COASTAL CONSERVANCY

Staff Recommendation
February 2, 2017

EEL RIVER ESTUARY AND CENTERVILLE SLOUGH ENHANCEMENT PROJECT: IMPLEMENTATION

Project No.: 12-018-03
Project Manager: Michael Bowen

RECOMMENDED ACTION: Consideration and certification of the Final Environmental Impact Report (EIR) for the Eel River Estuary and Centerville Slough Enhancement Project; approval of the version of the project identified as Alternative 4 in that report ("the Project"); adoption of findings and Mitigation Monitoring and Reporting Program; and authorization to disburse up to $950,000 of U.S. Fish and Wildlife Service funds to The Wildlands Conservancy for implementation of the Project."

LOCATION: Centerville Slough, tributary to the Salt River, near Ferndale, Humboldt County (Exhibit 1)

PROGRAM CATEGORY: Coastal Resource Enhancement

EXHIBITS

Exhibit 1: Project Location Maps and Alternatives

Exhibit 2: Proposed Actions and Budget

Exhibit 3: Staff Recommendation April 18, 2013

Exhibit 4: Final EIR

Exhibit 5: Mitigation Monitoring and Reporting Program and Adaptive Management Program.

Exhibit 6: Project Letters

RESOLUTION AND FINDINGS:

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

"The State Coastal Conservancy hereby certifies the *Final Environmental Impact Report, Eel River Estuary and Centerville Slough Enhancement Project, January 2017* (Final EIR), approves the version of the Eel River Estuary and Centerville Slough Enhancement Project identified as Alternative 4 in the Final EIR ("the Project") at Centerville Slough, near Ferndale (Exhibit 1),

and adopts the Mitigation Monitoring and Reporting Program (MMRP) (Final EIR and MMRP are attached to the accompanying staff recommendation as Exhibits 4 and 5, respectively). The Conservancy further authorizes the disbursement of up to $950,000.00 (nine hundred fifty thousand dollars) of U.S Fish and Wildlife Service grant funds to The Wildlands Conservancy (TWC) to implement the Project subject to the following conditions:

1. Prior to the disbursement of funds, TWC shall have obtained sufficient matching funds to satisfy the obligations of the federal grant agreement.
2. Prior to the disbursement of funds, TWC shall submit for the review and approval of the Conservancy's Executive Officer: 1) a work program including schedule and budget, and the names of any contractors it intends to use to complete the improvements, 2) a sign plan, and 3) evidence that all necessary permits and approvals have been obtained.
3. Prior to commencing the Project, TWC shall enter into and record an agreement pursuant to Public Resources Code 31116(c) sufficient to protect the public interest in the improvements.
4. In carrying out the Project, TWC shall comply with all applicable mitigation and monitoring measures identified in the Final EIR and comply with all measures that are required by any permit or approval.
5. TWC shall comply with all applicable terms and conditions imposed by any federal or state 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. The authorization is consistent with Chapter 6 of Division 21 of the Public Resources Code, regarding enhancement of coastal resources.
2. The Project is consistent with the current Conservancy Project Selection Criteria and Guidelines.
3. The Conservancy has independently reviewed and considered the information contained in the Final EIR pursuant to its responsibilities as the lead agency for the Project under the California Environmental Quality Act (CEQA). The Final EIR was completed in compliance with CEQA under the direction and supervision of the Conservancy and reflects the Conservancy's independent judgment and analysis.
4. The Final EIR identifies varying degrees of impacts from the implementation of the Project in several resource categories. With regard to these impacts, as modified by incorporation of the mitigation measures identified in the Final EIR, or through design elements intended to minimize or avoid harmful impacts, the Project was changed to avoid, reduce or mitigate the possible significant environmental effects of the Project as described further in the accompanying staff recommendation.
5. The Wildlands Conservancy 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 is recommending the Conservancy certify the final environmental impact report for the Eel River Estuary and Centerville Slough Enhancement Project in Humboldt County (see Exhibit 1) (Final EIR), approve the Project in the form of Alternative 4 ("the Project" or "Alternative 4"), and approve the disbursement of funds received from the U.S. Fish and Wildlife Service to The Wildlands Conservancy (TWC) to implement the Project on the Eel River Estuary Preserve (EREP). Certification of the EIR will enable TWC to apply for permits and seek additional necessary funding to implement the Project. The Project will significantly advance ecosystem restoration and agricultural preservation in the Eel River Delta, an area once hosting more than six thousand acres of tidally influenced habitat that has received national recognition for the several significant ecosystem restoration projects underway there.

The Project is recommended by staff over the EIR proposed Project ("2016 Proposed Project") primarily due to the recent withdrawal of co-applicants and adjacent property owners from the 2016 Proposed Project. The Project is distinguished from the 2016 Proposed Project in three key ways: 1) Work is limited to the Eel River Estuary Preserve (EREP) owned by TWC; 2) the Project avoids any alteration or adjustment to the existing Drainage Easement amongst the property owners in the area, and 3) the Project reduces environmental impacts below those levels identified and mitigated under the 2016 Proposed Project. These differences are discussed in greater detail, below.[1]

The goal of the Project is to improve geomorphic and ecosystem function on the EREP. The Project will enhance habitats for native fisheries and aquatic species, support waterfowl and wildlife species, and benefit agricultural land management by more effectively managing onsite flooding and sedimentation. The Project objectives also incorporate various measures intended to accommodate future climate change and sea level rise. Proposed actions and costs of the Project are summarized in the attached Exhibit 2.

Proposed activities will enhance the approximately 1,237-acre Project area, transitioning it from a landscape of diked pasture land to a system of pastures and natural habitats, including estuarine and tidal slough channels, freshwater streams, freshwater waterfowl ponds and enhanced agricultural pastures. Critical to achieving the Project goals and objectives is an enhancement in tidal flushing to reactivate wetlands functions within the Inner Marsh and Centerville Slough portion of the Project area (Exhibit 1).

The Project includes design and installation of new tidegates to introduce muted tidal prism into the Inner Marsh and Centerville Slough, occupying historic tidal slough channels that have persisted more than a century, despite former reclamation efforts, floods and significant tectonic activity. This will enhance aquatic organism passage from the Eel River to Centerville Slough, and Russ Creek, while improving drainage efficiency for the betterment of agricultural activities in the Project area.

[1] This staff recommendation uses a lowercase "the project" in some contexts that refer equally to the 2016 Proposed Project and Alternative 4.

All construction activities proposed under this authorization will take place on the EREP, as described in Alternative 4 and as required by the terms of the federal grant agreement with the U.S. Fish and Wildlife Service.

The 2016 Proposed Project analyzed in the Final EIR contains activities that would take place on both the EREP as well as adjacent parcels owned by Russ Ranch and Timber, LLC (RR&T) and Jack and Linda Russ, collectively referred to as "Russ." The analysis of the larger 2016 Proposed Project took place at the request of Russ, and was funded primarily with grant augmentations by the Conservancy to an existing grant to California Trout described under Project History, below. Despite more than two years of discussions and analysis, the grantee (CalTrout), the Conservancy, and their consultants (collectively "The Project Team") were unable to satisfy the Russ' concerns about project related activities.. Therefore, Conservancy staff are recommending that the Conservancy approve the Final EIR, Alternative 4 (referred to in this staff recommendation as "the Project" or "Alternative 4"), which is limited to the EREP, and which avoids conflicts with the existing Drainage Easement, a legal instrument in which TWC and another neighbor grant the Russes certain rights to access and maintain drainage infrastructure on the EREP.

TWC is a nonprofit organization whose dual mission is to "preserve the beauty and biodiversity of the earth and to provide programs so that children may know the wonder and joy of nature." TWC has extensive experience in agricultural land management, public access and education and natural resource enhancement, and therefore has the necessary skill and capacity to achieve the goals and objectives of the Project.

The Project will culminate years of planning and design work funded by the Conservancy and the California Department of Fish and Wildlife (CDFW), most notably the Conservancy authorization of 2013 (Exhibit 3). The construction elements and anticipated costs are summarized in Exhibit 2 and are more specifically described below:

Retrofit Existing Cut-Off Slough Tidegate

The Cut-Off Slough tidegate structure will be repaired to serve its original purpose with modified gates that will improve fish passage without significantly altering water quality and water level relative to existing conditions. The Project does not propose to increase capacity at this structure; however, proposed repairs there will likely improve gate efficiency. The Project proposes to improve aquatic passage, and not adversely impact existing hydraulic conditions upstream. Repaired tidegates and/or fish passage doors inserted into the existing structure will allow for improved, but managed, tidal function and improved drainage efficiency in Cut-Off Slough and adjoining properties, while also providing fish passage and complying with state and federal law.

The repaired or replaced gates will be steel or aluminum, side- and/or top hinged designed to meet specific hydraulic performance and installed by a gate manufacturer to the existing concrete wall with a new seal. To reduce costs and minimize abrupt hydraulic changes, gates may be installed or replaced individually.

Reestablish Historic Centerville Slough

In order to increase aquatic habitat and enhance the movement of water and fish/wildlife to the north and south, the Project proposes to restore much of Centerville Slough, once the largest tributary of nearby Salt River. This will be achieved by excavating a channel along its historic

alignment. The south end of the proposed Centerville Slough alignment will terminate near an existing bridge at the southern portion of the EREP, north of the existing Angels Camp area. The channel would terminate a sufficient distance from the Western Drainage Ditch maintaining the integrity of that feature encompassed in an existing Drainage Easement between TWC and the Russes. The northern end will follow its historic alignment into Cut-Off Slough near an existing bridge crossing. By limiting the tidal exchange into Centerville Slough, the Project will provide habitat and agricultural benefits while also ensuring that restored tidal exchange to Centerville Slough is maintained at a low enough elevation to ensure that adjacent property owners –whose levees have deteriorated to low elevations—will not be adversely impacted by the Project.

Reintroduce Tidal Prism to Inner Marsh and Historic Centerville Slough

To increase and improve tidal wetland and salmonid rearing habitat, tidal exchange will be reintroduced to the Inner Marsh and to a lesser degree to the reestablished Centerville Slough. A new tidegate structure connecting the Inner Marsh to Cutoff Slough will be installed through the existing dike immediately west (outboard) and separate from the existing Cut-Off Slough tidegate structure. This new tidegate will likely have multiple gates including a muted tidegate regulator (MTR). Strategic design and sizing of these new tidegates will restrict tidal exchange to the Inner Marsh such that tidally-controlled water levels will not raise above 2.5 feet in elevation during the winter months and 5 feet during the summer months. This design approach ensures that the Inner Marsh has the capacity to store Russ Creek floodwater following winter storm events. The new tidegate structure will be approximately 75 feet long by 100 feet wide and 20 feet tall. The Project's Water Level Management Plan will include specific tidegate settings and seasonal operation guidelines to meet the desired hydraulic conditions for the area. The existing interior Inner Marsh dike will be raised to a minimum 8.0 feet elevation, widened in discrete areas, and resurfaced with gravel to improve access reliability for operation and maintenance needs. Existing failed culverts that connect the Inner Marsh to Cut-Off Slough will be removed and the dike repaired in these locations.

Reconnect Russ Creek to Centerville Slough

A newly graded channel will follow an historic Russ Creek alignment to re-establish hydrologic and biological connectivity with Centerville Slough. This excavation above the 2.5' elevation will improve site drainage, create in-channel flood storage, reestablish a long tidal to freshwater ecotone and provide a wetland prism that includes freshwater wetland and/or riparian habitat. In addition, the improved Russ Creek channel will restore habitat connectivity for anadromous fish unavailable for more than a century.

Develop Sediment Management Area on Russ Creek

To accommodate natural flood processes, sediment management areas will be established in avulsion prone regions along Russ Creek. Sediment deposits on the Eel River Estuary Preserve will remain or be seasonally relocated within sediment management areas and approved locations as needed. The sediment management area will then be seeded and irrigated as needed to enhance agricultural productivity in those areas.

Public Access and Recreation Components

TWC allows public access on the EREP in the form of a historic duck hunting club, scheduled and docent led small group site visits, and educational events for elementary school children to learn about wetland and estuary systems and agriculture as practiced in the coastal zone. The issue of public access to the EREP remains a subject of controversy. The Project contains the following public access and recreation features:

North Barn Parking Area and Interpretive Signage

Minor improvements to the North Barn Parking Area and signage limiting visitors to existing trails will facilitate TWC's outreach and education efforts while minimizing impacts to the Project area. Signs about the cultural, agricultural and natural heritage of the area would interpret the landscape for viewers. A vault toilet will be installed to reduce impacts and traffic back to the entrance.

Dune Walk and Overlook

A short boardwalk and trail with an overlook will take visitors from an existing trail into an intact dunefield for birding and natural observation.

Kayak Put In and Take Out

Two kayak put in and take out facilities will be installed, one along Cut-Off Slough at the outboard site of the tidegates, and another near the north end of the Inner Marsh. These minor structures will facilitate post-project monitoring of the Inner Marsh, aquatic educational programs and minor recreational use by visitors.

Road and Pasture Improvements

In order to ensure the viability of continued agricultural operations within and around the Project site, a variety of minor appurtenant structures are proposed, such as new gates, road improvements, lighting and fencing.

Adaptive Management Program

Ongoing operations and maintenance activities are necessary to assure long-term hydraulic and ecological functions of the overall Project. Establishing a formal and predictable structure to facilitate these O&M activities is essential to the Project. An Adatpive Management Program (AMP) including a Water Level Management Plan (WLMP) will assist land managers to respond to unanticipated changes to Project components reliably and affordably.

Site Description: The Project area is limited to the Eel River Estuary Preserve (EREP) owned by TWC, and does not include various parcels owned by former co-applicants Russ Ranch and Timber, L.L.C (RR&T) and Jack and Linda Russ, collectively referred to as "Russ". The Project area is approximately 1,237 acres and is located approximately four miles west of the City of Ferndale. The EREP, formerly known as Connick Ranch, comprises approximately 1,153 acres of reclaimed remnant tidal sloughs, tidal wetlands managed for agricultural production, and a

strip of approximately 84 acres of coastal dunes about 3 miles long and 1-3 acres wide, formerly known as the "Palco Property." TWC acquired Connick Ranch in 2008 and then assembled the highly fragmented Palco Property parcels with private funding at significant effort and expense. TWC continues to make this scenic area available for ecological enhancement and recreational use, while maintaining and improving agricultural use through land management efforts and leases to the Miranda Brothers. The EREP extends from the mouth of the Eel River nearly to Centerville Beach, 3.5 miles to the south. (Exhibit 1).

The Project site is part of the greater floodplain of the Eel River, and is at the mouth of the Eel River Delta, an area extending from the mouth up to the confluence of the Van Duzen River. The Delta, located 13 miles south of the City of Eureka, covers approximately 33,000 acres, or 50 square miles. Elevations range from sea level at the river mouth to approximately 700 feet in upland areas near Table Bluff and the Wildcat Hills. Most of the delta lands are relatively flat. The Eel River estuary, particularly the Project area, was once comprised of an intricate network of sloughs, side channels and open water, which, in combination with the tidal exchange and a substantial input of freshwater, provided a hospitable and ever-changing environment for a rich assemblage of wildlife. Due to the depth and complexity of the channel network, the Project area supported a significant commercial shipping industry capable of transporting much of the bounty of southern Humboldt County to faraway ports such as San Francisco.

The Eel River estuary and the Project area particularly was significantly altered over the last 150 years. By 1900, much of the Project area had been patented and reclaimed from tidal marsh for agricultural purposes. By 1970, the estuary, inclusive of sloughs and side channels, was reduced by tens of thousands of acres to 2,200 acres, or 3.4 square miles. The reduction in estuarine size corresponded with the increase of agricultural land within the delta region, as salt marsh was converted to pasture. It also corresponds to a general decline in the quality and quantity of the estuarine environment, declining salmon populations, and a marked reduction in the tidal prism of the estuary. This equates to a possible 60 percent reduction in overall tidal prism[2] and a commensurate decrease in estuarine area over time.

Due to the reduction in hydraulic connectivity and associated tidal prism, flooding and ponding has increased over time. As with the nearby Salt River, drainage of flood waters is impaired by diminishment of channel capacity. Unlike the Salt River, however, the Project area experiences additional challenges in the form of dune breaches and tidal incursions.

Project History: Early history and recent Conservancy involvement in the Project are described extensively in the Final EIR and in the 2013 staff recommendation (Exhibit 3), respectively. The 2013 authorization awarded funds to California Trout, Inc., matched by CDFW funds, to prepare designs for tidal marsh restoration on the EREP. Total funding for planning and design exceeded $1 million. As discussed in those documents, the Project area was marsh reclaimed in the late nineteenth to early twentieth century for agricultural production by Joseph Russ and others. The 1,153-acre Connick Ranch was purchased by TWC in 2008 to enhance habitat and provide recreational and educational opportunities for children. The Palco Property was subsequently acquired in a series of transactions and consolidated into the EREP. Extensive enhancement

[2] The tidal prism is the quantity of water that flows in and out of an area with changes in tides.

planning amongst various stakeholders and TWC ensued from 2009 to 2015, at which time the Coastal Conservancy agreed to serve as lead agency under CEQA.

The Coastal Conservancy issued the original Notice of Preparation of an environmental impact report (NOP) for the original version of the project on December 17, 2014. In August 2015, adjacent property owners, primarily Russ family members, requested that the project scope extend beyond the EREP to include approximately 600 acres of adjacent properties to the south owned by Russ. In response, the project was revised to include and accommodate those adjacent properties with project components similar to those originally proposed for the EREP. CalTrout, the 2013 grantee, secured from the Coastal Conservancy two grant augmentations totaling $220,000 to extend the project footprint to include the Russ properties, as requested by the Russes. These augmentations included funding to conduct additional topographic surveys, hydrologic modeling, analysis of dune morphology and processes, and biological resources investigations, and to include the Russ properties in CEQA analyses and permit preparations. To address the addition of these properties into the project area, the Coastal Conservancy prepared a revised NOP to allow for additional public and agency comment on the preparation of an EIR for the revised proposed project. The revised NOP was circulated between November 13, 2015 and December 18, 2015. Comments provided in a series of meetings with property owners and agency personnel were considered and incorporated into the project and reflected in the Draft EIR. The Draft EIR was submitted to the State Clearinghouse September 8, 2016, and a public comment meeting was held at the Fortuna River Lodge on September 28, 2016. Minor comments were received at the meeting, and extensive comments, most from the Russes or their consultants, were received in writing between October 21 and the close of the public comment period on October 24, 2016.

The comments focused on three areas: hydrology, operations (how the system will be operated) and public access. The critical tone of the comments from the Russes, some of whom were then formally project applicants, prompted Conservancy staff to take several steps. First, staff drafted thorough responses to comments and provided them to the Russes. These responses included four master responses on the topics of: Coordination and Project Development; the Drainage Easement; Reclamation Districts and Operation Needs; and Public Access and Recreation. This unusual step enabled the commenters to determine prior to the release of the Final EIR whether or not their concerns and questions were adequately addressed. Second, the Conservancy recirculated the Draft EIR (RDEIR) in order to include a revised project description that addressed many of the comments. The RDEIR contained a revised project description, two new alternatives that diminished environmental impacts while still meeting the project goals and objectives, and included the draft Adaptive Management Plan (AMP), Water Level Management Plan (WLMP) and the 2013 draft Public Access Plan. In summary these steps and materials were intended to address the comments and concerns about the Draft EIR, and the 2016 Proposed Project in general, so that the Russes would remain as co-applicants for the 2016 Proposed Project.

The RDEIR was filed with the Office of Planning and Research December 5, 2016. During the public comment period, Conservancy staff with the Project Team made repeated and concerted efforts to engage with the Russes and determine their applicant status and general position regarding the 2016 Proposed Project. No reply from the Russes was forthcoming. The review period closed January 19, 2017. Between January 18-19, the Conservancy received comment letters from Harville Ranch, LLC, Lane Russ representing RR&T, and the L.D. O'Rourke Foundation and a joint comment letter from these same individuals and organizations and Jack, Linda and Jay Russ. The more than 130 comments on the RDEIR focused on and largely reiterated concerns about the three key areas of hydrology, operations and public access, as well as the alleged inadequacy of the RDEIR. The joint letter also raised new concerns about the revised alternatives analysis, transportation, energy, greenhouse gas impacts and tribal cultural resource impacts.

Collectively, the comments demonstrated that the Russ' concerns about the 2016 Proposed Project remained unabated. As their joint letter stated "the RDEIR exacerbates the problems in the DEIR previously identified by the Commenters and also introduces new deficiencies." The joint letter requested that the Final EIR clarify that RR&T and the Russes are no longer project applicants or proponents of the project. Due to the extensive nature of the Russ' concerns about the 2016 Proposed Project, and the Project Team's inability to make any measurable progress addressing such concerns, Conservancy staff developed this staff recommendation advising the Conservancy to limit activities to the EREP by adopting Alternative 4.

The Final EIR, comprising the January 2017 responses to comments as well as the DEIR and RDEIR, has been circulated in compliance with CEQA.

PROJECT FINANCING

US Fish and Wildlife Service NCWC Grant	$950,000
Department of Fish and Wildlife (requested)	*$2,000,000*
Wildlife Conservation Board (requested)	*$3,000,000*
NOAA Coastal Resiliency (requested)	*$920,788*
Estimated Total Project Budget	**$8,000,000**
This Authorization Total	**$950,000**

The construction funds proposed to be authorized for disbursement comprise an award of $950,000 in reimbursable grant funds to the Coastal Conservancy from the U.S. Fish and Wildlife Service National Coastal Wetlands Conservation Grant Program. This fund source includes an additional $50,000 for Conservancy staff costs. The NCWC grants are limited to implementation on the EREP.

The estimated construction cost for the Project is approximately $8 million. The funds in italics have been applied for but are not yet secured. Moreover, TWC cannot disburse USFWS NCWC

funds until $457,501 of state match indicated in the original NCWC grant application is secured for the Project. Nonetheless, certification of the EIR and completion of the CEQA process is a prerequisite to seeking additional funding and completing permit applications for the Project. The Coastal Conservancy and TWC are working with California Trout and state and federal agency staff to help secure these funds while the CEQA process is reaching its completion and permit applications are being filed. If the additional funds are not obtained, the Project will be implemented in phases until sufficient funding is secured. No USFWS funds will be disbursed until sufficient non-federal match is secured.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The Project will be undertaken pursuant to Chapter 6 of the Conservancy's enabling legislation, Public Resource Code sections 31251-31270, as follows:

Pursuant to section 31251, the Conservancy may award grants to nonprofit organizations in order to relocate improperly designed or located improvements and for other corrective measures that will enhance coastal resources that have suffered loss of natural and scenic values due to natural or human-induced events or incompatible land uses. The Project consists of corrective measures to restore an estuarine area degraded by reclamation and improperly located agriculture and tide gates. The Project will restore hydrologic and estuarine connectivity within the remnant Centerville/Cut-Off Slough system, and restore many acres of salt marsh and freshwater habitat on the EREP property while also preserving and enhancing agriculture by relocating it to areas of the EREP better suited for and more capable of sustaining higher production levels. Implementation activities under this grant will benefit a variety of natural resources within and outside the coastal zone (Pub. Resources Code § 31251.2.), particularly coastal salmon populations of the Eel River that utilize habitat within and outside the Coastal Zone.

Consistent with section 31252, the County of Humboldt's Local Coastal Program includes policies in favor of public action (in particular, the County, working with property owners and state and federal agencies) to resolve resource protection problems in the Eel River area, including the Project site, as described in the "Consistency with Local Coastal Program Policies" section below.

Consistent with section 31253, the amount of funding recommended for the Project is based on the total amount of funding available for coastal resource enhancement projects, the fiscal resources of the applicant and its partners, and the urgency of the Project relative to other eligible coastal resource enhancement projects.

CONSISTENCY WITH CONSERVANCY'S 2013 STRATEGIC PLAN GOALS & OBJECTIVES, AS REVISED JUNE 25, 2015:

Consistent with **Goal 5, Objective B** of the Conservancy's 2013-2018 Strategic Plan, the Project will preserve and enhance coastal watersheds and floodplains by restoring habitat function and hydrologic connectivity within a diked former marsh. The Project will achieve this by restoring 100-acres of historic tidal wetland, 19-acres of historic aquatic slough and stream habitat, and overall enhancement of ecosystem function within the Project area.

Consistent with **Goal 5, Objective E**, the Project will modify a tidegate to restore fish passage to a restored estuarine area following more than 150 years of complete obstruction to migration.

Consistent with **Goal 5, Objective G**, the Project will significantly improve water quality within this basin by eliminating the historic practice of deliberately avulsing Russ Creek onto pastures, a practice that resulted in impaired water quality, increased sediment loads and hydraulic dysfunction within the Project area.

Consistent with **Goal 6, Objective B**, the implementation of this Project will markedly improve drainage and sediment management within the pastures in the Project area, thereby helping ranchers increase productivity while decreasing adverse impacts of their operations on wildlife habitat and water quality.

Consistent with **Goal 7, Objective B**, the Project has already incorporated a site-specific vulnerability assessment crafted in accord with the Coastal Commission's newly adopted Sea Level Rise Guidance Manual and devised project components that address these threats in a way that protects natural resources and provides maximum public benefit.

Consistent with **Goal 7, Objectives D, and F**, the Project is a pilot project that provides resilience to sea level rise and extreme storm events through dune enhancement and drainage networks, and incorporates marsh restoration components that result in carbon sequestration.

Consistent with **Goal 9, Objectives A and B**, the Project includes trails, kayak launches, overlooks, interpretive displays and other minor amenities that expand environmental education opportunities in the region, and improve public understanding, use and stewardship of coastal resources, particularly with respect to the compatible uses of agricultural production and ecosystem restoration.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The 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 Project is consistent with the following state and federal plans and policies concerning restoration of riparian habitat and increasing natural production of the coastal salmon populations that depend upon that habitat for certain life history stages:

    a. The Project is consistent with the recommendations for planning, acquisition and habitat enhancement made in the report Natural Resources of the Eel River Delta, published by the California Department of Fish and Game in November 1974. Among other things, the report recommended higher levels of protection for the Delta's natural resources, restoration and floodplain enhancement efforts and

acquisitions that will help advance ecosystem restoration –though they didn't use that expression—as a "highest and best use" of the Delta. This specific site is identified in that plan as the highest priority for acquisition and enhancement within the entire Eel River Delta.

b. While it doesn't specifically address the Eel Delta, the *Steelhead Restoration and Management Plan for California* of February 1996 features the Eel River and underscores the importance of reversing watershed disturbance through restoration activities. Focusing primarily on the introduction of Pikeminnow to the Eel River, the study's author could have noted that juvenile salmonids are safer from predation in the Delta because Pikeminnow cannot tolerate the high salinity of the Delta during summer months. Therefore, the Delta provides a refuge for juvenile salmonids, and other species, in an altered system. Thus, the Project specifically addresses the issues raised in the Steelhead Plan through alternative and likely more feasible and successful means than the chemical treatments recommended in the plan. Finally, and thematically, the plan advises that "(h)abitat improvement projects should be focused on the many areas throughout the State where steelhead habitat is severely degraded and restoration work is sorely needed." This is certainly true in the highly reclaimed Delta where opportunities abound to support the growth and survival of juvenile salmonids and other marine and freshwater species.

c. More recently, and more specifically, the Project is consistent with the California Fish and Game issued *Recovery Strategy For California Coho Salmon* of February 2004 in that the highest priority recommendation of that plan relating to the Eel Delta is to "(e)ncourage the Salt River Local Implementation Plan to incorporate coho salmon-friendly measures, in cooperation with the agencies." Centerville Slough is the largest historic tributary to the Salt River, and its enhancement advances the goals and objectives of the Recovery Strategy within the Eel Delta. TWC and its partners have developed the Project in a way that benefits from experiences gained at the nearby Salt River Ecosystem Restoration Project, and is likely to leverage those ecological benefits significantly. Additionally, the plan recommends that "(i)n cooperation with agencies and landowners, plan to re-establish estuarine function, restore and maintain historical tidal areas, backwater channels and salt marsh" (ER-HU-12 pg. 8.27).

d. The Project is consistent with the *Final Recovery Plan for the Southern Oregon/Northern California Coast Evolutionarily Significant Unit of Coho Salmon* (*Oncorhynchus kisutch)* (National Marine Fisheries Service 2014). That report highlights the statewide importance of the Eel River population of Coho salmon and adds that "(t)he tributaries and estuary located within this population may serve as essential non-natal rearing habitats for all populations in the Eel River watershed" (SONCC 26-7). The report states that "(i)n the estuary, salt marsh was drained and riparian vegetation cleared to convert tidelands to pasture...Tideland reclamation and the construction of dikes and levees have changed the function of the estuary considerably. Slough and creek channels that once meandered throughout the delta

are confined by levees, sufficiently slowing flow to a point that many have become filled with sediment. Remnant slough channels are visible throughout the delta. The estuary and tidal prism have been reduced by over half of their original size (CDFG 2010b)." (SONCC p. 26-4). Top recommendations from the report include: 1) setback or remove dykes and levees; 2) restore salt marsh and tidal sloughs, and; 3) reconnect tidal channels and wetlands.

e. The Project is consistent with the California Water Action Plan, a collaborative effort of the California Natural Resources Agency, the California Environmental Protection Agency, and the California Department of Food and Agriculture. This plan was developed to meet three broad objectives: more reliable water supplies, the restoration of species and habitat, and a more resilient, sustainably managed water resources system. It lays out the state's challenges, goals and actions needed to put California's water resources on a safer, more sustainable path. The plan identifies ten overarching strategies to protect our resources, include two particular to this Project that the Conservancy can help implement: 4) *Protect and restore important ecosystems (restore coastal watersheds and strategic coastal estuaries to restore ecological health and nature system connectivity to benefit local water systems and help defend against sea level rise, eliminate barriers to fish migration)* and 7) *Increase flood protection (encourage flood projects that plan for climate change and achieve multiple benefits).*

f. The *California State Wildlife Action Plan 2015 Update (SWAP 2015 Update)* points out that the North Coast Klamath Mountain Province is known for its extensive river systems and the anadromous fish populations they support. These rivers, according to CDFW, support one-third of the state's Chinook salmon, most of the state's coho salmon and steelhead, and all of the coastal cutthroat trout. These populations have suffered significant declines. That is why one of the fourteen conservation targets for the Province is the "native aquatic species assemblages/communities of coastal watersheds." Restoring lost rearing habitat in former salt marsh is a proven strategy for protecting and enhancing populations of these native aquatic species assemblages, as well as a host of other aquatic and terrestrial species.

g. Finally, *California @ 50 Million: The Environmental Goals and Policy Report (2013 Draft)* Key Action #3 for the "Preserve and Steward State Lands and Natural Resources" section calls for building resilience in natural systems and specifically points out that wetlands "provide important carbon sequestration opportunities for the state."

3. **Support of the public:** The Project is supported by Senator Mike McGuire, Assemblyman Jim Wood, the County of Humboldt, the U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, California Department of Fish and Wildlife, North Coast Regional Water Quality Control Board, Pacific Birds Partnership, the Pacific Marine Estuarine Partnership, the California Fish Passage Forum, California Trout, Trout Unlimited,

the landowner, their lessees and others. Some of the support letters received over the past year, some in relation to the solicitation of funds from other agencies, are included (Exhibit 6).

4. **Location:** The Project is located at the mouth of the Eel River, near Ferndale, in Humboldt County.

5. **Need:** Approximately 85 percent of the tidal marsh in Humboldt Bay and the Eel River Delta has been lost since the Gold Rush, leading to dramatic losses of fish and wildlife, decreased water quality and increased turbidity in the Bay, and changes to physical processes as the size of the Estuary shrank, increasing the need for dredging and the local hazards of flooding. The need for restoration of tidal marsh in Humboldt Bay and the Eel River Delta in order to aid in the recovery of at-risk species, and improve water quality and the physical health of the area, is well-recognized among scientists and resource managers.

6. **Greater-than-local interest:** Restoration of this area is of national significance. It will result in up to 100 acres of tidal wetland restoration and extensive dune enhancement that will provide benefits to a large number of species, including anadromous salmonids, migratory waterfowl and shorebirds, and aid in the recovery of several threatened or endangered species. In addition, the Project will improve flood management for agricultural operations in the area and provide regional recreational opportunities.

   Sea level rise vulnerability: Due to their location, all tidal wetland restoration projects can be vulnerable to sea-level rise impacts. This Project site is somewhat protected from such effects due to the fact that the reintroduction of tidal prism is muted and occurring within a closed cell. Nonetheless, as a low-lying coastal floodplain, the area is highly vulnerable. Conservancy staff conducted a thorough analysis of the Project using the Coastal Commission's new Sea Level Rise Policy Guidance, adopted August 12, 2015. This effort helped determine how sea level rise may impact the Project site from flooding and erosion; identified the longevity and durability of each Project component; and evaluated the impacts of the Project on agricultural resources, coastal habitats, and public access in light of sea level rise.

   This analysis found that the Project area is predicted to be affected by sea level rise sooner and more extensively than other areas in the Humboldt region and on the north coast due to subsidence in the area. According to the "Humboldt Bay: Sea Level Rise Hydrodynamic Modeling, and Inundation Vulnerability Mapping" report by Northern Hydrology and Engineering (2015), the closest site to the Project area (Hookton Slough in southern Humboldt Bay) has the highest rate of subsidence (VLM of -3.56 mm/yr) and thus the highest relative sea-level rise rate, 5.84 mm/yr, relative to other study sites in the Humboldt region and north coast.

   The Project is designed to protect coastal resources from sea level rise and address the area's vulnerability to sea level rise. The Project incorporates a number of elements designed to increase the lifespan of the area, including: 1) elevated berms with gradually sloping side-slopes capable of promoting vegetative shifts across the landscape, 2) dune enhancements intended to protect the area from wave overwash, and 3) sediment management techniques that provide elevation increases to accommodate shifting habitat types and agricultural productivity in the context of sea level rise. Although high sea level rise rates are predicted,

the Eel Delta is an excellent place to accommodate sea level rise, due to the fact that the sedimentation and sediment accumulation rates are very high –second only to the Yangtze River. Once the marsh plain of a restored wetland is colonized by vegetation, the marsh plain becomes an efficient sediment traps, contributing to aggradation and elevation increases. With the exception of the dunes, the longevity of the Project is expected to exceed fifty years due in large part because the Project is within a closed and muted tidal system. Due to erosion, the dune system is unlikely to persist that long, though it will likely accommodate sea level rise for at least twenty years.

Additional Criteria

7. **Urgency:** Failing infrastructure, wave overwash events, aggraded drainage channels and other problems are rendering much of the Project area unsuitable for farming, and inadequate for habitat enhancement. The Project is needed urgently to protect agricultural resources while also enhancing habitat to a semblance of its historic abundance.
8. **Resolution of more than one issue**: The restoration of wetlands combined with enhancements to and increased protection of agricultural areas in the Coastal Zone provides an excellent opportunity to protect and enhance two of the most important natural resource values in the North Coast.
9. **Leverage**: See the "Project Financing" section above.
11. **Innovation**: The Project provides an excellent opportunity to restore ecological function and agricultural productivity within a muted system, thereby providing significant improvements to habitat function, while also honoring and maintaining the existing agricultural utility and infrastructure of the site, and area that has provided significant economic and social benefit for more than a century.
13. **Realization of prior Conservancy goals**: The Project builds on the Conservancy's participation in the development of the *Salt River Ecosystem Restoration Project*, a more than 25-year effort to restore ecosystem function and agricultural productivity to the Ferndale Bottom region of the Eel River Delta, near Ferndale. Centerville Slough was once the Salt River's largest tributary, and will be again following Project completion. Certification of this EIR and award of funds will enable the Conservancy to begin implementing a Conservancy-developed plan and project as enunciated in a Conservancy-led EIR.
15. **Cooperation**: The Conservancy has helped assemble a team of agency personnel, non-governmental organization staff and a private landowner and its lessee intent on developing and advancing the Project. Although debate with Russ continues over detailed aspects of the Project, the Project enjoys the foundation of more than five years of preparation, planning, negotiations and design work.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The County of Humboldt Local Coastal Program (LCP) Eel River Area Plan (ERAP) was certified by the Coastal Commission in 1982 and last updated in 1995. The ERAP outlines numerous policies pertaining to the preservation and restoration of sensitive coastal habitat, but it

also includes strong provisions in support of agriculture. The Project is consistent with these policies in that it will restore coastal habitat and enhance agriculture. Further, all of these LCP policies will influence the preparation of the Project's final designs which will address agricultural preservation and habitat restoration.

There is significant fear within Ferndale's agricultural community that enhancement efforts at the EREP will result in wholesale conversion of prime agricultural lands to non-agricultural uses. However, the Project has been designed to protect agricultural lands (and will continue to do so as final designs are prepared) consistent with the Coastal Act and the zoning of the Project site. Section 30242 of the Coastal Act limits conversion of agricultural land to non-agricultural uses. (Pub. Resources Code § 30242.) Conversion to non-agricultural uses is allowed only where agriculture is either infeasible, or where such conversion will preserve prime agriculture elsewhere and be compatible with continued agricultural use on surrounding lands. As discussed extensively in the DEIR, RDEIR and Final EIR, the Project will convert a small percentage of the agricultural land in the Project area while protecting, preserving and enhancing productivity on non-prime and prime agricultural land elsewhere in the Project area consistent with Section 30242. Ultimately, Section 30242 controls the overall design approach of the Project.

Moreover, the Project area is located primarily in transitional agricultural lands, where development and conversion is even more strongly restricted in favor of maintaining prime agricultural productivity. Thus, per the guidelines of ERAP Section 3.41 C, it is essential that the Project adhere to the principal uses in agriculture exclusive designation, notably the production of food, fiber or plants.

With regard to the protection and enhancement of natural resources, Section 3.34 B states that management for watershed and fish and wildlife is a compatible use with agriculture. The Project provides for management of the area for fish and wildlife as a compatible use, in addition to management for agriculture.

In addition to the above guidelines, it is worthwhile noting the following policies that are highly compatible with the Project. Policy 3.41: "Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values"; Policy 3.41 1.a.(2): "The County shall continue to pursue opportunities to restore or enhance, if possible, in-stream flows"; Policy 3.41 F.6.a: "long-term protection of riparian vegetation . . . should be provided. . . . To achieve these objectives, the County should work with property owners and affected State and Federal agencies"; Policy 3.41 G.7: "Natural drainage courses . . . shall be retained and protected from development which would impede the natural drainage pattern or have a significant adverse effect on water quality or wildlife habitat."

In all respects, the Project will adhere to the LCP.

COMPLIANCE WITH CEQA:

In order to comply with the California Environmental Quality Act (CEQA) the Conservancy prepared the *Final Environmental Impact Report for the Eel River Estuary and Centerville Slough Enhancement Project, January 2017* (Final EIR). This environmental document is a project-level environmental impact report that examines the environmental impacts resulting

from the construction, development and ultimate operation of the 2016 Proposed Project and five alternatives.

Since both the DEIR and RDEIR retained the 2016 Proposed Project as described, specifically in the inclusion of Russ property within the project area, so too, does the Final EIR. However, the RDEIR included two new alternatives that: a) were limited to the EREP, and; b) resulted in fewer benefits and fewer adverse impacts. In its analysis, staff also determined that Alternative 4: 1) limited project activities to the EREP where TWC remained a cooperative landowner; 2) avoided any conflict with the Drainage Easement, a legal instrument establishing certain rights for water management by the Russes across EREP, and 3) modestly reduced environmental impacts further than the 2016 Proposed Project. Therefore, Alternative 4 is recommended to the Conservancy for approval instead of the 2016 Proposed Project.

The Final EIR is attached as Exhibit 4, and the Adaptive Management Plan and Mitigation Monitoring and Reporting Plan are attached as Exhibit 5.

The material that constitutes the administrative record is located at the offices of the State Coastal Conservancy, 1515 Clay Street, 10th floor, Oakland, California. The custodian of the record is project manager Michael Bowen.

Significant Effects Of The Project (Alternative 4) Reduced To Less Than Significant Levels by Mitigation

The Final EIR identifies thirteen potentially significant effects of the Project in the categories of Air Quality, Biological Resources, Cultural Resources, Geology and Soils, and Hydrology and Water Quality. The Final EIR also finds that in nearly each of the thirteen categories the potentially significant effects are reduced under Alternative 4 relative to the 2016 Proposed Project. While it is also true that the environmental benefits in some categories decline under Alternative 4 relative to the 2016 Proposed Project, the benefits of Alternative 4 remain substantially comparable to the 2016 Proposed Project.

To reduce impacts to less than significant the Final EIR identifies the following mitigation measures, summarized in Exhibit 5.

Air Quality

The EIR concludes that, unless controlled, fugitive dust emissions during construction of the Project could be a significant impact. Therefore, Mitigation Measure AQ-1 provides dust control measures during construction that will reduce this potential air quality impact to less-than-significant.

Agricultural Resources

Due to the importance of agriculture to the local economy, the EIR extensively analyzed the Project's potential to have local and regional adverse impacts to Agricultural Resources. The EIR concluded that impacts are considerable for the 2016 Proposed Project, but not potentially significant, and reduced by at least 25 acres under Alternative 4. Alternative 4 reduces the conversion levels of agricultural land by twenty-five acres, including the reduction of conversion of prime agricultural land from approximately 14-acres to nine-acres due to the reduced footprint of Centerville Slough. In both instances, impacts were found to be less than significant due to design constraints and a net increase in overall agricultural productivity and utility within the

Project footprint. This is highlighted, for example, in the Project intent to offset low productivity pasture lost to inundation by improving pasture at higher and less saline parts of the Project area where Russ Creek currently and routinely avulses at the expense of predictable and productive pasture. In order to ensure that this projection holds true, a Pasture Monitoring Plan will validate or dispel the Final EIR findings in this area. In the event that anticipated agricultural benefits do not materialize as predicted, the Final EIR provides a means of offsetting unforeseen impacts should Project benefits fall short. This is achieved through the deposit of funds into an escrow account for transfer to a suitable non-profit or special district capable of and willing to administer the funds in order to compensate for lost agricultural productivity, should EIR projections not be achieved.

Biological Resources

The EIR concludes that despite the Project's avoidance or minimization of impacts to special status wildlife and plant species through planning and design measures, construction and operation of the Project could directly or indirectly impact populations of Tidewater Gobies, raptors, migratory birds, Western Snowy Plover, Norther Red-legged Frog, salmonids, Longfin smelt and collectively a variety of other special-status plant species and their habitats. Furthermore, implementation of mitigation measures to enhance Snowy Plover habitat could impact sensitive dune plant species such as Beach Layia.

Avoidance, minimization and mitigation for salmonids, Longfin smelt, Tidewater Goby and Red legged Frog include but are not limited to temporal phasing of construction, relocation of sensitive species out of construction areas, prudent dewatering techniques that protect aquatic species and oversight by qualified biologists. Through such means Mitigation Measures BIO-1a, BIO-1d and Bio-1e reduce potential impacts to a less than significant level.

Potential impacts to avian species, including nesting passerine birds, avian species of special concern and Snowy Plover, are addressed through pre-construction surveys and construction buffers of three feet for common birds, 300-feet for sensitive species and 500-feet for raptors. Dune enhancement at a ratio of 1.1:1 via removal of European Beach Grass to mitigate for dune enhancement activities within the Project area reduce impacts to Snowy Plover to a less than significant level. See Mitigation Measures BIO-1b and BIO-1c.

As for potential impacts to plants, surveys, avoidance and physical protection measures for Special Status or Sensitive-Listed Plant Species, in combination with pre-construction seed collection, replanting efforts and, where necessary, compensatory mitigation plans, reduce potential impacts through Mitigation Measures BIO-2aand BIO-2b to less than significant levels.

The EIR finds that four sensitive natural vegetation communities were identified within the Project area, and that these would be temporarily impacted by Project activities. Mitigation Measure BIO-3a provides that through avoidance and reestablishment, temporary impacts to Dune Mat will be reduced to a less than significant level, and that community will increase in size as a result of the Project.

Sensitive Listed Habitat types will be enhanced, and temporary impacts reduced to less than significant levels, via invasive species control measures described in Mitigation Measure BIO-3b.

The EIR finds that the Project design includes filling of wetlands and reestablishment of new wetlands. No net loss in quality or quantity of wetlands is expected, but short term impacts will be reduced to less than significant levels under Mitigation Measure BIO-4 through demarcation, contracting requirements and contractor training, supervision of work by a qualified biologist and if necessary compensation for any net loss of wetlands.

In summary, the Biological Resources section of the EIR shows that the ecological benefits of the Project are extensive, and that the short term potential impacts are sufficiently addressed and reduced to less than significant levels by means of mitigation measures.

Cultural Resources

An extensive and thorough cultural resources investigation concluded that no cultural resources, paleontological resources, or human remains were identified or likely to be found within or immediately adjacent to the Project site. The potential disturbance of undiscovered cultural resources paleontological resources, or human remains is addressed in Mitigation Measures CR-1, 2 and 3, which require work stoppage and notification procedures in the event of such discovery. The potential significant impacts are reduced to a less than significant level.

Geology and Soils

The Project involves heavy construction near a triple juncture zone and is located on unstable and/or expansive soils. Therefore, the Project has the potential for significant impacts through exposing people or structures to seismic events including liquefaction, to result in substantial soil erosion, and to be developed on an unstable geologic unit or soil that could result in liquefaction, lateral spreading, subsidence or collapse and create a risk to life or property. These potential impacts are addressed in Mitigation Measures GEO-1, 2 and 3 by requiring adherence to the recommendations presented in the geotechnical report (LACO 2016), through development of a Stormwater Pollution Prevention Plan (SWPPP) specific to the proposed grading and earthmoving activities and through the implementation of erosion and water quality control measures, including water quality monitoring and adaptive management efforts. Overall, potentially significant impacts to Geology and Soils are reduced to less than significant levels.

Hydrology and Water Quality

The dynamic hydrologic environment of the Project area, in combination with the extensive construction proposed for the area, guarantee the potential for significant impacts to Hydrology and Water Quality, particularly in the areas of drainage patterns, erosion and siltation. These impacts will be addressed through various measures including: HWQ-1a, the management of construction storm water runoff via the development of and adherence to an adequate and approved Construction Storm Water Pollution Prevention Plan (SWPPP); HWQ-1b, the training of contractors in the adherence to the SWPPP; HWQ-1c, the implementation of various in-stream erosion and water quality control measures such as cofferdams, silt fences, etc.; HWQ-3, the long term erosion monitoring of on-site channels to screen for excessive erosion and degraded water quality and the accompanying adoption of the Adaptive Management Plan that is specifically designed to accommodate the dynamic, erosive, and unpredictable conditions within the Project area over time in a continuing effort to improve Hydrology and Water Quality resources within and outside of the Project area. Staff notes that the design intent in combination with mitigation measures such as seasonal operation of the tidegates will maximize flood storage capacity of the Project area resulting in less than significant findings in the area of Hydrology

and Water Quality, though at the expense of maximizing available aquatic habitat for increased biological benefit.

The Project Alternatives

Meetings amongst property owners with land adjacent to the EREP to discuss land management and improvements began in 2009-2011. During the preliminary modeling and feasibility assessment phase of the project, various configurations were assessed, including some on adjacent lands. Despite those discussions, and in large part due to an ongoing dispute over public access, a proposed project limited to TWC property was developed and a Notice of Preparation was circulated in December 2014. At the first scoping meeting, the National Oceanic and Atmospheric Administration requested that the Conservancy analyze an alternative that contemplated removal of the Cut-Off Slough tidegate and full tidal exchange into the project area.

Subsequently, and in recognition of the agricultural benefits afforded by the project components, adjacent landowners held their concerns about public access in abeyance, requested participation in a broader project, and sought funding from the Conservancy to support that participation (Exhibit 6). The Conservancy augmented its grant by $240,000, and the proposed project was revised and re-scoped in 2015 to include adjacent properties. Thus, the alternatives analyzed in the Draft EIR included the 2016 Proposed Project, the No Project Alternative, the 2014 (original) NOP Alternative and the Full Tidal Exchange Alternative.

The public comment period for the Draft EIR closed October 24, 2016. Public comment on the Draft EIR focused on three key areas: hydrology, infrastructure operations ("operations") and public access. Consequently, the Conservancy recirculated the Draft EIR on December 5, 2016 with a revised project description, responses to comments, an Adaptive Management Plan, a Water Level Management Plan, and two new alternatives that limited proposed project activities to the EREP and reduced overall environmental impacts. The public comment period for the recirculated Draft EIR (RDEIR) closed January 19, 2017. Public comments again focused on the same three key areas, as well as new concerns about greenhouse gas emissions, utilities, traffic and tribal cultural resources. Responses were incorporated into the Final EIR to accompany the initial response to comments on the Draft EIR. Thus, the alternatives analyzed in the Final EIR include the 2016 Proposed Project, the No Project Alternative, the 2014 (original) NOP Alternative, the Full Tidal Exchange Alternative, Alternative 4, and Alternative 5. Each is described, below, with summary analysis.

No Project Alternative

Under the No Project Alternative, no modifications to the area will occur. The alternative maintains the existing levee and tidegate conditions and continues to preclude tidal exchange within the area with no provisions for sea level rise adaptation, sediment management, drainage improvement or ecosystem restoration. The site will continue to be managed to maximize agricultural potential and flood control. There is no improvement proposed for internal channels, culverts, tidegates, dune or levee improvements under the No Project Alternative.

The No Project Alternative will have similar impacts to the 2016 Proposed Project for Public Services, Recreation, and Transportation resource categories; and lesser impacts than the 2016 Proposed Project for all other resource categories with the exception of Agricultural Resources, Biological Resources, and Hydrology and Water Quality as over time –perhaps rapidly–these resources will continue to degrade.

2014 Original Notice of Preparation Alternative

The 2014 Original Notice Of Preparation (NOP) provides a detailed description of the proposed elements for this alternative. The enhancement features associated with the 2014 Original NOP Alternative, which is restricted to the EREP, or TWC property, are similar to the 2016 Proposed Project. Most impact categories analyzed under CEQA are similar or lesser to the 2016 Proposed Project, with a few exceptions. For this reason, the 2014 Original NOP Project was identified in the EIR as the environmentally superior alternative.

In the key categories of Biological Resources, Cultural Resources, Greenhouse Gas Emissions, and Hydrology and Water Quality, the 2014 Original NOP Alternative would have slightly lesser impact levels than the 2016 Proposed Project, and very similar impacts to Alternative 4. These lesser impacts are primarily associated with fewer construction activities than the 2016 Proposed Project. Notably, however, in the category of Hydrology and Water Quality, the 2016 Proposed Project offers greater benefit to the surrounding area.

Biological Resource, Cultural Resources and Greenhouse Gas impacts associated with this alternative are reduced relative to the 2016 Proposed Project as construction-related activity diminishes. All impacts would fall into the less than significant category. As with the 2016 Proposed Project, minus the Russ land south of the EREP, this alternative would also provide a net benefit to terrestrial, avian and aquatic species by the introduction of a muted tidal exchange into the EREP and recreates historic on- and off-channel ponds and the associated wetland habitats within the historic back-dune Centerville Slough channel system.

As with the 2016 Proposed Project, Hydrology and Water Quality impacts were determined to be less than significant with implementation of mitigation measures (reference Final EIR Section 3.9.5). However, the improvements to Centerville Slough and Russ Creek would be limited to EREP property only; thus, poor drainage and unchecked wave over wash would still occur on Russ property. Therefore, although the hydrology and water quality impacts are anticipated to be similar, the resulting hydrologic deterioration of agricultural pastures on Russ property under this scenario is expected to be more severe. For these reasons, the hydrology and water quality impacts associated with this alternative are anticipated to be greater than with the 2016 Proposed Project.

Full Tidal Exchange Alternative

Although this alternative has generally fewer impacts in most categories, analysis demonstrated that its impacts upon agricultural resources are severe, involving the inundation of nearly 2,000-acres of pasture and permanent conversion of that agricultural resource to tidal marsh. In so doing, this alternative cannot meet project objectives of protecting and enhancing agricultural resources.

Alternative 4

Alternative 4 includes many of the same components from the 2014 NOP Alternative, as well as components that were further improved upon in the 2016 Proposed Project. These are depicted in Exhibit 1. Consequently, the analysis provided above for the 2014 NOP Alternative holds true for Alternative 4. Generally speaking, fewer construction related activities on a smaller footprint equate to lesser potentially significant impacts for this Alternative. The key differences between Alternative 4 and the 2016 Proposed Project are as follows:

1. This alternative is limited to TWC's EREP property, and does not include the adjacent properties and proposed actions there, such as re-routing of Shaw Creek/Creamery Ditch, construction of a setback berm around the 200-acre Angels' Camp and other features;
2. Centerville Slough will not be routed into the Inner Marsh, but will retain its historic and current alignment to the north into Cut-Off Slough. Therefore, seasonally varied muted tidal exchange will be prevented from entering Centerville Slough, Western Drainage or Angels Camp. Accordingly, tidal prism and exchange in the southern reaches of Centerville Slough will be minimal;
3. Centerville Slough will be re-established upstream of the existing bridge crossing (widened to 50- to 75-feet) along its current (historic) alignment and terminated somewhat north of EREP/Russ property boundary to provide additional off-channel aquatic habitat and provide the potential for future drainage connection to the south from adjacent properties as envisioned in the 2016 Proposed Project.
4. No changes to existing function or infrastructure cited in the Drainage Easement between TWC and the Russes would occur or result in conflict with the terms of that existing legal instrument.

The alternatives chapter of the RDEIR describes the other differences and components of this alternative.

In nearly every category, environmental impacts associated with this alternative will be modestly lower than with the 2016 Proposed Project.

Agricultural Resources

Alternative 4 would result in approximately 25 fewer acres of agricultural land experiencing conversion or alteration, including the reduction of the conversion of prime agricultural land from fourteen to nine acres. This reduction by 5-acres of impacts to prime agricultural land is due the shortened reach of Centerville Slough towards the south of the Project area where prime agricultural lands are located. The reduction of non-prime agricultural land conversion from 120-acres to 100-acres is due to less overall inundation from the reintroduction of tidal exchange. The same increases in productivity throughout the area, however, are anticipated, and due to be monitored and documented via the proposed Monitoring Measure AR-1 (Exhibit 5).

Overall, Alternative 4 (the Project) will have fewer impacts to Agricultural Resources than the 2016 Proposed Project for three key reasons: 1) Seasonally adjusted muted tidal exchange is limited to the Inner Marsh, so less area (approximately 20 acres) is inundated and converted to non-agricultural uses; 2) Centerville Slough excavation terminates further north, so less pasture (prime agricultural land in that location) is impacted by channel construction, and; 3) Most other project features such as drainage improvements and sediment management activities are retained, so overall productivity increases are commensurate with the 2016 Proposed Project. Accordingly, Alternative 4 will have commensurate benefits to the 2016 Proposed Project, but fewer impacts to Agricultural Resources than the 2016 Proposed Project.

Air Quality

Alternative 4 will have fewer impacts to Air Quality than the 2016 Proposed Project simply because less construction will translate directly to fewer construction-related impacts to Air Quality.

Biological Resources

Biological resource, cultural resource and greenhouse gas impacts associated with this alternative are reduced relative to the 2016 Proposed Project as construction-related activity diminishes. All impacts will fall into the less than significant category. This alternative will also avoid potentially significant impacts to biological resources by avoiding the proposed construction of an extensive levee on Russ property, and the redirection of Shaw Creek and Creamery Ditch from their present course and into the Angels Camp area. This alternative will provide a net benefit to terrestrial, avian and aquatic species by the introduction of a muted tidal exchange into the EREP and the recreation of historic on- and off-channel ponds and the associated wetland habitats within the historic back-dune Centerville Slough channel system.

Cultural Resources

Alternative 4 will have fewer potential impacts to Cultural Resources due to a smaller project footprint, less construction activity and thus a lower potential to disturb cultural resources in the area.

Geology and Soils

Regarding Geology, the impacts are reduced slightly under this alternative to the extent that construction related activities are reduced. However, they remain potentially significant, but reduced to a less than significant level with the proposed mitigation measures.

Hydrology and Water Quality

As with the 2016 Proposed Project, Hydrology and water quality impacts were determined to be less than significant with implementation of mitigation measures. However, the improvements to Centerville Slough and Russ Creek will be limited to EREP property only; thus, poor drainage and unchecked wave over wash will still occur on Russ property. Therefore, although the

hydrology and water quality impacts will be similar or slightly lesser, the resulting hydrologic deterioration of agricultural pastures on Russ property under this scenario is expected to continue. For these reasons, the hydrology and water quality impacts associated with this alternative are comparable to the 2016 Proposed Project, but the immediate benefits are fewer.

Nevertheless, this alternative affords maximum flexibility for the future accommodation of additional properties into the design, permitting and implementation phases of the Project. This is particularly true for a southward extension of Centerville Slough onto Russ property to improve drainage from that area, an effort that would ameliorate wave overwash events and provide the opportunity to accommodate sea level rise through construction of a setback berm on the western boundary of Russ property. However, until the Russes actively pursue those additional project components, the benefits of this alternative are commensurately lesser than the 2016 Proposed Project. In other words, absent the extension of the Project onto adjacent properties as the 2016 Proposed Project does, this alternative provides a lower level of long-term protection and resiliency to the overall Project area. In particular, this alternative excludes activities south of the EREP such as dune enhancements, setback berm construction around Angels Camp and a restored Centerville Slough on the Russ property, all of which are intended to protect the agricultural land from future wave over wash events and to provide adequate drainage for future operations. Therefore, this Alternative will have fewer overall benefits to the Project area but lesser or equal impacts compared to the 2016 Proposed Project, and still less than significant impacts.

Alternative 5

Alternative 5 represents most of the same components as the 2016 Proposed Project, but its components are limited to those on the EREP. These are depicted in Exhibit 1. The key differences between Alternative 5 and the 2016 Proposed Project are as follows:

1. This alternative is limited to TWC's EREP property, and does not include the adjacent properties;
2. Centerville Slough would still be routed into the Inner Marsh, and therefore, seasonally varied muted tidal exchange would be allowed to enter Centerville Slough. However, a muted tidal regulator would be needed to separate Western Drainage from Centerville Slough so that tidal exchange and tidal prism would not interfere with drainage from properties to the south;
3. Centerville Slough would be re-established upstream of the existing bridge crossing (widened to 50- to 75-feet) along its current (historic) alignment and terminated north of EREP/Russ property boundary to provide additional off-channel aquatic habitat and provide potential future drainage connection to the south from adjacent properties.

The alternatives chapter of the Final EIR describes the other differences and components of this alternative.

In nearly every category, environmental impacts associated with this alternative are expected to be lower than with the 2016 Proposed Project, and nearly identical to Alternative 4, above. However, benefits of this alternative are also lower than with the 2016 Proposed Project, much as is the case and described more thoroughly under Alternative 4, above. Potentially significant impacts also appear to be modestly greater than Alternative 4 due to the routing of Centerville Slough out of its historic alignment and into the Inner Marsh directly.

With respect to Agricultural Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Hydrology resources, see the discussion previously concerning Alternative 4. Similarly, with respect to biological resources, the biological impacts of less construction are lower, but the inability to connect Centerville Slough to the Angels Camp area, thereby reducing both tidal prism opportunities and diminishing habitat connectivity, reduces the overall biological benefits of this alternative, relative to the 2016 Proposed Project. Nonetheless, the benefits of this alternative are significant, and the impacts are less than significant.

Mitigation Monitoring and Reporting Program

Under CEQA whenever measures are required and adopted in order to mitigate or avoid the significant effects on the environment of an approved project, the agency must also prepare and adopt a mitigation monitoring or reporting program designed to ensure compliance with the required mitigation during project implementation (Public Resources Code Section 21081.6). Staff has prepared a Mitigation Monitoring and Reporting Program, attached as part of Exhibit 5. The proposed Conservancy resolution for this project serves to adopt the program.

Significant Impacts

The Final EIR found that all potentially significant impacts of the Project will be reduced to less-than-significant levels with mitigation measures adopted.

Cumulative Impacts

The Final EIR also evaluates the potential environmental impacts of the Project when considered together with other projects. This analysis found no cumulative impacts; therefore, all cumulative impacts are determined to be less than significant.

Project Benefits

The Project provides the following benefits:

- Improve access to restored aquatic habitats for salmonids and other aquatic dependent species by increasing or creating migratory access between estuarine and inland waters and by restoring overwintering and rearing habitat for juvenile salmonids;
- Improve drainage efficiency and manage sediment loads more effectively using both passive natural processes and active management approaches, while enhancing tidal influences by reestablishing connectivity of Russ Creek to a rehabilitated Centerville Slough;

- Increasing resiliency to sea level rise and reducing salt water influences to pastures, enhancing drainage and establishing avulsion management areas for Russ Creek;
- Enhance tidal processes by restoring tidal prism and improve reliability of tidegate infrastructure to provide adaptability for sea level rise and varied land management;
- Enhance dune formation to increase resiliency to sea level rise;
- Enhance freshwater pond habitat for waterbirds and other native aquatic dependent species;
- Facilitate access for continued passive and active agricultural land management, and nature study opportunities, including installation of two kayak launches and dune nature trail;
- Suppress invasive species; and
- Establish a long-term Adaptive Management Program to promote and sustain the agricultural and ecological viability of the landscape for the future.

The Project offers significantly greater environmental benefit than any of the other alternatives analyzed in the Final EIR, excepting the 2016 Proposed Project. Moreover, the components and environmental impacts of the Project are sufficiently similar to the 2016 Proposed Project that mitigation requirements as identified in the MMRP are identical for the Project, the 2016 Proposed Project and Alternative 5.

Overall, the environmental benefits of the Project as detailed above and in the Final EIR lead staff to recommend that the Conservancy certify the EIR and approve the Project. As discussed above, and in the Final EIR, the environmental impacts of the Project, however considerable, pale in comparison to the risk of doing nothing to remediate the significant deterioration of and risk to the Project area and its environmental components by natural and anthropogenic forces.

Upon Conservancy certification of the Final EIR and approval of the Project, Conservancy staff will file a Notice of Determination with the County of Humboldt Clerk and with the Office of Planning and Research.