep to only a few inches near the fringes. A mix of native herbaceous, shrub, and tree species will be planted to add more habitat complexity and food diversity. Large woody debris will be strategically placed in wetlands, and channels to provide even more structural complexity. Approximately five acres of the existing cattail monoculture will be graded to support more diverse topography and vegetation. Approximately 2.5 acres of it will be replanted with other native species, including sedges, rushes, bulrushes, native grasses, shrubs, and trees, to create a mosaic of vegetation stands that provide food and cover for a variety of birds and other wildlife species. Small patches (<0.25 acres) of the invasive reed canary grass also occur in the project area. The project will seek to eradicate reed canary grass and prevent it from recolonizing the area in the future. Establishing riparian tree cover and native wetland plants will help prevent recolonization.

The restoration of the project area is critical for the recovery of multiple listed species. The Wood Creek watershed, and the larger Freshwater Creek watershed of which it is a part, provide important habitat for songbirds, waterfowl, and shorebirds, as well as critical spawning, rearing, and migration habitat for anadromous fish, including federally threatened coho salmon and steelhead trout, and habitat for endangered tidewater goby. Freshwater Creek supports the largest coho salmon runs of any Humboldt Bay tributary. Brackish backwater habitat, where young coho salmon can find refuge from wintertime floodwaters as well as a food-rich environment, is

particularly scarce in the Freshwater Creek watershed. The proposed project will provide habitat where young coho can grow quickly and find refuge from winter floods.

The project will improve hydrological connectivity between the project area and adjacent wetlands that are being protected and restored immediately downstream and upstream. Restoration work conducted by NRLT, the Conservancy, and the USFWS at the mouth of Wood Creek in 2009-10 restored tidal influence to lower Wood Creek and set the stage for the recovery of marshland habitats located along the Wood Creek drainage basin. Further upstream on the Felt Ranch, a neighboring private landowner is working in partnership with the Natural Resources Conservation Service (NRCS) Wetlands Reserve Program and the USFWS's Coastal Program to protect and restore the extensive, coldwater spring-fed freshwater wetlands that occur on that property at the upper end of the Wood Creek basin. The proposed project on NRLT's property would link these two efforts through a restored channel under the Myrtle Avenue causeway to create a highly functional and hydrologically connected wetlands complex extending from the brackish confluence with Freshwater Creek to the spring fed freshwater marshes located on the Felt Ranch. The coldwater input from the Felt Ranch springs will be especially valuable to coho salmon utilizing the project area.

The project will enhance the resiliency of the Humboldt Bay ecosystem to climate change impacts. By increasing habitat connectivity and complexity along a salinity gradient extending from the mouth of Wood Creek to upstream areas, the proposed project would provide for the migration of wetland species associated with rising sea levels. Furthermore, increasing the connectivity and extent of Wood Creek's floodplain wetlands will enhance the flood storage and conveyance functions of the creek during extreme rainfall events, which are also predicted to occur as a result of global climate changes.

The project will improve public understanding of wetland values by providing educational programs and opportunities to view the restored wetlands and associated wildlife. NRLT has been utilizing the Freshwater Farms property for educational programs since the first parcel was purchased in 2005. Since then thousands of students and area residents have visited the property to learn about wetlands and the effort to restore them at Wood Creek. The NRLT constructed a nature trail that skirts one corner of the project area in summer 2015 with Conservancy funding, providing additional opportunities for educational programming and wildlife viewing.

The project will excavate channel and pond features extending west from the existing Wood Creek channel and connecting to an existing seasonal freshwater causeway under Myrtle Avenue in order to restore historic streamflow and create approximately two acres of deepwater channel and pond habitat for coho and other salmonid species. The deepwater channels and ponds will be constructed to form an interconnected network of rearing habitat. In addition, the project will excavate material in and around adjacent cattail marsh to create approximately 5 acres of topographically diverse habitat hummocks and interconnected, shallow, seasonal ponds to create habitat for shorebirds, migratory birds, and a wide diversity of native plants and wildlife (Exhibit 4). Throughout the project area, there will be large wood placement and native plantings designed to enhance habitat for multiple terrestrial, aquatic, and plant species.

In addition, the NRLT, in partnership with Humboldt State University, the NRCS, and local ranchers, will use the project as an opportunity to explore the potential for prescribed grazing to be used as a management tool in the recovery and maintenance of coastal wetland habitats. A portion of the project area (5 acres or less) will be used experimentally to quantify the response of select habitat parameters to grazing treatments. These responses will be compared to no-grazing controls.

The project will also involve adaptive management alterations to Phase I of the Wood Creek Enhancement Project, designed specifically to improve the diversity and quality of native habitat for plants, fish, and wildlife. These adaptive management project features include:

1. Eradication of localized canary reed grass invasions;
2. Restoration of mud flat and non-native plant monoculture incidentally created by long-term Phase I tidal inundation to functioning wetland native plant complex compatible with agriculture;
3. Creation of a series of log sills in the Phase I excavated channels to prevent the stranding of fish during seasonal or tidal changes.

NRLT has worked since 2000 to establish a legacy of protected private land on California's North Coast to help shape a sustainable future for the north coast region's family-owned ranches, farms and forests. The NRLT has conserved and monitored more than 25,000 acres of working land, protected 320 acres of old- and mature- growth forest with salmon-spawning streams, managed and restored 195 acres of agricultural land and estuarine habitat, and facilitated public access on normally restricted private property through naturalist-led events. In partnership with the USFWS and the Conservancy, NRLT successfully implemented Phase I of the Wood Creek Enhancement Project, restoring tidal influence and fish and wildlife habitat to the portion of Freshwater Farms Reserve adjacent to the project area.

**Site Description:** The project is located on Humboldt County Assessor's Parcel Numbers 402-291-15 and 402-241-09. Specifically, the project is on the Freshwater Farms Reserve, due north of Myrtle Avenue at 5851 Myrtle Avenue, due east of the parking lot for the Freshwater Nature Trail and extending toward the confluence of Wood Creek and Freshwater Slough. The property is located at Freshwater Corners, west of Myrtle Avenue, north of Eureka, Humboldt County. The project area is historic tidal marsh that was reclaimed for agricultural purposes in the nineteenth century. Freshwater Farms was, in fact, Humboldt County's first Grade A Dairy. The project area is currently a mixture of pasture and cattail marsh. It is located in the lower and tidally influenced reach of Wood Creek near Humboldt Bay. The creek runs along the southern boundary of the project area, providing habitat for rare, threatened, or endangered species including Chinook and coho salmon, steelhead trout, coastal cutthroat trout, tidewater goby, and Lyngbye's sedge. Wood Creek is a tributary to Freshwater Creek, which drains a 20,000-acre watershed.

**Project History:** Freshwater Farms Reserve, a 74-acre parcel in the coastal zone of Humboldt Bay, was acquired by NRLT in two phases with the financial support and assistance of the State Coastal Conservancy. The first phase was the acquisition of 54 acres in 2005, and an additional 20 acres were acquired in 2013. In 2009, NRLT and its partners, including the Conservancy, restored a 35-acre salt marsh and tidal wetland along Wood Creek at Freshwater Farms Reserve

to create estuary habitat for juvenile coho salmon, cutthroat trout, Chinook salmon, steelhead trout, and endangered tidewater goby. Research by the California Department of Fish and Wildlife over the last five years has demonstrated that coho salmon in Freshwater Creek—in addition to other fish species—are directly benefiting from the nutrient-rich habitat created in this restoration project on Wood Creek. The Conservancy funded public access improvements on the property in 2015, including the construction of the signed Freshwater Nature Trail, rehabilitation of the historic Graham-Long Dairy Barn for adaptive re-use as a wet-weather classroom, and rehabilitation of the Freshwater Farms Native Plant Educational Garden and Nursery. These public access and educational improvements will complement and enhance the successful restoration projects—both completed and proposed in this staff recommendation—by sharing the story of habitat restoration, compatible agriculture, recreation, and education.

**PROJECT FINANCING**

<b>Coastal Conservancy</b>	<b>\$33,000</b>
USFWS National Coastal Wetlands Conservation Grant	\$423,800
Northcoast Regional Land Trust	\$12,000
<b>Project Total</b>	<b>\$468,800</b>

The USFWS has awarded \$423,800 to the Conservancy for project implementation, contingent on compliance with the National Environmental Protection Act (NEPA). Approximately \$403,800 of the grant will be disbursed to NRLT for project implementation, while the remaining \$20,000 would pay for Conservancy staff costs associated with the project.

The Conservancy’s additional contribution of Conservancy funds in the amount of \$33,000 for disbursement to NRLT for project implementation is expected to come from the Conservancy’s FY 1996, 1997, and 1998 appropriations from the Habitat Conservation Fund (“HCF”) (under the “California Wildlife Protection Act of 1990” – Proposition 117). The Conservancy may use HCF funds for the restoration, or enhancement of wetlands, and for restoration or enhancement of aquatic habitat for spawning and rearing of anadromous salmonids and trout resources. (Fish & Game Code 2786(d) and (e)). The source for each of these three HCF appropriations is the “Unallocated Account” of the Cigarette and Tobacco Products Surtax Fund (Revenue and Taxation Code §§30121 *et seq.*). Thus, these funds must be also used for purposes consistent with the requirements of the Cigarette and Tobacco Products Surtax Fund. Under Revenue and Taxation Code section 30122(a)(4), Surtax Fund monies may be used for any project, such as the proposed project, which serves to restore and enhance fish, waterfowl and wildlife habitat areas.

NRLT’s contribution is in the form of private donations that will pay for educational programs at the project site.

The project will also benefit from significant in-kind contributions from the USFWS, in the form of engineering and design work contributed by the USFWS Coastal Program.

**CONSISTENCY WITH CONSERVANCY’S ENABLING LEGISLATION:**

The proposed project is undertaken pursuant to Chapter 5.5 of Division 21 of the Public Resources Code (Section 31220), as follows: Pursuant to Section 31220(a) and 31220(b), the Conservancy may undertake projects to protect and restore coastal habitats if the project “protects or restores fish and wildlife habitat within coastal and marine waters and coastal watersheds” or “restores coastal wetlands, riparian areas, floodplains, and other sensitive watershed lands, including watershed lands draining to sensitive coastal or marine areas.” Consistent with this section, the proposed project will result in the restoration of tidal marshes that provide habitat for fish and wildlife, including listed species, in Humboldt Bay. The Conservancy has consulted with the State Water Resources Control Board in the development of the project to ensure consistency with Chapter 3 of Division 20.4 of the Public Resources Code regarding water quality. (See Exhibit 6, Project Letters). Consistent with Section 31220(c), the proposed project includes a monitoring and evaluation component, as reflected in the Wood Creek Tidal Marsh Enhancement Monitoring Plan, prepared for NRLT by the Redwood Community Action Agency, and is consistent with applicable and relevant Integrated Regional Water Management programs, local watershed management plans, and water quality control plans adopted by the state or regional water quality control boards, as discussed in the “Required Criteria” and “Consistency with Local Watershed Management Plan/State Water Quality Plan” sections below. In addition, NRLT staff will monitor the Reserve for changes in its function.

**CONSISTENCY WITH CONSERVANCY’S 2013 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S), AS REVISED JUNE 25, 2015:**

Consistent with **Goal 5, Objective 5B** of the Conservancy’s 2013-2018 Strategic Plan, the proposed project would restore 12 acres of coastal wetlands.

Consistent with **Goal 5, Objective 5D** of the Conservancy’s 2013-2018 Strategic Plan, the proposed project would enhance coastal watersheds and floodplains.

Consistent with **Goal 5, Objective 5E** of the Conservancy’s 2013-2018 Strategic Plan, the proposed project would improve fish habitat by providing in stream habitat and favorable water temperatures.

**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:** By restoring and enhancing wetlands providing fish and wildlife habitat, the proposed project serves to promote and implement several state plans, including:
  - Priority Action 4 identified in the 2014 *California Water Action Plan*, prepared by CalEPA, the California Natural Resources Agency, and the California Department of Food and Agriculture), which provides: “Protect and Restore 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 identified in the *California Nonpoint Source Pollution Control Program* prepared by the State Water Resources Control Board in 2000: MM6B-Restoration of Wetlands and Riparian Areas, which provides for the recovery of a range of wetland and riparian functions that existed previously by reestablishing hydrology, vegetation, and structure characteristics.
  - *California Wildlife Action Plan*, prepared by the California Department of Fish and Wildlife (CDFW) in 2007: Federal, state, and local agencies, nongovernmental conservation organizations, and private landowners should protect and restore under-protected and sensitive habitat types.
  - 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.
4. **Support of the public:** The project is broadly supported by the public. See Exhibit 6 for letters of support.
5. **Location:** The proposed project would be located within the coastal zone of Humboldt County.
6. **Need:** While NRLT is leveraging in-kind contributions and funding from other sources, the project could not occur without Conservancy funding.
7. **Greater-than-local interest:** The project will make a significant contribution to the recovery of multiple listed species, especially coho salmon. Preliminary monitoring data show that target salmonid species (coho salmon, and steelhead and coastal cutthroat trout) have been utilizing the channels and fresh water pond restored in Phase I of the Wood Creek Enhancement Project, with up to 123 juvenile coho salmon using the same small pond at one time. The consensus among local fisheries experts is that additional fresh water pond habitats are essential in supporting and improving local salmonid populations. The proposed project



would create substantially more channel and pond habitat where the freshwater influence is greatest and salinity levels are ideal for utilization by coho salmon.

8. **Sea level rise vulnerability:** The project area is vulnerable to inundation in existing conditions if dikes protecting the area were to fail. However, the project area could persist as tidal marsh after inundation. Sea level rise adaptation planning efforts that are in development, led by the Coastal Ecosystems Institute of Northern California and Humboldt County, will address the vulnerability of the Eureka and Freshwater Slough area, which includes active agricultural areas, commercial areas, and critical infrastructure including water lines, gas lines, and power lines.

Despite the long term vulnerability of the project area to sea level rise, the project will enhance the resiliency of the Humboldt Bay ecosystem to climate change impacts in the medium term while the dikes are in place. By increasing habitat connectivity and complexity along a salinity gradient extending from the mouth of Wood Creek to upstream areas, the proposed project would provide for the migration of wetland species associated with rising sea levels. Furthermore, increasing the connectivity and extent of Wood Creek's floodplain wetlands will enhance the flood storage and conveyance functions of the creek during extreme rainfall events, which are also predicted to occur as a result of global climate changes.

#### **Additional Criteria**

9. **Leverage:** See the "Project Financing" section above.
10. **Readiness:** The project will be ready to implement in the near future, most likely in summer 2016. Project designs are at 65% and compliance with the California Environmental Quality Act (CEQA) is complete. The County permitting process has been completed.
11. **Realization of prior Conservancy goals:** "See "Project History" above."
12. **Return to Conservancy:** See the "Project Financing" section above.
13. **Cooperation:** NRLT is working with Redwood Region Audubon Society and faculty at Humboldt State University to offer educational programs at the site.
14. **Vulnerability from climate change impacts other than sea level rise:** The project would provide for the migration of wetland species associated with rising sea levels by increasing habitat connectivity and complexity along a salinity gradient extending from the mouth of Wood Creek to upstream areas. The project will also enhance the flood storage and conveyance functions of the creek during extreme rainfall events by increasing the connectivity and extent of Wood Creek's floodplain wetlands. Extreme rainfall events are predicted to increase as a result of global climate changes.

#### **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 actions 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 PLANS/  
STATE WATER QUALITY CONTROL PLAN:**

The project is consistent with, and furthers the goals of, the *Humboldt Bay Management Plan* (HBMP), prepared in May 2007 by the Humboldt Bay Harbor, Conservation and Recreation District. 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 restoration of habitat for coho and Chinook salmon, steelhead trout, tidewater goby, and coastal cutthroat trout.

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 restoring tidal wetlands.

The proposed project is 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 Humboldt Bay. The Water Quality Control Plan for the North Coast specifies beneficial uses and water quality objectives for North Coast water bodies, including the Eureka Plain HU, which includes the project area. By protecting wetlands and adjacent uplands, this project will protect and enhance beneficial uses of the Freshwater Creek watershed in the Eureka Plain HU identified in the Plan, including 1) wildlife habitat, 2) rare, threatened and endangered species habitat, and 3) estuarine habitat (Water Quality Control Plan for the North Coast, Table 2-1, pp. 2-8 to 2-12).

**COMPLIANCE WITH CEQA:** The proposed project is Phase II of the Wood Creek Enhancement Project, which involves an expansion and extension of the work begun in 2008 under Phase I. The Humboldt County Planning Commission approved a conditional use permit for the Phase I work on September 4, 2008 and also approved an Initial Study-Mitigated Negative Declaration (IS-MND) (included as part of Exhibit 2) for Phase I in accordance with the California Environmental Quality Act (CEQA).

In considering Phase II work for purposes of CEQA, the County staff evaluated the potential environmental impacts of the Phase II work in order to determine if additional environmental documentation beyond the IS-MND prepared for Phase I would be required under CEQA.

Section 15164 of the CEQA Guidelines (found at 4 Cal. Code Regs. §15000 *et seq.*) allows the use of an “addendum” in lieu of further environmental documentation if changes in a project do not result in new significant environmental effects or any substantial increase in the severity of previously identified significant effects or require additional mitigation measures not previously considered (see CEQA Guidelines §15162). The County staff concluded that Phase II of the Wood Creek Enhancement Project predominantly involved an increase in the area of Wood Creek’s floodplain to be restored, which utilized methodology and activities that were the same as or less intrusive than those required for Phase I and did not involve any new potential significant effects or require any additional mitigation. Accordingly, County staff prepared an “Addendum to the Mitigated Negative Declaration” for the Phase II work (attached as part of Exhibit 2). On December 18, 2014, the Humboldt County Planning Commission approved a conditional use permit for Phase II of the Wood Creek Enhancement Project, based on the Addendum and IS-MND (Exhibit 2) and conditioned on the mitigation measures identified in the IS-MND, as applicable to the work under Phase II.

Conservancy staff has reviewed the Addendum and IS-MND. Based on that review, for the following reasons, staff concludes that: 1) no additional environmental documentation beyond the Addendum is required for the proposed Phase II project work; and 2) the mitigation measures identified in the IS-MND, as applicable to the Phase II work, avoid or reduce the environmental effects of any potential significant impact to a less than significant level.

First, the project area for Phase I of the project overlaps with the area for Phase II, and the two phases involve very similar activities. Like Phase II, Phase I involved restoring tidal influence and wetland hydrology to diked historic tidelands, and enhancing the area’s value as fish and wildlife habitat. Specifically, Phase I involved the removal of a tidegate in Wood Creek, the removal of a defunct tidegate and culvert south of Wood Creek, installation of salinity sills, excavation of slough channels, and redistribution of spoils to create a continuum of wetland types, and planting of salt marsh and riparian vegetation. Phase II will involve the same activities in an adjacent area to the Phase I area, with the important exception that no work will be conducted in Wood Creek channel itself, apart from the final connection of newly excavated channels with the creek at the end of project construction.

The wetlands to be restored as part of Phase II will be excavated before being connected to Wood Creek. Only when excavation and grading of these restored wetlands is completed will the final sediment plug separating them from Wood Creek be removed, establishing hydrologic connectivity. Therefore, ground disturbing activities for Phase II will have a very low probability of impacting fish. The proposed project does involve installation of log sills and large wood in the channels excavated in Phase I, which currently provide fish habitat (Exhibit 4). However, the log sills and large woody debris will be installed in the dry season during low tide, avoiding potential impacts to fish. The lack of disturbance to Wood Creek greatly reduces the potential impacts to biological resources from the project, leaving only the potential for impacts to rare plants and to wetlands from grazing, addressed by the mitigation measures for Phase I (see discussion below). In addition, Phase II involves adaptive management of a portion of the Phase I area that has converted to mudflat, reducing the vegetated area desired in the original design.

Since the nature of the work under Phase II is near- identical to the nature of the comparable work for Phase I, the IS-MND analysis is equally applicable to Phase II work. However,

because, as explained above, Phase II will not involve all types of work done under Phase I, not all of the impacts considered for Phase I are applicable to Phase II and, likewise, neither are the related mitigation measures. Thus, the impacts of Phase II are exactly those identified in the IS-MND for Phase I, although there are fewer potentially significant impacts for Phase II, and the mitigation proposed for Phase I impacts are likewise the same for Phase II. Thus, under CEQA no further environmental documentation, beyond the Addendum describing the additional project work and the existing IS-MND (Exhibit 2), is needed.

Second, the IS-MND provides a detailed analysis of potential environmental impacts for the work involved under the Wood Creek Enhancement and proposed mitigation measures to address the possible impacts of that work. As applicable to Phase II work, the IS-MND identified possible significant effects of the project in the areas of Biological Resources, Hazards and Hazardous Materials, Hydrology and Water Quality, and Noise. Mitigation measures identified in the IS-MND will reduce all of these impacts to a less than significant level. The potential adverse environmental impacts of the project and the associated mitigation measures result from the construction activities and are summarized below.

### **Biological Resources**

*Impacts to rare plants:* Project construction could result in impacts to rare plants in the project area. Lyngbye's sedge, a California Native Plant Society plant species of concern, is present in the project area. The IS-MND discusses the potential of other rare plants to occur, but recent botanical surveys have determined that Lyngbye's sedge is the only rare plant species present. The following measures will reduce this potential impact to a less than significant level.

1. A qualified botanist will locate and flag all populations of plant species of concern in the project area prior to construction.
2. Heavy equipment will be confined, to the maximum extent practicable, to within the proposed secondary tidal slough channels and proposed salt marsh bench footprints.
3. If it is possible, Lyngbye's sedge will not be disturbed during excavation or grading. If populations of these plants cannot be avoided during excavation or grading they will be removed as "wafers" (top 12 inches of vegetation/topsoil) and either transplanted immediately or stored separately on pond liners. These soils will be kept moist until they are re-placed along the new secondary tidal channels at the appropriate finished grade and in the same orientation.
4. The in-channel excavation work will be performed at low tide and at the lowest seasonal stream flows when water levels in Wood Creek are as low as possible.

*Impacts to wetlands:* Wetlands restored and enhanced by project construction could be impacted by livestock grazing after project completion. This impact will be reduced to a less than significant level by the installation of exclusionary cattle fencing to protect wetland vegetation in the project area.

### **Geology and Soils:**

*Erosion:* The project has the potential to result in significant erosion and loss of topsoil. This impact will be reduced to a less than significant level by the following measures.

- 1) Construction shall be limited to the dry season, between July 1st and October 31st.

- 2) The disturbance footprint shall be minimized.
- 3) A silt fence shall be deployed during construction to trap suspended sediment that might leave the construction site if stormwater runoff were to occur. If the silt fence is not adequately containing sediment, the construction activity shall cease until remedial measures are implemented that prevent sediment from entering the waters below. Turbid water shall be contained and prevented from being transported to the slough in amounts that could violate state pollution laws.
- 4) Areas identified by a consulting engineer as having "wet" or "soft" soils: (a) shall be covered with heavy synthetic mats or other acceptable non-toxic material and gravel that can be readily laid down and immediately removed following construction, and (b) shall be the minimum width and length necessary to allow movement of equipment to and from the project site.
- 5) Following completion of grading of the wetlands and channels, all disturbed ground shall be mulched and planted with grass seed for immediate erosion control and appropriate wetland plants.

**Hazards and Hazardous Materials:** The project's use of heavy equipment and vehicles contains a risk of an accidental release of fuel, oil and coolant. This potential impact will be reduced to a less than significant level by implementation of the following measures.

1. Heavy equipment that will be used in the project will be in good condition and will be inspected for leakage of coolant and petroleum products and repaired, if necessary, before work is started.
2. Equipment operators will be trained in the procedures to be taken should an accident occur.
3. Prior to the onset of work the contractor will prepare a plan for the prompt and effective response to any accidental spills.
4. Absorbent materials designed for spill containment and cleanup will be kept at that project site for use in case of an accidental spill.
5. Refueling of equipment will occur off-site.
6. If equipment must be washed, washing will occur off-site.
7. Stationary equipment will be positioned over drip pans.
8. All internal combustion engines shall be fitted with spark arrestors.
9. The contractor shall have appropriate fire extinguishers and fire fighting tools present at all times when there is a risk of fire.
10. Vehicles shall not be parked in tall grass or any other location where heat from the exhaust system could ignite a fire.

**Hydrology and Water Quality:** The project potentially could exceed state water quality standards for sedimentation, suspended sediment or turbidity, resulting in significant water quality impacts if the following mitigation measures are not successfully implemented.

1. Excavated channels and wetlands will not be connected to Wood Creek until the end of the project.
2. If vehicular equipment encounters wet areas in the course of construction, then geotextile mats and crushed rock will be placed in these areas to minimize compaction, and all material will be removed on completion of the project.
3. Appropriate Erosion and Sediment Control best management practices shall be implemented to protect and stabilize soils and stream banks disturbed by project activities, prevent entry of

storm water runoff into the excavation site, the entrainment of excavated contaminated materials leaving the site, and to prevent the entry of polluted storm water runoff into coastal waters during the transportation and storage of excavated contaminated materials, as follows.

- Construction will only occur between July 1st and October 31st when the ground surface is dry to reduce the chance of storm water runoff occurring during construction.
- During construction a combination of silt fence or fiber rolls will be deployed along the top of bank on the north side of Wood Creek to trap suspended sediment that might leave the construction site if storm water runoff were to occur. If the silt fence or fiber rolls are not adequately containing sediment, the construction activity shall cease until remedial measures are implemented that prevent sediment from entering the waters below.
- No construction materials, debris, or waste, shall be placed or stored where it may be allowed to enter into or be placed where it may be washed by rainfall into waters of the U.S./State.
- When the project surfaces have been recontoured all exposed surfaces will be straw mulched or hydro-mulched and seeded with appropriate grass seed or planted with wetland plants.
- Exclusionary cattle fencing will be installed to protect vegetation planted in the project area.
- All temporary fill, synthetic mats and silt fences will be removed from wetlands and waters of the U.S./State immediately on cessation of construction.
- Following completion of work all disturbed grazed seasonal wetlands around the perimeter of the project area will be de-compacted and seeded as needed.

Based on the foregoing and on the extensive analysis contained in the IS-MND, staff concurs that, as mitigated, the project avoids or minimizes potential impacts of the project so that they are less than significant. Thus, staff recommends that the Conservancy adopt the proposed CEQA findings provided in the resolution. The findings conclude that the Conservancy has undertaken an independent review of the environmental effects of the Project, as required by CEQA, and that the project, as modified by incorporation of the mitigation measures identified in the Addendum and IS-MND, will avoid, reduce, or mitigate all of the possible significant environmental effects of the project on these resource areas to a level that is less than significant. Based on the record as a whole, there is no substantial evidence that the implementation of Phase II of the Wood Creek Enhancement Project, as mitigated, will have a significant effect on the environment.

The County did not adopt a monitoring and reporting program for the mitigation measures identified in the negative declaration to assure the proposed measures are effectively implemented (see CEQA Guidelines section 15097). Therefore, staff has prepared such a monitoring program for the project, attached as Exhibit 3, and recommends that the Conservancy adopt this program to ensure that the proposed mitigation measures are implemented by NRLT as it undertakes the project.

Upon Conservancy concurrence with the proposed findings and approval of the project, Conservancy staff will prepare and file a Notice of Determination.