

Initial Study/ Proposed Mitigated Negative Declaration

for the

Smith River Water Diversion Replacement Project

June, 2024

Lead Agency

North Coast Regional Water Quality Control Board
5550 Skylane Blvd., Suite A
Santa Rosa, CA 95403
Tel: (707) 576-2468

CEQA Consultant:

**Galea Biological Consulting,
Inc.**
200 Racoon Court
Crescent City, CA 95531

Project Applicant

**Reservation Ranch
Steven Westbrook**
370 Sarina Road
Smith River, CA 95567

PROJECT INFORMATION

1. **Project Title:** Smith River Water Diversion Replacement Project
2. **Lead Agency Name and Address:** North Coast Regional Water Quality Control Board
5550 Skylane Blvd., Suite A
Santa Rosa, CA 95403
3. **Contact Person and Phone Number:** Ryan Bey
(707) 576-2679
Ryan.Bey@waterboards.ca.gov
4. **Project Location:** The project area is located approximately 1.5 miles south of U.S. Highway 101 and approximately 2 miles southwest of the town of Smith River in Del Norte County.
5. **Description of Project:** The Farm is proposing to replace a riparian water diversion which was constructed in 1969. The existing water diversion, would be replaced with a modern, fish friendly intake and underground water conveyance line, approximately 4,500 feet long.
6. **General Plan Designation:** Prime Agricultural
7. **Zoning:** Agricultural Exclusive (AG-40)
8. **Surrounding Land Uses and Setting:** The project area is in the Smith River Estuary. Elevation is approximately 20 feet above sea level. Dominant land uses in the vicinity are agricultural and recreation.
9. **Other Public Agencies Whose Approval May Be Required:**
 - California Department of Fish and Wildlife — Streambed Alteration Agreement
 - U.S. Army Corps of Engineers — Nationwide Permit 14 (Section 404 of the Clean Water Act)
 - Regional Water Quality Control Board — Water Quality Certification (Section 401 of the Clean Water Act)
 - State Lands Commission — State Lands Lease
 - National Marine Fisheries Service — Biological Opinion
 - California Coastal Commission — Coastal Development Permit

TABLE OF CONTENTS

1. Introduction	1
1.1. Purpose of this Document.....	1
1.2. Document Organization	1
2. Project Description	3
2.1. Location.....	3
2.2. Project Purpose and Objectives.....	3
2.3. Project Description	3
2.4. Avoidance of Direct Impacts.....	7
2.5. Required Permit Approvals	8
3. Initial Study Checklist.....	9
3.1. Initial Study Checklist.....	9
3.2. Setting, Impacts, and Mitigation Measures	10
4. Determination	46
5. Report Preparation and References.....	47
5.1. Report Preparation.....	47
5.2. References	47

LIST OF FIGURES

Figure 1. Project Location and Vicinity.....	6
Figure 2. Project Design.....	7
Figure 3. Proposed Conveyance Mainline.....	8
Figure 4. Map showing spatial distribution of pools containing juvenile coho salmon during summer surveys, Smith River Basin, California.....	20
Figure 5. Distribution of various fish species	22
Figure 6. Proposed mitigation area for planting of riparian vegetation	25
Figure 7. Maximum salinity concentration, Summer and Winter.....	35

LIST OF TABLES

Table 1. Project Design Criteria, General Construction Measures, and BMPs	5
Table 2. Required Permit Approvals	8
Table 3. Listing Classification and Date, Recovery Plan Reference, Most Recent Status Review, Status Summary and Limiting Factors for SONCC Coho Salmon.....	18

Table 4. Critical Habitat, Designation Date and Federal Register Citation, and Status Summary for SONCC Coho Salmon.....	19
Table 5. Types of Sites and Essential Physical and Biological Habitat Designated for ESA-Listed SONCC Coho Salmon and Corresponding Species Life History Events.....	19
Table 6. Annotated list of 38 documented fish species occurring in the Smith River.....	21
Table 7. Rower Rowdy Creek Suspended Sediment Concentration.....	36
Table 8. Minimum and Maximum Water Withdrawals from Smith River by month.....	37
Table 9. Typical Construction-Related Noise Levels.....	40

LIST OF APPENDICES

Appendix A Mitigation Monitoring and Reporting Plan

1. INTRODUCTION

1.1. Purpose of this Document

This Initial Study has been prepared pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines (14 California Code of Regulations 1500 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. The North Coast Regional Water Quality Control Board (the “NCRWQCB”) is the Lead Agency under CEQA. Reservation Ranch (now operating under a lease agreement with Alexandre Dairy) has been operating a direct diversion from the main stem of the Smith River since 1969 under a riparian right for parcel number 103-020-074. Prior to 2021, water diverted from the Smith River was pumped through a centrifugal pump into an agricultural ditch which conveyed water to Tillas Slough, where three (3) pumping stations transferred diverted flows to multiple locations on the 1,600-acre Ranch. The total gallons pumped were equivalent to 8,000/min during a period from June through September annually. The pumping of water into Tillas Slough was stopped in 2021 and has permanently been discontinued as agreed to between Reservation Ranch and the North Coast Regional Water Quality Control Board.

Under new management, the Alexandre Dairy, an organic, Regeneratively Certified pasture based dairy producer proposes to continue the diversion of water from the Smith River and comply with regulations associated with the riparian right and conveyance of flow to seasonally irrigate prime agricultural lands on the Ranch. Alexandre Dairy now refers to that Ranch as the Smith River Ranch. A Biological Assessment (BA) was developed to address significant modifications to the diversion and pumping facility to bring it into compliance with multiple State and Federal regulatory requirements, which include the North Coast Regional Water Quality Control Board (401 Permit), the US Army Corps of Engineers (404 permit), the California Coastal Commission (CDP), the California Department of Fish and Wildlife (1600 permit), and the State Lands Commission (lease). The water supply will continue to be used for agricultural use only and will only serve the 355-acre parcel referred to as APN 103-020-74. Pasture irrigation demand is calculated to be 7 gallons per acre per minute (approximately 2,500 gallons per minute) for permanent pasture and will significantly reduce the previous use from the 1969 diversion.

The new diversion will focus on a new intake/ fish friendly screening system to avoid the take of Threatened Southern Oregon/Northern California Coast (SONC) Evolutionary Significant Unit (ESU) Coho Salmon, a smaller pump and motor tied to a system which will allow compressed air to clean the screen and a new underground mainline which will replace the agriculture water conveyance ditch by constructing approximately 4,500 feet of underground mainline to convey water into an existing irrigation mainline which irrigates parcel 103-020-074.

The water supply will irrigate the Ranch’s approximately 355 acres, which make up APN 103-020-074 from May 1st through September 31st annually. Start dates may vary depending on the farm’s annual precipitation, which dictates pump start and stop periods on an annual basis, as this region generally experiences 76 inches of annual rainfall. The major project components include: (1) intake structure with fish friendly screen and self-cleaning system, (2) one to two centrifugal pumps, air compressor unit with tank, and the refurbishing of an electrical panel located in the riparian area upslope of the intake structure which has been in place since 1969, (3) a new underground mainline (app 4,500’) from the intake structure connected to existing

mainline located through a small portion of the riparian area on the levee and a significant portion of the farm's pasture land.

1.2. Document Organization

The remainder of this document is organized into the following sections:

- **Section 2. Project Description** – Describes the proposed project;
- **Section 3. Initial Study Checklist** – Describes the environmental setting and analyzes impacts, with mitigation measures identified for potentially significant impacts;
- **Section 4. Determination** – Presents the NCRWQCB's findings pursuant to CEQA;
- **Section 5. Report Preparation and References** – Identifies the persons responsible for preparation of this document and lists references cited in the document;
- **Appendix A. Mitigation Monitoring and Reporting Plan** – Presents a mitigation monitoring and reporting plan for mitigation measures required to reduce potentially significant impacts to less-than-significant levels.

2. PROJECT DESCRIPTION

2.1. Location

The diversion site on the Smith River is located off Sarina Road approximately 1.5 mile south of Highway 101 and approximately 15 miles north of the city of Crescent City in Del Norte County. The agricultural water supply project will be in unincorporated Del Norte County, California, in Township 18N, Range 1 West, Section 28. The water intake is on the left bank of the Smith River at about river mile 3.8 and latitude 41.913856, longitude -124.171403. The project area encompasses approximately 12 square feet along the banks of the Smith River and extends another approximately 4,500 feet with the installation of a new water conveyance mainline which allows the water to remain completely on the farmed pastures of Del Norte County APN 103-020-074 (Figure 1).

2.2. Project Purpose and Objectives

The proposed project will restore a riparian water right for APN 103-020-074 to irrigate approximately 355 acres of prime agricultural land which is grazed annually for regenerative organic milk production. The purpose of the project is maximize pasture irrigation during the late spring and summer during traditionally dry periods on the coast to allow the harvest of winter feeds (silage and grass hay) and grazing on productive, green pastures which produces high quality pasture based raw dairy by: (1) replacing a functionally obsolete water diversion with a new structure that meets current NMFS standards and regulations and (2) conveying the water by means of a new underground pipeline, minimizing evaporation and groundwater penetration which previously occurred through an open conveyance ditch. The existing diversion was determined to be functionally obsolete by National Marine Fisheries Service in 2020. The overall project objective is to convey water diversion to APN acreage by diverting through a fish friendly screen, allowing long-term irrigation and subsequent harvest of pasture grasses on the designated prime agricultural lands.

2.3. Project Description

Project Design

The Farm proposes the following materials to be used in construction of the diversion and conveyance system: Hendricks stainless steel intake screen, 16-18 inch metal conveyance pipe, centrifugal pump (rated at 3,000 gal/min), air compressor (80-gal air tank for airburst system), a 3-Phase electrical panel, a control panel, a salinity meter (using electrical conductivity), a flow meter, 1.5-inch air burst pipe, couplers and multiple lengths of 16-18" PVC schedule 120 discharge pipe (estimated at 4,500') for conveyance to existing underground irrigation line.

Mechanical systems (pump, motor, controls, airburst) and an electrical panel used in this project will be sited on an existing wooden platform at the diversion location. The platform will be decked with ¼ steel plate for mounting mechanical and electrical equipment for the diversion.

For conveyance piping, a small backhoe will be needed to dig the trench. Pump discharge will be conveyed through a 16-18" 120 PSI PVC pipe. The Farm proposes to dig a trench approximately 48" deep and 4,500 feet long to connect with the farms existing irrigation mainline which feeds APN 103-020-074 (Figure 3). The path of least disturbance and distance will be assessed for wetland and cultural resources to place the conveyance pipe over the levee (the

small area where riparian vegetation is located) from the pump and into the farmed pastures on the northwest side of the levee. The placement of the conveyance pipe will be a temporary disturbance of farmed pasture grasses and invasive blackberry which occupies the proposed ditch alignment. When the trench is covered, grasses and blackberry will recolonize the disturbed ground of the levee. Within the Farm's pastures, pasture grass will recolonize the disturbed area quickly. No trees or native brush will be removed.

A small boom truck will be required to set the intake pipe and diversion screen. It is likely this piece of the diversion system will be removed annually to accommodate higher river flows and place less stress on the intake system which will not be in operation. As currently proposed, only grass which has grown into the gravel road will be disturbed during placement of the screen from the boom truck tires. There is no proposed disturbance of any riparian vegetation at the intake location or at the existing wooden platform where the pumping system will be located. All willows, alders, maple trees which occupy the area around the site will be protected.

Construction Methods

The Farm proposes the following materials to be used in construction of the diversion: Hendricks stainless steel intake screen, 16" metal intake pipe, centrifugal pump (rated at 3,000 gal/min), air compressor (80-gal air tank for airburst system), a 3-Phase electrical panel, a control panel, a salinity meter (using electrical conductivity), a flow meter, 1.5-inch air burst pipe and multiple lengths (4,500 feet) of 16-18" PVC schedule 120 conveyance pipe for discharge to existing underground irrigation line.

Mechanical (pump, motor, controls, airburst system) and electrical panels used in this project will be sited on an existing wooden platform at the diversion location. The platform will be decked with ¼ steel plate for mounting mechanical and electrical equipment for the diversion. It is not anticipated that any turbidity, settleable matter, other pollutants, will impact beneficial uses of water associated with the proposed project. For discharge piping, a small backhoe will be needed to dig the trench. Pump discharge will be conveyed through 16-18" PVC pipe. The Farm proposes to dig a trench approximately 48" deep and 4,500 feet long to connect with the farms existing underground mainline which feeds APN 103-020-074. The path of least disturbance will carry the conveyance pipe over the levy from the pump located on the wooden structure supporting the steel platform and through the farms pasture on the northwest side of the levee. The placement of the conveyance pipe will be a temporary disturbance of grass and invasive blackberry which occupies the proposed ditch alignment within the levy. When the trench is covered, grasses and blackberry will quickly recolonize the disturbed ground of the levee. This portion of the levee is estimated to impact 264 sq ft (trench 132'x2') with the riparian area.

The remaining area will be within the Farm's pastures, which will quickly recolonize with pasture grasses. This temporary impact of dredging within the pasture of approximately 8,736 sq ft (4,368 feet in length, by 2-feet-wide, by 4 feet deep). The entire 4,368-foot length of excavation occurs within a pasture that can be defined as a three-parameter wetland. As recommended by the Consulting Botanist Kyle Wear, a path of least disturbance was mapped and proposed for conveyance pipe placement. In addition, as recommend in the Farm's archeological survey of the site by DCZ Archeology, the Farm will reach out to local Native American Monitors 30 days prior to trenching and request a Native American cultural resource monitor during trenching activities. If, during or following subsurface exploration or trenching activities the tribal monitor(s) identify potential cultural resources, necessary protection and preservation measures will be required consistent with the requirements outlined in Attachment E of the General Waste Discharge Requirements For Dairies Within the North Coast Region", Order No. R1-2019-0001, "Tribal Cultural Resources Mitigation Program".

The project incorporates design criteria General Construction Measures (GCMs) to avoid species of special concern and their habitat (Table 1). All BMPs are consistent with those of the Federal Emergency Management Agency (FEMA) Endangered Species Programmatic consultation (NMFS 2018).

Table 1. Project Design Criteria, General Construction Measures, and other BMPs in the Proposed Project

Criterion Identifier and Measure		Brief Description
Project Design Criteria		
1	Water Management & Conservation Plan	Water withdrawal will be consistent with the States 401 and Federal 404 permit, which promotes conservation practices and may include a curtailment plan for water shortages.
2	Fish Passage	The Farm has prepared a Biological Assessment in Consultation with the NOAA to ensure that the diversion facility will not impede passage of native migratory fish, per Federal and State law. 404 Permit will seek a Biological Opinion from NMFS to ensure fish passage or other related
General Construction Measures		
3	Project Design	Minimize the extent and duration of earthwork.
4	In-Water Work Timing	Perform in-water work during dates recommended by NMFS, 404 permit.
5	Work Area Isolation	Isolate any work area within the wetted channel from the active river whenever ESA-listed fish are reasonably certain to be present. However, it is not anticipated given the design and placement of the screen that this will be necessary step, unless requested by 404 permit.

6	Fish Screens	Conform to the fish screen criteria and guidelines found in Chapter 11 of the <i>Anadromous Salmonid Fish Facility Design</i> manual (NMFS 2021), including: Screen Approach Velocity: The approach velocity must not exceed 0.30 ft/s for active screens. Using this approach velocity will minimize screen contact and/or impingement of juvenile fish. Effective Screen Area: The minimum effective screen area must be calculated by dividing the maximum screened flow by the allowable approach velocity (0.40 ft/s for active screens). Slotted Screens: Slotted screen face openings must not exceed approximately 1/16 inch in the narrow direction. Material: The screen material must be corrosion resistant and sufficiently durable to maintain a smooth uniform surface with long-term use. Other Components: Other components of the screen facility (such as seals) must not include gaps greater than the maximum screen opening defined above. Open Area: The percent open area for any screen material must be at least 27%.
7	Project Site Layout and Flagging	Before ground disturbance, clearly mark with flagging or survey marking paint sensitive areas, access routes, and staging, storage, and stockpile areas, as necessary.
8	Staging, Storage, and Stockpile Areas	Designate and use staging, storage, and stockpile areas if necessary to ensure that construction materials do not enter waterbodies. Do not dispose of non-native materials in the functional floodplain. Restore temporarily disturbed pervious areas. It is not anticipated that the use of construction materials will be necessary other than potentially adding a support to the wooden structure and the metal plate for diversion equipment.
9	Pollution and Erosion Control	Obtain and comply with the conditions in the 401 Water Quality Certification (401) permit from the North Coast Regional Water Quality Control Board.
10	Hazardous Material Safety	Take precautions to prevent spills or exposures to hazardous materials during construction.
11	Equipment, Vehicles, and Power Tools	Minimize damage to natural vegetation and permeable soils. Clean equipment to prevent leaks or debris entering waterbodies.
12	Fish Passage	Provide fish passage for any ESA-listed fish likely to be present in the action area during construction or operation. It is however anticipated that passage will not be an issue for the placement of infrastructure or its operation.

Criterion Identifier and Measure		Brief Description
1 3	Actions that Require Post-Construction Stormwater Management	Provide stormwater management for the increase in the impervious area within the project area, including access roads and other waterproof structures if necessary, and potential changes in stormwater conveyance. For water quality, provide onsite infiltration as first priority. As the structure already exists, it is not anticipated that stormwater management will be needed, as construction activities will occur in the spring and summer.
1 4	Site Restoration	Restore any significant disturbance of riparian vegetation, soils, streambanks, or stream channel. Remove waste. Loosen compacted soil areas.
1 5	Revegetation	Establish native vegetation by planting and seeding disturbed areas, if necessary, immediately after construction is completed.
Types of Action		
1 6	Streambank Restoration	Restore damaged the streambank at the water intake to a natural slope, pattern, and profile suitable for establishment of permanent woody vegetation using guidance from Cramer et al. (2002) and Cramer (2012) if necessary. As the site has been disturbed since 1969 and used annual to divert water, it has been well maintained and vegetation management and streambank restoration is not anticipated to be necessary.

In-Stream Construction

A small boom truck will be required to set the above ground intake pipe and the in-water diversion fish friendly screen and remove it annually from the access road at the Project site. As currently proposed, only grass which has grown into the gravel road will be disturbed during placement of the screen from the boom truck tires (approximately 120 sq ft). There is no proposed disturbance of any riparian vegetation, which would include willows, alders, and maple trees which occupy the levee.

As there will be no in-water construction, a turbidity curtain will not be needed in the work area. There will be no need for a cofferdam. Assurances of fish passage for native migratory fish during construction will be provided by an observer to insure there is no blockage preventing upstream or downstream movement during installation of the screen.

Turbidity generated during installation and removal of the fish screen will be temporary and most likely non-existent. It might only occur when the screen is set on the river bottom and removed on an annual basis. As the majority of bottom substrate is gravel and sand at this location, we do not expect fine sediment. As there will be no portion of the project which could trap or block fish passage, there will be no “take” of coho salmon anticipated.

The placement of the in-water diversion intake structure is scheduled for one (1) day but is anticipated to only take a few hours to place. It is not anticipated that adverse effects of the placement of the water diversion intake will impact coho salmon or water quality. Due to the nature of the construction, short construction window and placement which will likely scare fish away from the site of the intake during placement, impacts to fish and other aquatic resources are not expected during construction.

In consideration of project design criteria, the short construction duration, small disturbance footprint, and proposed water monitoring, the water intake will have no adverse effects on coho and their critical habitat during construction, or water quality throughout the duration of this project.

Schedule

Construction is expected to start in 2023 or later once all required approvals have been obtained. The overall construction period would encompass up to one-month if necessary for digging of the trench for the new conveyance mainline. Utility service relocation is not necessary and is currently located at the site. If permitted, the desired construction window would be between May 15 and June 30, or before the first rains in the fall.

2.4. Avoidance of Direct Impacts

There will be excavating of approximately 264 sq feet of riparian area which exists within a levee constructed in 1963. The riparian vegetation occupying the levee from lack of maintenance over the years has formed a hardwood riparian canopy in places made up of red alder and big leaf maple predominately. However, most of the riparian area which is established on the levee is composed of multiple willow species, invasive Reed Canary Grass and Himalayan Blackberry. The proposed project will create the smallest impact possible by using the existing wood platform that previously support the 1969 water diversion piping which channeled water over the top of the levee into an agricultural ditch. This wooden platform is now proposed to serve as the pumping plant, where the pump(s) and motor(s), air compressor and electrical control box will be located above MHHW mark. Excavation is proposed for a short distance (132-foot) within the riparian area to run the water conveyance line of site. There will be no opportunity for excavated materials to work their way off site due to the thick nature of the vegetation surrounding the excavation trench, which will be extremely narrow and placed during the spring when little to no precipitation is anticipated. The thick vegetation, composed of invasive Reed Canary Grass and Himalayan Blackberry, will serve a vegetive buffer for any fine sediments generated during excavation. Excavated material will be returned to the trench immediately after conveyance pipe placement. As it is spring or summer, it will likely take less than three (3) weeks for the invasives to recolonize the 132-foot trench area. As trenching will only be conducted during periods of no precipitation, on an area of the levee which as little to no slope, it will be relatively easy to avoid impacts to water quality and minimize direct impacts to the invasive vegetation.

Impacts to wetlands are temporary and revegetation of these areas is anticipated within 1-2 years. The location of the trench was finalized based on input from regulatory agencies. Input was provided during on-site and virtual meetings.

2.5. Required Permit Approvals

Applicable federal and state that will be needed prior to project implementation are identified in Table 2.

Table 2. Required Permit Approvals

Approving Agency	Required Permit/Approval	Required for
<i>Federal Agencies</i>		
U.S. Army Corps of Engineers	Coverage under Nationwide Permit 14 (Section 404 of the Clean Water Act, 33 USC 1341)	Discharge of fill material into waters of the United States
National Marine Fisheries Service	Consultation with lead Federal Agency to assess and mitigate impact or take to Federally Listed Species, ESA	Biological Opinion
<i>State Agencies</i>		
California Coastal Commission	Project approval/Coastal Development Permit	Potential Coastal Resource Impacts
Regional Water Quality Control Board (Central Valley)	Water quality certification (Section 401 of the Clean Water Act)	Discharge into waters of the United States
	Coverage under the General Construction Activity Storm Water Permit (Section 402 of the Clean Water Act, 40 CFR Part 122)	Storm water discharges associated with construction activity for greater than 1 acre of land disturbance
California State Lands Commission	Lease Agreement	Rent of State Lands below Mean High High Water Mark
California Department of Fish and Wildlife	Streambed Alteration Agreement (Section 1602 of the Fish and Game Code)	Installation of new screen, pump and associated infrastructure

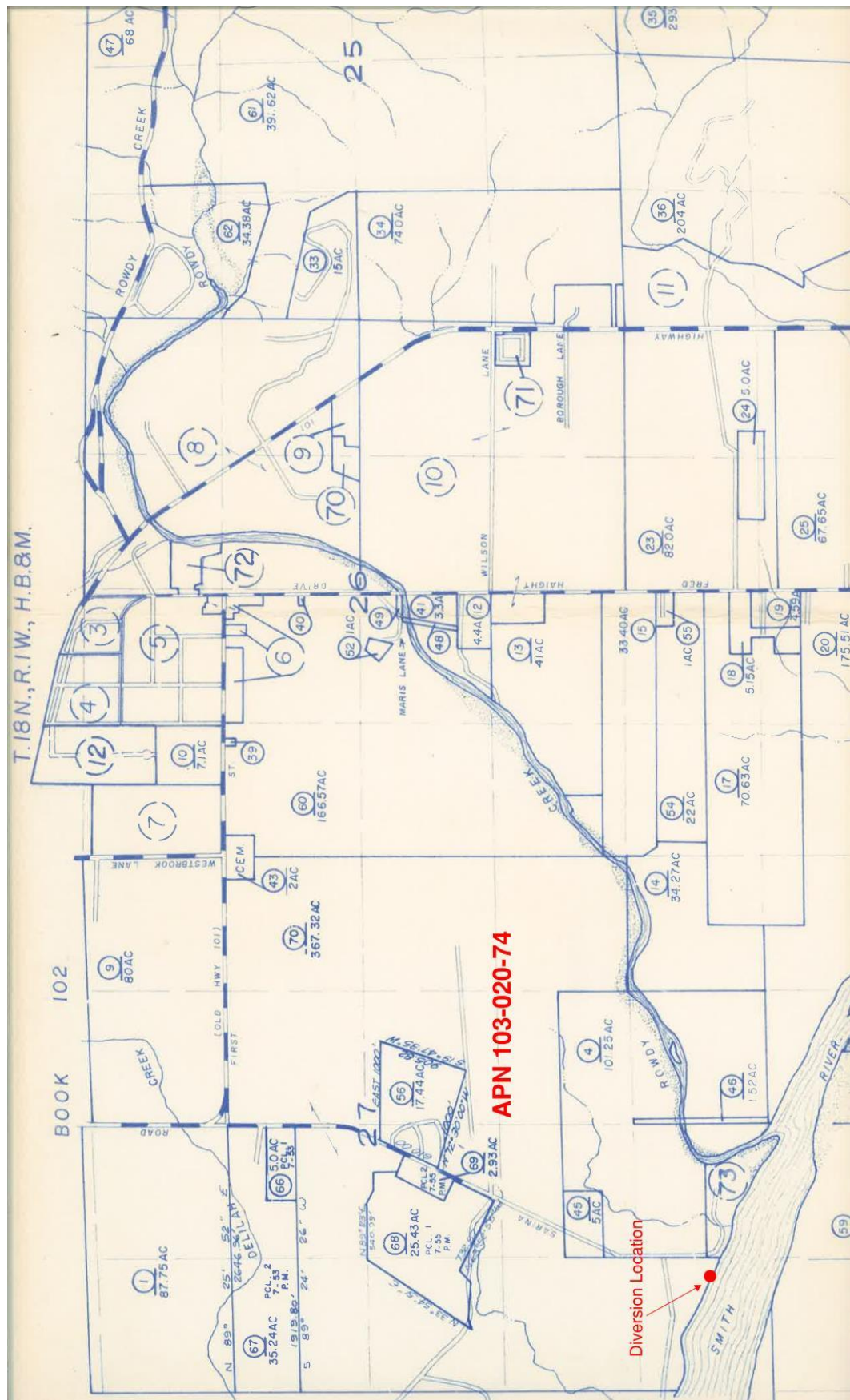


Figure 1. Project Area Location

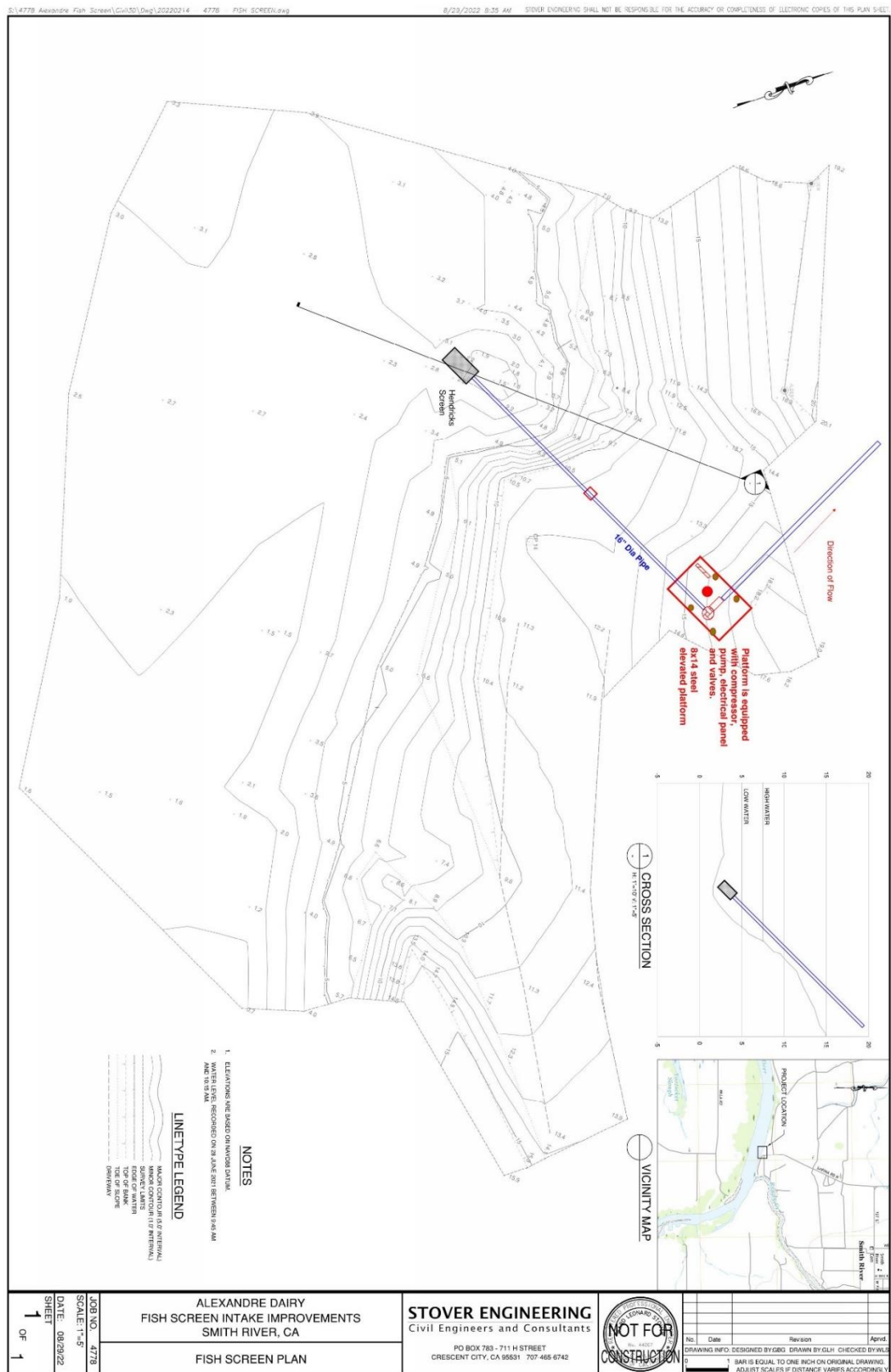


Figure 2. Project Design

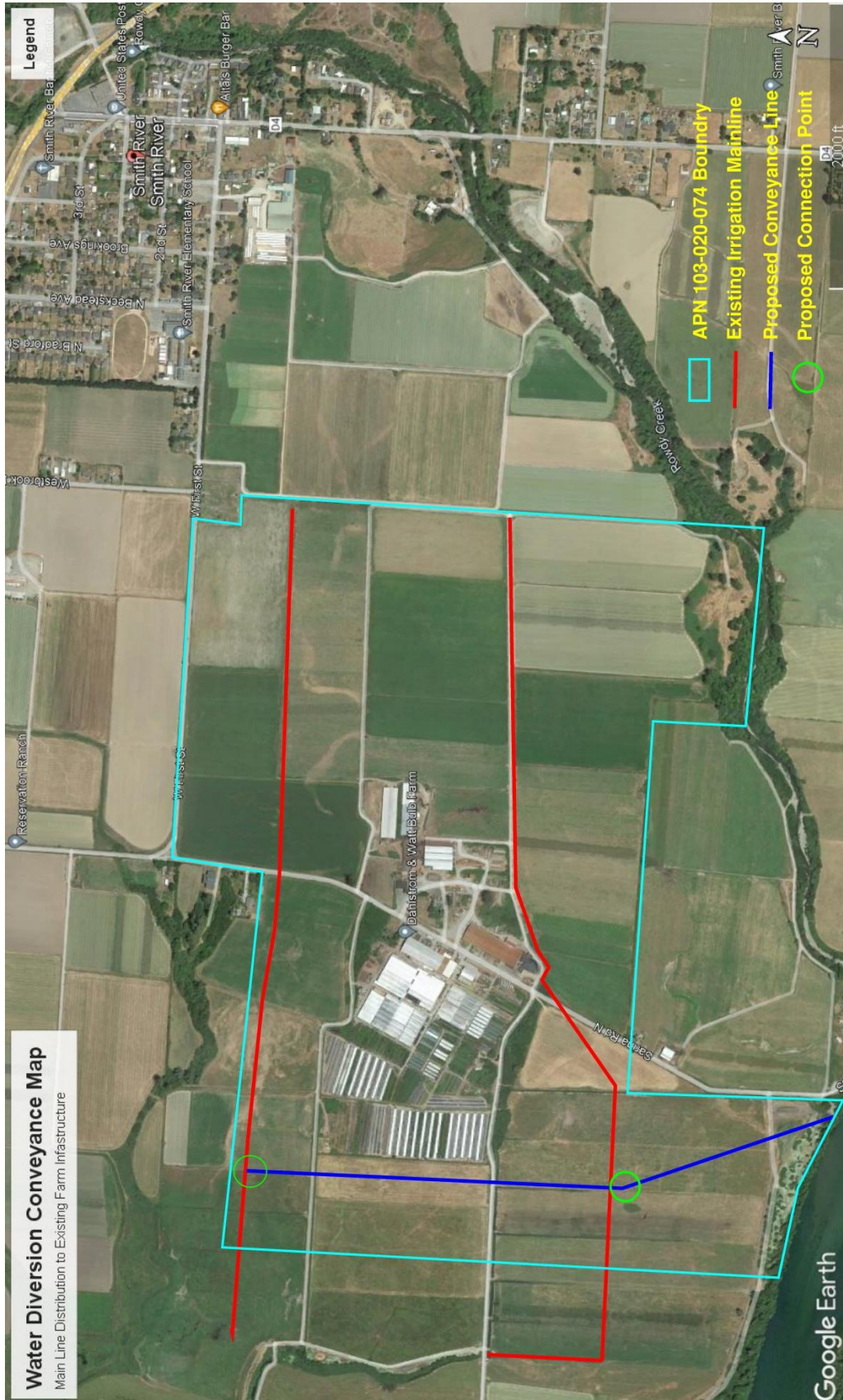


Figure 3. Proposed Conveyance Mainline

3. INITIAL STUDY CHECKLIST

3.1. Initial Study Checklist

This section of the Initial Study incorporates the Environmental Checklist contained in Appendix G of the CEQA Guidelines, except that greenhouse gases are discussed under air quality. Each resource section provides a brief description of the setting, a determination of impact potential, and a discussion of the impacts. Mitigation measures are identified where appropriate for adoption by the County and incorporation into the proposed project and contractor documents to reduce potential impacts to less-than- significant levels. The following 16 environmental categories are addressed in this section:

- Aesthetics
- Agriculture and Forest Resources
- Air Quality/Greenhouse Gas
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems

Each of the environmental categories was fully evaluated, and one of the following four determinations was made for each checklist question:

- **“No Impact”** means that no impact to the resource would occur as a result of implementing the project.
- **“Less than Significant Impact”** means that implementation of the project would not result in a substantial and/or adverse change to the resource, and no mitigation measures are required.
- **“Potentially Significant Unless Mitigation is Incorporated”** means that the incorporation of one or more mitigation measures is necessary to reduce the impact from potentially significant to less than significant.
- **“Potentially Significant Impact”** means that there is either substantial evidence that a project- related effect may be significant, or, due to a lack of existing information, could have the potential to be significant.

3.2. Setting, Impacts, and Mitigation Measures

I. AESTHETICS	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				X
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?				X

Environmental Setting

The project area is in a rural community Del Norte County. Views from the project area are dominated by the farm pastures and the main stem of the Smith River. The project is tucked away on the banks of the Smith River and riparian vegetation obscures visibility of the pumping platform and equipment.

Discussion of Impacts

a, b, c, d) **No Impact.** The proposed project would not permanently alter views of scenic vistas in the vicinity of the project area or damage any scenic resources for recreational users of the river.

II. AGRICULTURE AND FOREST RESOURCES — Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined by Public Resources Code section 12220(g)), timberland				

(as defined by Public Resources Code section 4526), or timberland zoned Timberland Production as defined by Government Code Section 51104(g))?				X
d) Result in loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion?				X

Environmental Setting

The project area encompasses pasture farm lands, a river, an existing gravel road, open space, and riparian vegetation. The project area contains farmland that is designated as Prime, Statewide, or Locally Important Farmland (California Department of Conservation 2014) and is supported by this agricultural water source. In addition, the project area does not contain any forested land.

Discussion of Impacts

- a, b, c, d, e) **No Impact.** The project will not have an impact on important farmland.. The proposed project is a water diversion replacement project to ensure the prime agriculture lands remain productive. There are no other changes that could convert farmland to non-agricultural uses. No forest land is present in the project area. The proposed project would not result in a loss of forest land or conversion of forest to non-forest use.

III. AIR QUALITY/GREENHOUSE GAS — Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Violate any air quality standard or contribute to an existing or projected air quality violation?				X
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				X
d) Expose sensitive receptors to substantial pollutant concentrations?				X
e) Create objectionable odors affecting a substantial number of people?				X
f) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				X
g) Conflict with any applicable plan, policy, or				X

regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?				
--	--	--	--	--

Environmental Setting

The project area is in the North Coast Unified Air Quality Management District, and air quality is regulated by the District (NCUAQMD). The NCUAQMD regulates air quality through the federal and state Clean Air Acts, district rules, and its permit authority.

National and state ambient air quality standards have been adopted by the Environmental Protection Agency and the State of California, respectively, for each criteria pollutant: ozone, particulate matter, carbon monoxide, nitrogen dioxide, and sulfur dioxide. NCUAQMD (2015) RULE 110 NEW SOURCE REVIEW (NSR) AND PREVENTION OF SIGNIFICANT DETERIORATION identifies specific daily emissions thresholds based on the national and state standards that can be used to determine the significance of project emissions. Thresholds of significance for pollutants of concern are:

- Reactive Organic Gasses (ROG): 50 lbs/day
- Nitrogen Oxides (NOx): 50 lbs/day
- Carbon Monoxide (CO): 500 pounds per day
- Respirable Particulate Matter (PM₁₀): 80 µg/m³ – annual geometric mean; 50 µg/m³ – 24-hour average

The NCRAQMD has been designated as attainment for both federal and state ozone standards and for the state PM₁₀ and federal PM_{2.5} standards. Table 1 within [Rule 110 \(E\)](#) lists the significance thresholds for each of the criteria pollutants. [Ambient Air Quality Standards](#): The District is currently in attainment of all of the federal health-protective standards. The district meets all of the State standards as well with the exception of the standard for particulate matter 10 microns in size and smaller. Sources of pollutants in the project vicinity include vehicle emissions, wood-burning stoves in nearby residences, and other residential activities.

Discussion of Impacts

- a, b) **No Impact.** Construction activities would not result in a long-term or short-term increase in emissions from the use of heavy equipment that generates dust or exhaust, and soil disturbance. Emissions could include fugitive dust (PM₁₀ and PM_{2.5}) from ground-disturbing activities and both reactive organic compounds (ROG) and nitrogen oxide (NOx) emissions from vehicle and equipment operations. Due to the nature of the project, its location on agricultural lands and type of equipment being utilized during construction, construction-related emissions would be minimized to the point that compliance with NCRAQMD Rule 110 would be easily met. The Air Quality Management District is designated attainment for PM₁₀, compliance with AQMD Rules 110 would ensure that the emissions do not result in a violation of air quality standards in the air basin or a substantial adverse contribution to air quality in the region. Pumps are electrified and no gas- or diesel-powered equipment is needed for the long-term operation of the pump.
- c) **No Impact.** As discussed under items a, b) above, the proposed project would result in minor construction-related emissions for 4-8 hours. It would not result in a cumulatively considerable net increase of any criteria pollutant. The project would cause short-term air quality impacts because of construction activities only; however, it would not result in long-term or cumulatively considerable increases in air quality pollutant emissions for which the NCUAQMD is currently designated attainment (ozone precursors, PM_{2.5}, and PM₁₀) because the equipment running the pumps is electric.

- d) **No Impact.** As discussed in a, b) above, construction activities would result in short-term increases in emissions (4-8 hours). The closest residence is within 1000 feet of the project area and would not be exposed to temporary air pollutants from construction activities, such as, ROG, NOx, and carbon monoxide. Construction activities would be temporary, lasting approximately 4-8 hours, and emissions would not be substantial. Trenching in the pasture would not stir up fugitive dust, as pastures are irrigated and green. Sensitive receptors would not be exposed to substantial pollutant concentrations. Air quality would not be impacted.
- e) **No Impact.** Construction activities would involve the use of gasoline or diesel-powered equipment that emits exhaust fumes for installation. These activities would take place intermittently throughout the installation, which is estimated to take less than a day, and the associated odors are expected to dissipate within the immediate vicinity of the work area. The limited number of receptors, infrequency of the emissions, rapid dissipation of the exhaust into the air, and short-term nature of the construction activities would result in no impacts.
- f) **No Impact.** Greenhouse gases (GHGs) are recognized by wide consensus among the scientific community to contribute to global warming/climate change and associated environmental impacts because of their ability to trap heat in the atmosphere and affect climate. The major GHGs that are released from human activity include carbon dioxide, methane, and nitrous oxide (Governor's Office of Planning and Research 2008).

The proposed project would not generate significant emissions of GHGs for pump or motor as well as construction-related equipment emissions. The project would not increase the generation of emissions after construction is complete and would be similar to current conditions. Emissions of GHGs resulting from construction activities would be short-term and insignificant. The project would not have an incremental contribution within the context of the county and region.

- g) **No Impact.** The proposed project would not generate significant emissions of GHGs and, therefore, would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing the emission of GHGs.

IV. BIOLOGICAL RESOURCES — Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and National Marine Fisheries Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and National Marine Fisheries Service?		X		
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Environmental Setting

The habitat communities in the project area include farm pasture and riverine (i.e., Smith River). Annual pasture habitat is located on the north side of the project area of the Smith River. Prime Agricultural land made up of open pasture is the main habitat type present in the project area. The Smith River flows from east to west through the project area. It is a scoured drainage dominated by run characteristics, with cobble, gravel, and sand substrates, and has large patches of Himalayan blackberry, red alder, willow, big leaf maple along the banks.

No special status plant species were observed in the area during wetland delineations and as the project rests on a levee which was constructed in 1963, most likely removed plants which were characteristic of a wetted environment. Special-status animal species that may use the project area include northern red-legged frog (*Rana aurora aurora*), western pond turtle (*Actinemys marmorata*), and coho salmon (*Oncorhynchus kisutch*). All of these species are California Species of Special Concern or listed as threatened under the Endangered Species Act. The Smith River adjacent to the project site provides excellent aquatic habitat to support rearing and cover for these species. NMFS uses four parameters to assess the viability of the species:

spatial structure, diversity, abundance, and productivity (McElhany et al. 2000). These “viable salmonid population” criteria therefore encompass the species’ “reproduction, numbers, or distribution” as described in 50 *Code of Federal Regulations* (CFR) 402.02. When these parameters are at appropriate levels, they maintain a population’s capacity to adapt to various environmental conditions and allow it to sustain itself in the natural environment. These attributes are influenced by survival, behavior, and experiences throughout a species’ entire life cycle, and these characteristics, in turn, are influenced by habitat and other environmental conditions.

Southern Oregon/Northern California Coast Coho Salmon

The Smith River population of coho salmon is considered at a high risk of extinction and likely below the depensation threshold, which is the minimal number of adults necessary to maintain the survival of the population (NMFS 2014). The viability threshold for coho salmon in the Smith River is 6,800 adult spawners (NMFS 2014). Current estimates of the population are sparse, but (NMFS 2016) placed the average population based on redd counts and only two years of data at 331 adults, which is very near the depensation threshold of 325 adults (NMFS 2016). NMFS (2014) identified agriculture as a key limiting threat to the recovery of coho salmon in the Smith River and a key limiting stress identified was impaired estuary function. Garwood and Larson (2014) found young-of-the-year coho salmon rearing in the estuary during the summer (June-August) where they were almost exclusively found in the mainstem Smith River. Parish and Garwood (2015) documented extensive use of sloughs and tributaries along the coastal plain and estuary by yearling coho salmon during the winter months (January-April). These documented life-history patterns indicate different species and age classes are taking advantage of a spectrum of habitats in the coastal plain, mainstems and estuary of the Smith River.

Extensive background on the lower Smith River, including the physical description, reclamation history, current land use, and previous fisheries monitoring can be found in Parish and Garwood (2015). Parish and Garwood (2015) found salmonid distributions, especially coho salmon, were more widespread throughout the estuary and coastal plain during the winter when temporary streams and slough channels-maintained water. Additionally, summer salmonid distribution monitoring has occurred annually since 2012 throughout the Smith River basin (Garwood and Larson 2014, Garwood et al. 2014, Walkley and Garwood 2015) and these efforts overlap with the majority of available summer estuary and coastal plain habitat described extensively by Parish and Garwood (2015).

In the Smith River action area, the peak coho salmon run is December-January (NMFS 2016a). Most juvenile coho salmon migrate to the ocean as smolts in the spring, typically from as late as March into June (NMFS 2016b). However, the action area is lightly used by juvenile coho salmon, first entering the action area as zero- age smolts or as 1+ age smolts preparing to out-migrate (Parish and Garwood (2015). There is relatively little holding habitat in the accession area and it is anticipated that fish passing this location will not be impacted. Figure 5 from Garwood and Parish (2015) shows summer distribution of coho in the action area.

Coho salmon have been shown to exhibit diverse life history strategies. The historic assumption was that early emigrates or “nomads” had low survival rates and did not substantially contribute to the adult escapement population (Koski 2009). However recent studies have shown that individuals exhibiting alternative life histories including early emigration and non-natal rearing contributed to approximately 30 percent of adult escapement (Bennett et al. 2014; Jones et al. 2014). As seen in other Pacific Northwest streams, coho salmon utilizing non-natal rearing habitat in the mainstem and estuary ecotone during the

summer and winter months (Miller and Sadro 2003; Wallace 2006; Koski 2009; Jones et al. 2014) throughout the Smith River plain.

Coho salmon occupancy in the coastal plain was higher during the summer months than the winter months across surveyed reaches and was relatively stable throughout both seasons (Parish and Garwood 2015). Furthermore, coho salmon had higher occupancy in the mainstem than the coastal tributaries during the summer but higher use of coastal tributaries during the winter than the summer. Seasonally utilizing varying habitats in the stream estuary ecotone has also been documented in the other Pacific Northwest basins (Jones et al. 2014).

Garwood and Parish (2015) found backwater and alcove features to be important rearing habitats during both the summer and winter sampling seasons as has been documented in other coastal regions (Bustard and Narver 1975; Nickelson et al. 1992). During winter months these habitat features are commonly occupied.

Garwood and Parish (2015) also found stream temperature is likely a limiting factor to non-natal summer rearing habitat, even though they found coho salmon to occupy sites reaching >23 °C. The importance of dense overhanging cover and depths >1m is important to summer rearing. They found fluctuations in temperature occurred daily and at various water depths in the main stem which they believe play a role in allowing for juvenile coho salmon to survive peak summer water temperatures.

NMFS reviewed the status of designated critical habitat by examining the condition and trends of essential physical and biological features (EPBF) throughout the action area. These features are essential to the conservation of the listed species because they support one or more of the species' life stages (e.g., sites with conditions that support spawning, rearing, migration, and foraging). Critical habitat for the Southern Oregon/Northern California Coasts ESU encompasses accessible reaches of all rivers (including estuarine areas and tributaries) between the Mattole River in California and the Elk River in Oregon, inclusive.

Status of the Critical Habitat

Critical habitat has been designated for SONCC coho salmon (Table 4). Table 5 summarizes the essential physical and biological features of critical habitats designated for ESA-listed coho salmon, and corresponding species life history events (NMFS 2018). The critical habitats of SONCC coho salmon primarily are freshwater migration corridors, but rearing functions probably occur in these areas (Table 5). The essential physical or biological features of freshwater migration corridors associated with spawning and incubation sites include water flow, quality and temperature conditions supporting larval and adult mobility, abundant prey items supporting larval feeding after yolk sac depletion, and free passage (no obstructions) for adults and juveniles. These features are essential to conservation because they allow adult fish to swim upstream to reach spawning areas and they allow young of the year fish to proceed downstream and reach the ocean. Table 10 describes the EPBF for SONCC coho salmon critical habitat in the action area at Smith River.

Oregon Coast Chinook Salmon and Other Species

Few directed studies have characterized the biodiversity and salmonid life histories within the Smith River estuary. A brief description of fish diversity in the estuary is provided by Monroe (1975) who noted 24 species. No actual fish sampling was described or indicated, and the species list cannot be fully substantiated. A seine study conducted by Mizuno (1998) added six more fish species to Monroe's list resulting in a total of 30. A Fyke net study by Parthre (2004) identified a

total of 26 fish species using two major slough habitats (Tillas and Islas sloughs). Overall, a total of 38 fishes have been described in the estuary Table 10 and many have been confirmed from multiple observations. Parthre (2004) determined life history patterns for a subset of fish species, including recruitment, dispersal, duration of use, and relative abundance. Last, studies by Zajanc (2003), Quinones (2003), and Quinones and Mulligan (2005) determined life history patterns and habitat use of juvenile salmonids rearing along the mainstem Smith River within the estuary.

Zajanc (2003) conducted a mark-recapture study on Chinook salmon (*Oncorhynchus tshawytscha*) during the summer (and early fall) months in 1998-2000 to assess the rearing duration and seasonal changes in size. Mean residency time from June to early October was found to be 25 days. The study also concluded that mean residency time was lower in June and July, with a range from 8 -14 days, compared to August with a high of 38 days. Long estuary residency time of released Rowdy Creek hatchery fish was also documented with recaptures 86 days and 104 days post hatchery release in 1999 and 2000, respectively. Quinones (2003) and Quinones and Mulligan (2005) focused on habitat use of juvenile Chinook salmon, juvenile trout spp. (coastal cutthroat trout [*Oncorhynchus clarki clarki*] and steelhead [*Oncorhynchus mykiss*]). These studies found salmonids appeared to select for habitats with overhanging vegetation highlighting the importance of maintaining riparian vegetation.

Oregon Coast Chinook salmon are not listed as threatened or endangered under the Endangered Species Act, but EFH for Pacific Coast salmon is protected under the Magnuson-Stevens Act. Although low gradient streams like Smith River are preferred spawning sites for Chinook salmon (NMFS 1997), Chinook salmon only use Smith River occasionally during drought conditions **for** spawning, preferring larger tributaries like Mill Creek, Rowdy Creek, and Patrick's Creek to spawn. Peak river-entry times for fall-run stocks range from September to December. Peak spawning periods for coastal fall runs occur from late-October to early- December.

Based on recent data collection, some areas of the estuary and coastal plain appear to remain productive at key time periods for individual species. For example, Quinones and Mulligan (2005) and Zajanc (2003) found large numbers of juvenile Chinook salmon and trout *sp.* rearing throughout the freshwater portion of the estuary from the spring through late summer. Juvenile Chinook salmon occupancy rates declined consistently throughout the summer which is expected given their fixed life history of migrating to the ocean during their first fall. However, their occupancy rate still equaled 0.44 (SE 0.11) in September indicating the Smith River has a strong stream-type Chinook salmon life history (Garwood and Parish 2015). Similar to coho salmon, occupancy rates of juvenile trout were generally high (0.80 – 0.88) and remained stable throughout the summer. Last, coastal cutthroat trout occupancy rates generally increased through time equaling 0.15 in June and 0.45 in September. Garwood and Parish (2015) found a diverse community of salmonids and other fish species using monitoring stations highlighting the importance of summer habitats characterized with underwater cover features. Species typically found in the lower Smith River can be seen in Table 6 and a distribution map of salmonids and other species detected during Garwood and Parish (2015) surveys is available in Figure 5.

Six phylogeographic units based on genetic similarities and differences have been identified as recovery units for tidewater goby throughout their range and the northern-most unit is Tillas Slough in the Smith River Plain (USFWS 2005). Critical habitat for tidewater goby is also designated in Tillas Slough (USFWS 2005).

The goal of conservation and recovery of tidewater goby is complicated by the species' complex genetics and, the genetic metapopulation structure, the 1-year life span of individuals, large swings in population size, limited research, and difficulties in determining population size (USFWS 2005). Delisting the species as endangered will require both a reduction in threats to the species

and a metapopulation viability analysis that indicates all six recovery units are viable based on monitoring over a 10-year period (USFWS 2005).

Table 3. Listing Classification and Date, Recovery Plan Reference, Most Recent Status Review, Status Summary and Limiting Factors for SONCC Coho Salmon.

Species	Listing and Date	Recovery Plan Reference	Most Recent Status Review	Status Summary	Limiting Factors
Southern Oregon / Northern California Coast coho salmon	Threatened 5/6/1997	NMFS 2014	NWFS 2016	This ESU comprises 40 populations including 21 independent and 21 core populations, and nine (9) dependent populations. The last status review indicated a high risk of extinction. Significant improvements in hatchery and harvest practices have been made for this ESU. Most recently, spatial structure conditions have improved in terms of spawner and juvenile distribution in watersheds; none of the geographic area or strata within the ESU appear to have considerably lower abundance or productivity. The ability of the ESU to survive another prolonged period of poor marine survival remains in question.	• Reduced amount and complexity of habitat including connected floodplain habitat • Degraded water quality • Blocked/impaired fish passage • Inadequate long-term habitat protection • Changes in ocean conditions • Insufficient Instream Flow • Unsuitable Water Temperatures • Insufficient Summer and Winter Rearing Habitat • Regulation of Marijuana Cultivation

Table 4. Critical Habitat, Designation Date and Federal Register Citation, and Status Summary for SONCC Coho Salmon

Species	Designation Date and Federal Register Citation	Critical Habitat Status Summary
Southern Oregon/Northern California Coast coho salmon	May 5, 1999, 64 FR 24049	The long-term decline in SONCC Coast coho salmon productivity reflects deteriorating conditions in freshwater habitat as well as extensive loss of access to habitats in estuaries and tidal freshwater. Many of the habitat changes resulting from land use practices over the last 150 years that contributed to the ESA-listing of SONCC coho salmon continue to hinder recovery of the populations; changes in the watersheds due to land use practices have weakened natural watershed processes and functions, including loss of connectivity to historical floodplains, wetlands and side channels; reduced riparian area functions (stream temperature regulation, wood recruitment, sediment and nutrient retention); and altered flow and sediment regimes (NMFS 2016b). Several historical and ongoing land uses have reduced stream capacity and complexity in coastal streams, road building, splash damming, stream cleaning, and other activities. Beaver removal, combined with loss of large wood in streams, has also led to degraded stream habitat conditions for coho salmon).

Table 5. Types of Sites and Essential Physical and Biological Habitat Designated for ESA-Listed SONCC Coho Salmon and Corresponding Species Life History Events

Site Type	Essential Physical and Biological Features	Species Life History Event
Freshwater Rearing	Floodplain connectivity Forage Natural cover Water quality Water quantity	Fry emergence from gravel Fry/parr/smolt growth and development
Freshwater Migration	Free of artificial obstruction Natural cover Water quality Water quantity	Adult sexual maturation Adult upstream migration and holding Kelt (steelhead) seaward migration Fry/parr/smolt growth, development, and seaward migration

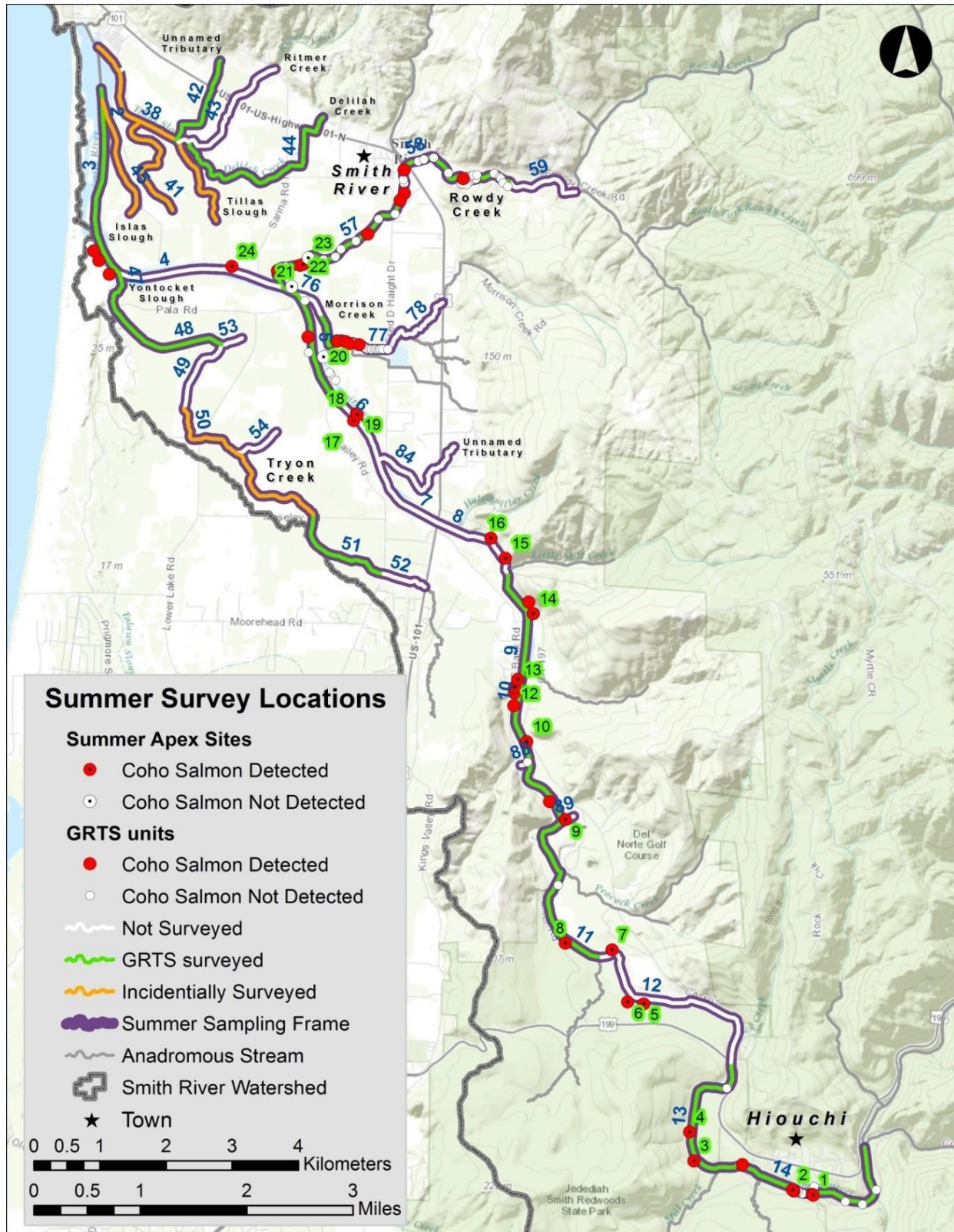


Figure 4. Map showing spatial distribution of pools containing juvenile coho salmon during summer

surveys, Smith River Basin, California.

Table 6. Annotated list of 38 documented fish species occurring in the Smith River, Del Norte County, California. (Garwood and Parish)

Common name	Species	Family	Source	This Study
Green sturgeon	<i>Acipenser medirostis</i>	Acipenseridae	A, B	
Topsmelt	<i>Atherinops affinis</i>	Atherinidae	A, C, D	
Jacksnelt	<i>Atherinops californiensis</i>	Atherinidae	C, E	
Speckled sanddab	<i>Citharichthys stigmaeus</i>	Bothidae	C, P	
Klamath smallscale sucker	<i>Catostomus rimiculus</i>	Catostomidae	C, P	
American shad ¹	<i>Alosa sapidissima</i>	Clupeidae	A	
Pacific herring	<i>Clupea harengus</i>	Clupeidae	A, C, D, E	
Pacific sardine	<i>Sardinops sagax</i>	Clupeidae	C	
Sharpnose sculpin	<i>Clinocottus acuticeps</i>	Cottidae	C, E	
Coastrange sculpin	<i>Cottus aleuticus</i>	Cottidae	D, O, P	Yes
Prickly sculpin	<i>Cottus asper</i>	Cottidae	A, C, D, E, O, P	Yes
Buffalo sculpin	<i>Enophrys bison</i>	Cottidae	This Study	Yes
Staghorn sculpin	<i>Leptocottus armatus</i>	Cottidae	C, E, P	Yes
Cabazon	<i>Scorpaenichthys marmoratus</i>	Cottidae	C	
Redtail surfperch	<i>Amphistichus rhodoterus</i>	Embiotocidae	A	
Shiner surfperch	<i>Cymatogaster aggregata</i>	Embiotocidae	A, C, D, P	Yes
Striped surfperch	<i>Embiotoca lateralis</i>	Embiotocidae	C, E	Yes
Northern anchovy	<i>Engraulis mordax</i>	Engraulidae	A, C, E	
Threespine stickleback	<i>Gasterosteus aculeatus</i>	Gasterosteidae	A, C, E, P	Yes
Tidewater goby ²	<i>Eucyclogobius newberryi</i>	Gobiidae	E, F, G, P	
Whitebait smelt	<i>Allosmerus elongatus</i>	Osmeridae	C	
Surf smelt	<i>Hypomesus pretiosus</i>	Osmeridae	A, C, D, E, P	Yes
Night smelt	<i>Spirinchus starksi</i>	Osmeridae	C	
Eulachon ²	<i>Thaleichthys pacificus</i>	Osmeridae	A	
Pacific lamprey	<i>Lampetra tridentata</i>	Petromyzonidae	A, C, P	
Western brook lamprey	<i>Lampetra richardsonii</i>	Petromyzonidae	H	
Saddleback gunnel	<i>Pholis ornata</i>	Pholidae	A, C, D, E	Yes
English sole	<i>Parophrys vetulus</i>	Pleuronectidae	E	
Starry flounder	<i>Platichthys stellatus</i>	Pleuronectidae	A, C, D, E, P	Yes
Sand sole	<i>Psettichthys melanostictus</i>	Pleuronectidae	C	
Coastal cutthroat trout	<i>Oncorhynchus clarki clarki</i>	Salmonidae	A, C, D, P	Yes
Pink salmon	<i>Oncorhynchus gorbuscha</i>	Salmonidae	I	
Chum salmon	<i>Oncorhynchus keta</i>	Salmonidae	A, H, J, K	
Coho salmon ²	<i>Oncorhynchus kisutch</i>	Salmonidae	A, C, L, P	Yes
Steelhead	<i>Oncorhynchus mykiss</i>	Salmonidae	A, C, D, E, M, P	Yes
Sockeye salmon	<i>Oncorhynchus nerka</i>	Salmonidae	N	
Chinook salmon	<i>Oncorhynchus tshawytscha</i>	Salmonidae	A, C, D, E, M, P	Yes
Black rockfish	<i>Sebastes melanops</i>	Scorpaenidae	A	
Bay pipefish	<i>Syngnathus leptorhynchus</i>	Syngnathidae	A, C, P	Yes
Annotated list of sources; refer to literature cited section for full document citations: A: Monroe, G. et al. (1975); B: Larson, Z. (2014); C: Parthree, D. (2004); D: Zajanc, D. (2003); E: Mizuno, E. (1998); F: Dawson, M. et al. (2001); G: Chamberlain, C. (2006); H: Howard, C. and R. McLeod (2005); I: [CDFW files, Arcata, CA] Newspaper story and captured specimen photograph (1964); J: Waldvogel, J. (2006); K: Garwood, J. et al. (2014); L: Garwood, J. (2012); M: Quinones, R. (2003); N: Garwood, J. and M. Larson (2014); O: White, J. and B. Harvey (1999); P: Parish, M. and J. Garwood (2015). ¹ non-native species; ² Protected under Federal and or State Endangered Species Acts				

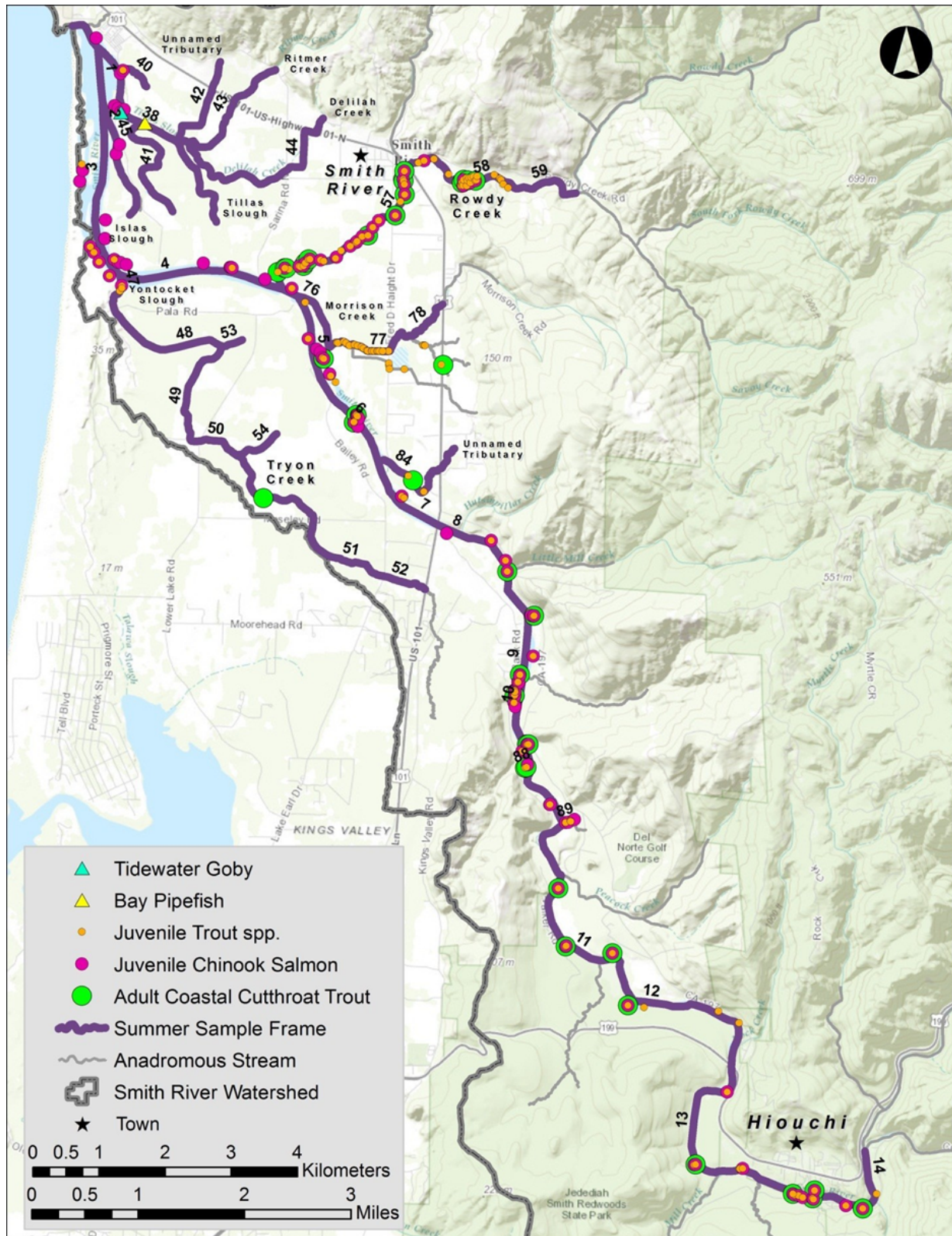


Figure 5. Distribution of various fish species captured during the summer of 2014 and the

winter of 2015, Lower Smith River and coastal plain, Del Norte County, California (Garwood and Parish 2015)

Discussion of Impacts

- a) ***Potentially Significant Impact Unless Mitigation Incorporated.*** Pumping activities could adversely affect one threatened species. The placement and seasonal operation of the diversion will affect less than 8 sq ft of the channel and utilize 5.5 cfs of water at the diversion location. The diversion is located at the existing (1969) diversion site and minimizes permanent impacts on the river and riparian area by utilizing the existing footprint of the old diversion infrastructure, resulting in no negligible loss of habitat.

In consultation with the NMFS, a screen which would prevent the suction or impingement of young-of-the-year salmonids was required. Following the NOAA draft technical memorandum (2011), a fish screen was designed by Hendricks screens to meet NOAA Fisheries West Coast Region Anadromous Passage Design and 2011 NMFS *Anadromous Salmonid Passage Facility Design*, which includes an active intake screen equipped with proven cleaning capability (automatically cleaned as frequently as necessary to keep the screen free of any debris that will restrict flow area).

To mitigate for the potentially significant impacts to migratory fish, the intake screen will be an active¹ drum style fish screen, set perpendicular to the flow, and in alignment with the natural riverbank slope, with the following specifications:

- Approach velocity shall be less than or equal to 0.3 foot per second (ft/sec) for active screens.
- Maximum screen angle shall be 45 degrees.
- Slotted screen shall be used, with openings less than or equal to approximately 0.69 inch.
- Material of screen shall be corrosion resistant.

The screen area will be approximately 8.0 square feet, which will yield an approach velocity less than the applicable NMFS fish screening criteria (2.0 cubic feet per second [cfs] per 0.4 ft/sec = 5 square feet; a larger screen has an approach velocity less than 0.4 ft/sec). The anticipated low water level of the Smith River determines the top elevation of the inlet screen. The lowest river level reported by Stover Engineering (2021) was 5 feet. The mean reported by USGS was 7.6 feet. Based on these values, the top of the screen will be set at an elevation of 7 feet.

With the following measures taken, mitigation incorporated through the use of a Hendricks Screen, the project will not interfere substantially with the movement of any resident or migratory fish species within the Smith River Corridor.

Direct impacts on northern red-legged frog could include harassment, injury, and mortality of individuals during construction activities near the pasture. Indirect impacts could result from short disturbance of pasture grasses and the removal of vegetation along the trenching route. Implementation of BMPs would ensure that impacts on pasture habitat is temporary and only occurs during the day and dry periods when red-legged frog activity is significantly less or non-existent.

Mitigation Measure 1: Implement measures to prevent impingement and sucking

of young-of the year salmonids, including SONC Coho salmon fry.

The NMFS will require the Dairy to implement the following measure to prevent the mortality of young-of-the-year coho salmon:

- Purchase Hendricks Screen with the follow specifications: Approach velocity shall be less than or equal to 0.3 foot per second (ft/sec) for active screens.
- Maximum screen angle shall be 45 degrees.
- Slotted screen shall be used, with openings less than or equal to approximately 0.69 inch.
- Material of screen shall be corrosion resistant.

Mitigation Measure 2: Implement construction measures to reduce impacts on the northern red-legged frog.

The Dairy will implement the following measures to avoid or minimize project-related impacts on northern red-legged frog:

- Environmental awareness training will be conducted by a qualified biologist prior to onset of the work for construction personnel to brief them on how to recognize northern red-legged frog, or any other special-status animals that may occur in the project area.
- To avoid potential injury or mortality to northern red-legged frog using vegetated areas for cover along dairy pastures, trenching will only occur during the spring and summer months when vegetation is dry and during daylight hours when frogs are significantly less active.
- If northern red-legged frogs are encountered in the project area during construction and will be harmed by construction activities, work will stop in the area and the dairy's biologist will relocate the frog to an adjacent riparian area.

b, c) ***Potentially Significant Impact Unless Mitigation Incorporated.*** The Dairy proposes the following materials to be used in construction of the diversion: Hendricks stainless steel intake screen, 16" diameter metal intake pipe, centrifugal pump (rated at 3,000 gal/min), air compressor (80-gal air tank for airburst system), a 3-Phase electrical panel, a control panel, a salinity meter (using electrical conductivity), a flow meter, 1.5" diameter air burst pipe and multiple lengths (approximately 1,500') of 18" diameter PVC schedule 120 conveyance pipe for discharge to existing underground irrigation line. Mechanical (pump, motor, controls, airburst system) and electrical panels used for this project will be sited on an existing wooden platform at the diversion location. The platform will be decked with ¼" thick steel plate for mounting mechanical and electrical equipment for the diversion and sit at an elevation approximately 11 feet above bank full height of the Smith River. Overall, the proposed project has been designed to minimize impacts on the Smith River and its riparian corridor to the maximum extent practicable.

Once the trench transitions to the farmed pastures, it will travel another 4,350 feet to intersect with two existing mainline conveyance pipes that irrigate APN 103-020-074. Botanical and wetland surveys were also conducted in the farmed pastures, and it has been determined that reduced oxygen soils, and other wetland indicators do exist throughout much of the proposed route to interest the existing mainlines. There is no

avoiding the redox soils with shifts to the right or the left as pretty much the entire farmed pasture meets the definition of a single parameter wetland due to the nature of the reduced oxygen soils. There however was no indication that any botanically sensitive species or hydrologically functioning wetland would be disturbed by the proposed route. Given the fields have been farmed beginning as early as the 1950's based on aerial photogrammetry, it is likely that many decades of disturbances have altered the hydrologic connectivity of these fields, including the placement of the levee in 1963. Care will be taken when excavating the ditch to a depth of four feet, and a narrow width of two feet to return soil and pasture grass carefully back into place. As with the section of trench running through the riparian habitat within the levee, re-establishment of the pasture grasses will occur relatively quick given the project will take place in the spring or summer and pasture irrigation will help insure quick revegetation.

Instream construction in the Smith River would occur during the spring with the setting of the self-supported intake screen. It is anticipated that in-water work will take less than one day, and be confined to a period of 4-8 hours in the spring when flows are low.

BMPs would be implemented during construction activities to protect water quality in Smith River. Although it is not anticipated that the placement of the diversion in the riparian area will result in a significant impact, or a net loss of wetlands and riparian area, the Dairy proposes planting of a small portion of the riparian area which is devoid of trees and tangled with Himalayan Blackberry and grasses. Compliance with the terms of a Nationwide Permit, Water Quality Certification, and Streambed Alteration Agreement, if necessary, and implementation of Mitigation Measure 3, which proposes mitigation for the potential impact to riparian habitat, would reduce impacts to less than significant.

Mitigation Measure 3: Comply with permit conditions and compensate for the potential loss of riparian area.

Although there is no permanent impact from the Project, the farm proposes to add enhancement measure to increase the amount of conifer in the area of the project (Figure 6). Pre-levee construction in 1964, the banks of the site were lined with a combination of riparian vegetation which included many species of hardwood and conifer. The Project does not propose permanent impacts to wetlands or riparian habitat, as can be seen from the wetland delineation conducted by Kyle Wear, Consulting Botanist and consulting biologist Frank Galea. The proposed enhancement site is located immediately adjacent to the project on the western edge within what would have traditionally been riparian habitat. It lies above the MHHW mark and does not have wetland associated plants or soils. The proposed enhancement site is currently devoid of conifer and hardwood trees, and is dominated by invasive reed canary grass, Himalayan Black berry and other invasives which have choked out any chance for larger trees to establish.

Recommendations by the Farms botanist Kyle Wear will be followed to ensure the least impact to farmed wetland pastures as described in his attached report.



Figure 6. Proposed mitigation area for planting of riparian vegetation (hardwoods and conifers).

- The Farm will comply with the terms of a Clean Water Act Section 404 permit issued by the U.S. Army Corps of Engineers (Corps) and Section 401 water quality certification issued by the North Coast Regional Water Quality Control Board (NCRWQCB) for activities involving the potential discharge of fill material into the Smith River. For activities in and along Smith River, the Farm will also comply with terms of a Streambed Alteration Agreement with the CDFW. All terms and conditions of the required permits and authorizations will be implemented.
- All waters of the United States temporarily affected by project construction will be restored as close as practicable to their original conditions.

d) **Potentially Significant Unless Mitigation Incorporated.** The project area does not encompass any fish or wildlife nursery sites, however the diversion could interfere with the movement of any native resident or migratory fish species on the mainstem of the river. To that end, the National Marine Fisheries Service was consulted through Section 7 to determine potential impacts to listed salmonids, including the Southern Oregon/Northern California Coast Coho Salmon. As the diversion will operate in late spring through the end of September annually, there is the potential for migratory young-of-the-year salmonids to be sucked up or impinged by the diversion when passing along the river bank where there is cover created by riparian vegetation or depth associated with bank full widths of the river.

The riparian right granted at statehood and recorded with the California Water Quality Control Board allows the Farm to the natural flow of water. The Smith River

has sufficient monthly river flow to accommodate the Farm's riparian right in the spring and summer. It is estimated the farm will use 0.015 cfs/acre, or about 5.5 CFS for the 355 acres of irrigated pasture. During the month with the least streamflow, September, CDFW's water availability at 80 percent exceedance rates indicates Smith River will have 338 cfs available at low flows. A change in streamflow from 338 cfs to 332.48 cfs (a 1.6 percent reduction), from full use of the diversion, yields a minimal 0.001 percent reduction, or 0.02 inch in surface water elevation in the affected reach.

While a systematic survey to determine channel morphologies has not been undertaken, field observations and limited measurements suggest that the typical channel morphology of the reach where the diversion is located is relatively flat, with little change in topography, maintaining a rather shallow cross section across the river which is over a hundred feet wide at this location. Vegetation at channel margins naturally breaks abruptly and little vegetation grows in the open water areas. Smith River appears to align with Rosgen stream type "C"—Low gradient, meandering, point-bar, riffle/pool, alluvial channels with broad, well-defined floodplains. Broad valleys w/terraces, in association with floodplains, alluvial soils. Slightly entrenched with well-defined meandering channels. Riffle/pool bed morphology. (<https://cfpub.epa.gov/watertrain/pdf/04tab1.pdf>). This well-established channel system has "U" shaped channel morphology. For stream type "C" ("U" shaped channels), aquatic habitat area is highly correlated with surface water area, despite fluctuations in surface water elevation. Under these conditions, the small reduction in surface water elevation (0.02 inch) anticipated with 5.52 cfs water withdrawal results in a very small change in the available aquatic habitat area in the action area.

In consultation with the NMFS, a screen which would prevent the suction or impingement of young-of-the-year salmonids was required. Following the NOAA draft technical memorandum (2011), a fish screen was designed by Hendricks screens to meet NOAA Fisheries West Coast Region Anadromous Passage Design and 2011 NMFS *Anadromous Salmonid Passage Facility Design*, which includes an active intake screen equipped with proven cleaning capability (automatically cleaned as frequently as necessary to keep the screen free of any debris that will restrict flow area).

Mitigation Measure 1: Implement measures to prevent impingement and sucking of young-of the year salmonids, including SONC Coho salmon fry.

To mitigate for the potentially significant impacts to migratory fish, the intake screen will be an active¹ drum style fish screen, set perpendicular to the flow, and in alignment with the natural riverbank slope, with the following specifications:

- Approach velocity shall be less than or equal to 0.3 foot per second (ft/sec) for active screens.
- Maximum screen angle shall be 45 degrees.
- Slotted screen shall be used, with openings less than or equal to approximately 0.69 inch.
- Material of screen shall be corrosion resistant.

The screen area will be approximately 8.0 square feet, which will yield an approach velocity less than the applicable NMFS fish screening criteria (2.0 cubic feet per

second [cfs] per 0.4 ft/sec = 5 square feet; a larger screen has an approach velocity less than 0.4 ft/sec). The anticipated low water level of the Smith River determines the top elevation of the inlet screen. The lowest river level reported by the Stover Engineering (2021) was 5 feet. The mean reported by USGS was 7.6 feet. Based on these values, the top of the screen will be set at elevation of 7 feet.

With the following measures taken, mitigation incorporated through the use of a Hendricks Screen, the project will not interfere substantially with the movement of any resident or migratory fish species within the Smith River Corridor.

- e) **No Impact.** The project area is not within the boundaries of any local resource protection areas.
- f) **No Impact.** No known, adopted, state, regional, or federal habitat conservation plans or Natural Community Conservation Plans apply within the project area.

V. CULTURAL RESOURCES — Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		
d) Disturb any human remains, including those interred outside of formal cemeteries?		X		
e) Cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Public Resources Code Section 21074?		X		

Environmental Setting

Prior to the large-scale emigration of Euro-Americans beginning in the middle decades of the nineteenth century, Native American groups identified as the Tolowa, Yurok and Karuk inhabited the Smith River Basin and regions to the east and north. Although cultural group boundaries were almost never as well-defined as depicted in historic references and today's literature, the project area was almost certainly associated with Tolowa.

Archived records, historical documents, and prior investigations did not indicate the presence of any known archaeological or historical resources within or immediately adjacent to the project area (Phase 1 Cultural Resource Inventory Report, DZC July 2022 and November 2022). Research indicates that two cultural resources sites that reflect prehistoric and historic-era occupation of the general area have been documented outside 0.5 mile of the project area. Field surveys did not reveal any intact prehistoric or historic era resources in the project area, however conversations with Elk Valley Rancheria and Tolowa Dee-Ni indicate that the mouth of

Rowdy Creek and the Smith River just upstream of the project location was a traditional fishing location. According to the consulting archaeologist from DCZ, the archaeological investigation followed standard procedures with regard to transecting the study area on foot and investigating all visible mineral surfaces but also encountered constraints. Visual survey included road cuts, gopher/rodent holes, or any other exposed soils. However, the grass and briars were very lush and dense, hindering visibility.

Based on the historic use of this area by the Tolowa Dee-ni' Tribe, as well as the challenges to accurately determine whether tribal cultural resources or human remains may be encountered during subsurface exploration or trenching activities, the project impacts to tribal cultural resources has been designated as "potentially significant impact unless mitigation incorporated".

Discussion of Impacts

a, b, c, d, and e Potentially Significant Unless Mitigation Incorporated. Tribal coordination with the Tolowa Dee-ni' Nation and Elk Valley Rancheria indicated a moderate to high sensitivity for pre-contact resources in the vicinity of the project. In 2022, an archaeological survey (Survey) was conducted within the area where trenching is proposed. Survey results were negative.

Mitigation Measure 4: Implement construction measures to reduce impacts to Cultural Resources

1. The applicant's archaeologist shall develop an Tribal and Cultural Resource Monitoring Plan in consultation with representatives for the Tolowa Dee-ni' Tribe that details what actions will occur to: (1) minimize the risk of potentially significant impacts to tribal resources or buried human remains before excavation and trenching activities are initiated, (2) investigate excavated materials to verify that tribal resources or buried human remains have not been encountered, and (3) respond in the event that tribal resources or human remains are encountered during excavation activities. The Excavation Plan shall be submitted to the Regional Water Board for review and approval prior to implementation.
2. The Tribal and Cultural Resource Monitoring Plan shall will implement protection and preservation measures outlined in Attachment E of the General Waste Discharge Requirements For Dairies Within the North Coast Region", Order No. R1-2019-0001, "Tribal Cultural Resources Mitigation Program".
3. A historical human remains detection canine (HHRDC) survey shall be employed along the proposed trenching and excavation areas to identify human remains in advance of trenching activities. If the HHRDC survey identifies potential human remains within the area of the proposed trenching activities, the project shall be redesigned to avoid the detection site unless alternative actions to protect or remove and relocate the remains are agreed upon by the appropriate representative(s) of the Tolowa Dee-ni' Nation.
4. An unclassified HHRDC survey report shall be developed by the applicant's archaeologist or the HHRDC contractor, in advance of any excavation and trenching activities and shall be provided to the Tolowa Dee-ni' Nation and the Regional Water Board at least 30 days prior to commencing trenching activities, to inform project implementation to avoid potential impacts to human remains.
5. At least 30 days prior to commencing trenching activities, the Farm, or its Representatives, will notify interested Tribes that trenching and excavation is planned, and to arrange for Tribal Monitors to be on-site during these activities.
6. Construction crews will cease work if cultural resources are discovered.
7. Upon discovery, the Farm, or its Representatives, will notify Del Norte County and/or other appropriate entities to allow the tribal cultural resources to be evaluated and properly treated if necessary.
8. The Farm will comply with Del Norte County's standard provisions to ensure that any potential

impacts on tribal cultural resources are less than significant.

VI. GEOLOGY AND SOILS— Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? ii. Strong seismic ground shaking? iii. Seismic-related ground failure, including liquefaction? iv. Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?				X
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?				X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X

Environmental Setting

Del Norte County mountainous terrain associated with the Coastal Range and the Klamath Mountains dominates County's geography. Elevation ranges from sea level to over 6,400 feet. Although much of the county is made up of steep terrain, there are small patches of flat terrain along the coast and in isolated mountain valleys. There are 37 miles of coastline in the county, forming a coastal zone that covers approximately 51,000 acres (80 square miles). A broad coastal plain can be found in the northwest portion of the county with the western edge of the Klamath Mountains as its easterly boundary. Rising abruptly from the coastal plain, the Klamath Mountains extend north into Oregon and are situated between the Cascade Range to the east and the Coast Range to the north. In Del Norte County, granite forms the nucleus of the mountain ranges and over it is a mantle of metamorphic rocks. In the western portion of the country sedimentary rocks prevail. Intrusive serpentine carries the copper and chrome iron deposits. Quartz occurs in small seams and veins. Copper occurs in lenses of a rich concentration, either as free metal or in sulphides. The slates carry many thin seams of quartz, sometimes rich in gold, and no doubt the erosion of these formations is responsible for the gold concentrated in the streams.

Seismicity is defined as the geographic and historical distribution of earthquake activity. Seismic activity may result in geologic and seismic hazards, including seismically induced fault displacement and rupture, ground shaking, liquefaction, lateral spreading, landslides, avalanches, and structural hazards. Based on historical seismic activity and fault and seismic hazards mapping nearly 40 earthquakes of magnitude 6 or larger have affected Northern California in the past 150 years." (Earthquake Country Alliance) Although they are infrequent, earthquakes of greater than magnitude 6 have occurred in Del Norte County, including a magnitude 6.7 in 1873, with damage centered on Crescent City. The Mendocino Triple Junction to the south has produced several large quakes including magnitude 7.2 in 1992. A magnitude 9+ Cascadia Subduction Zone (CSZ) earthquake shook Del Norte County in 1700, and a subsequent tsunami inundated low-lying coastal areas. The CSZ stretches over 600 miles from Northern California to British Columbia. Earthquakes generated by subduction zones are responsible for the largest earthquakes in the world, known as megathrust quake.

Soils found at the site are a composite of Rowdy loam and consist of the Arcata series. This soil formed in an old marine terrace that slopes gently westward to the Pacific Ocean. Slopes are zero to three percent. The surface layer is loam to clay loam with an effective depth of 26 inches. This soil is well drained and has good permeability. Runoff is slow and hazards of erosion are very small.

Discussion of Impacts

a) **No Impact.**

The project area is not near any faults, and the potential for aseismic-related ground failure or landslides is considered low based on soil and geologic conditions. The proposed project would not expose people to seismic-related soil or geologic hazards.

b) **No Impact.**

The proposed project requires trenching. Earthen material removed during trenching will be used to backfill exposed trenches. Exposed soils are expected to revegetate within 1-2 years. No additional earthwork is proposed. Trenching will occur predominantly on pastureland that is flat and/or low gradient. Erosion and loss of topsoil is not anticipated. However, the Dairy will implement erosion control BMPs to reduce the potential for erosion. Implementation of these BMPs would ensure that impacts from soil erosion are less than significant.

c, d) **No Impact.**

The soil types and geologic units underlying the project area are not considered unstable or expansive. The soils in the project area are not at risk of landslides, liquefaction, or collapse; the topography of the project area is generally flat and would not create risks from unstable or expansive soil or geologic conditions.

e) **No Impact**

The Project does not involve construction of septic tanks or wastewater disposal systems.

VII. HAZARDS AND HAZARDOUS MATERIALS — Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

Environmental Setting

Hazardous materials and waste are substances that are considered toxic, ignitable, corrosive, or reactive (as defined in California Code of Regulations, Title 22, Sections 66261.20-66261.24). The release of hazardous materials into the environment could contaminate soils, surface water, and groundwater supplies. Under Government Code Section 65962.5, the California Department of Toxic Substances Control maintains a list of hazardous substance sites. This list, referred to as the “Cortese List,” includes CALSITE hazardous material sites, sites with leaking underground storage tanks, and landfills with evidence of groundwater contamination. In addition, the Del Norte County Environmental Health Division maintains records of toxic or hazardous material incidents, and the North Coast RWQCB maintains files on hazardous material sites. Most hazardous materials regulation and enforcement in Del Norte County are overseen by the Del Norte County Environmental Health Division, which refers large cases of hazardous materials contamination or violations to the NCRWQCB or the State Department of

Toxic Substances Control. Other agencies, such as the federal and state Occupational Safety and Health Administrations, may also be involved when issues related to hazardous materials arise.

No hazardous substance sites from the Cortese List have been identified in the project area (California Department of Toxic Substances Control 2016).

The project area lies within the State Responsibility Area with regards to fire protection, which means the State provides fire response services. No federal lands are in the project area. Fire hazard can be defined as the amount, condition, and structure of fuels that will burn if a fire enters an area. The project area is designated by the California Department of Forestry and Fire Protection (2023) as having a low fire hazard safety rating.

Discussion of Impacts

- a, b) **Less Than Significant Impact.** Small amounts of hazardous materials would be used during construction activities for equipment maintenance (e.g., fuel and solvents) if necessary, however maintenance is not planned except within the area of trenching. Hazardous materials will not be stored in staging areas, as it is unlikely a staging area will be needed. Use of hazardous materials would be limited to the construction phase and would comply with applicable local, state, and federal standards associated with the handling and storage of hazardous materials. Construction measures and BMPs would reduce the potential for a hazardous materials spill to occur and would minimize impacts if a spill were to happen.
- c, d, e, f) **No Impact.** The project area is not within 0.25 mile of a school or an airport. The proposed project would not exacerbate the conditions at any waste clean-up site and would not expose people to hazards associated with airports or hazardous waste site activity.
- g) **No Impact.** The proposed project would not interfere with an adopted emergency response plan or emergency evacuation plan.
- h) **No Impact.** Due to the low fire hazard rating of the surrounding area, construction activities, particularly the use of construction equipment have the potential to result in the ignition of a fire. The fire hazard rating of the area would not be altered by the project, and the project would not expose people and/or structures to a significant risk of loss, injury, or death involving wildland fires over the long term.

VIII. HYDROLOGY AND WATER QUALITY — Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off- site?			X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			X	
e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?			X	
f) Otherwise substantially degrade water quality?				X
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation of seiche, tsunami, or mudflow?				X

Environmental Setting

The Smith River is an important free-flowing National Wild and Scenic River in the extreme northwestern area of the Region. This 700 square mile watershed provides substantial habitat for a variety of plant, wildlife, and fish species. By average discharge, the Smith is the largest river system in California that flows freely along its entire course. The highly variable annual flow is approximately 3,746 cu ft/s (106.1 m³/s), with an average monthly high of 8,432 cu ft/s (238.8 m³/s) in January, and an average low of 336 cu ft/s (9.5 m³/s) in September. The all-time highest flow was 228,000 cubic feet per second (6,500 m³/s) on December 22, 1964 during the Christmas flood of 1964. Mean annual precipitation is 90 inches.

The Smith River plain covers about 12 square miles (40,434 acres) and receives an average of 73 inches of rainfall annually. The Smith River has been rated a Very Low priority basin for ground water by the Department of Water Resources, which have a rate of 12.31. Smith River Plain is a(n) basin with approximately 1346 wells, of which approximately 19 are water supply wells. Groundwater accounts for approximately 64.81 percent of the basin's water supply. The federal government is the major land manager in the Smith River Watershed with parts of the Six Rivers National Forest and Siskiyou National Forest accounting for just under half of the watershed area. Over 98 percent of the watershed area is covered by forest. Aquatic habitat conditions over the entire watershed are good, but below their potential (USFS 2001). USFS (2001) rates watershed fish habitat quality as moderate.

Existing Beneficial Uses of the Smith River include Municipal and Domestic Supply (MUN); Agricultural Supply (AGR); Industrial Service Supply (IND); Freshwater Replenishment (FRSH); Navigation (NAV); Water Contact Recreation (REC 1); Non-Contact Water Recreation (REC 2); Commercial and Sport Fishing (COMM); Cold Freshwater Habitat (COLD); Wildlife Habitat (WILD); Rare, Threatened, or Endangered Species (RARE); Marine Habitat (MAR); Migration of Aquatic Organisms (MIGR); Spawning, Reproduction, and/or Early Development (SPWN); Estuarine Habitat (EST); and Native American Culture (CUL). Potential Beneficial Uses include Industrial Process Supply (PRO) and Aquaculture (AQUA). The Smith River is not listed as an impaired water body under Section 303(d) of the Clean Water Act (North Coast Regional Water Quality Control Board). The project area diversion site is inside the 100-year floodplain and tsunami run-up zone (Federal Emergency Management Agency 2008).

Water Quality

The predominant land uses in the Smith River Plain are cattle ranching and dairy production (approximately 60% of the land base), followed by commercial Easter lily bulb (*Lilium longiflorum*) production (25%) (NMFS 2014; NCRWQCB 2015; Parish and Garwood 2015).

Four anadromous salmonid species inhabit the Smith River: Fall-run Chinook Salmon (*Oncorhynchus tshawytscha*), Coho Salmon (*O. kisutch*), steelhead (*O. mykiss*), and Coastal Cutthroat Trout (*O. clarki clarki*). The primary stressors limiting Smith River anadromous salmonids "include impaired estuary/mainstem function and lack of floodplain and channel structure" as identified in the final recovery plan for SONCC Coho Salmon (NMFS 2014). Impaired water quality was identified as a "high" stressor for all life phases and especially juvenile salmonids (NMFS 2014). According to NMFS (2014), "Agriculture in the lower watershed and around the estuary has been, and continues to be the greatest contributor to loss and degradation of Coho Salmon habitat."

Various pesticides and fungicides are used during lily bulb propagation. Residues from both

can enter stream channels via stormwater runoff draining from fields, resulting in degraded water quality conditions (in both surface and ground waters) and negative impacts to salmonids and other aquatic species in the Smith River Plain (NCRWQCB 2018; NMFS & California Department of Fish and Wildlife (CDFW) 2018).

Salinity monitoring (Figure 7) found saltwater intrusion to reach 4.75 miles upstream of the mouth during summer low flow conditions. Comparatively the saltwater intrusion was minimal during the winter season indicating the majority of the lower Smith River estuary is freshwater during the winter months. The area of the Smith River where salinities remain under the summer salinity thresholds but provide brackish water, from the Cattle Crossing riffle on the Farm to the Bailey Hole crossing riffle, is channelized and lacks off-channel habitat features.

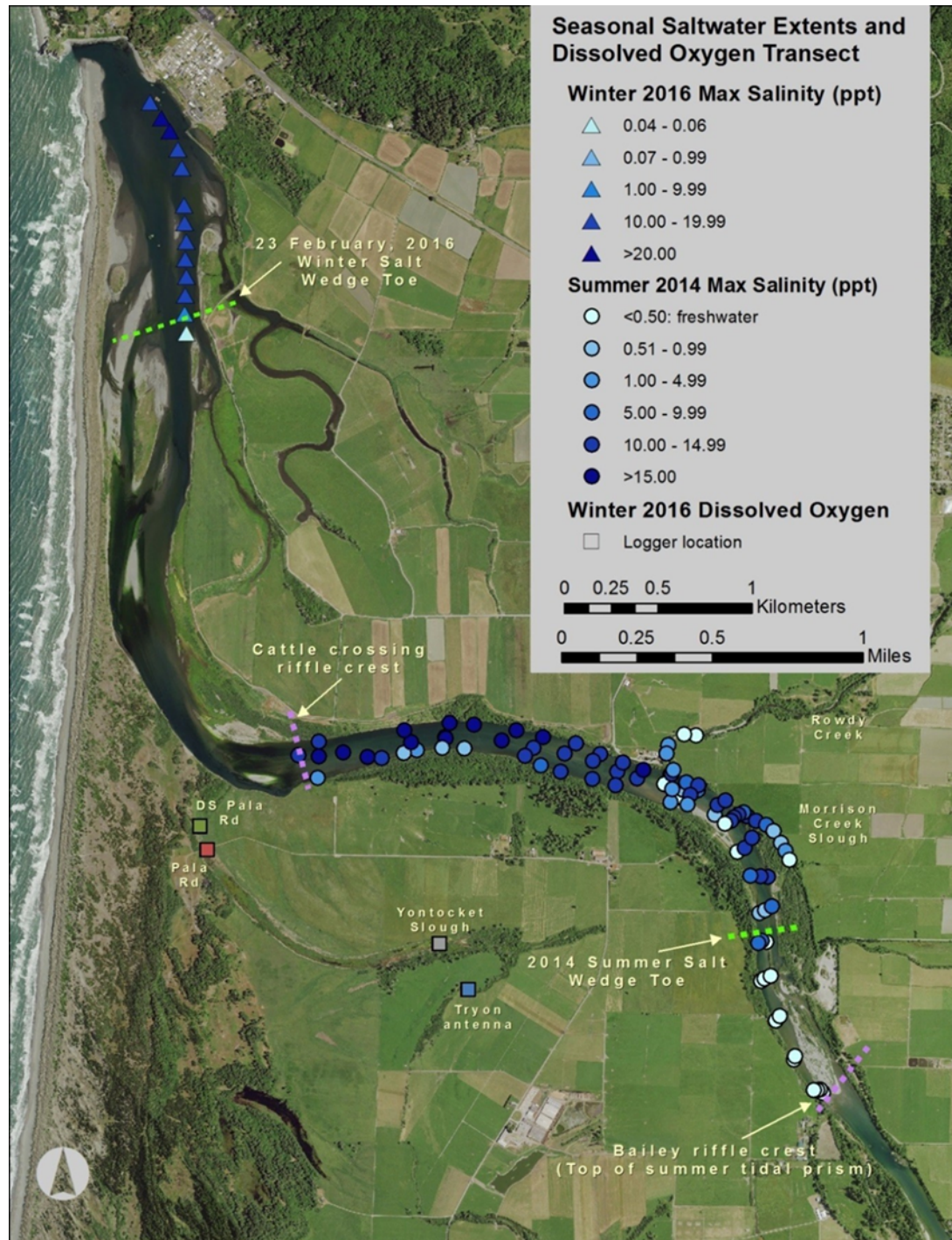


Figure 7. Maximum salinity concentration at each sample location in Rowdy Creek, Morrison slough, and the mainstem Smith River. Sampling was conducted during the summer of 2014 and the winter of 2016. Approximate locations of the salt wedge toe at high tide are identified for the summer and winter seasons. The maximum observed freshwater tidal prism at high tide extended up to the Bailey Riffle rest during summer of 2014. Dissolved oxygen probe locations in Yontocket Slough are also identified on the map (SRA 2016).

Temperature

Water temperature influences aquatic habitat quality for fish species because they are ectothermic animals: their metabolism, behavior, and development and growth all depend on temperature. Coho have specific thermal niche preferences, and choose thermal habitats that support maximum growth rate and reproduction. A change in water temperature might alter stream metabolism and rates of nutrient cycling, reduce dissolved oxygen concentrations, increase toxicity of certain environmental contaminants, or cause local extinctions (Lee et al. 2018). The temperature at which coho experiences thermal stress depends on the temperature to which the fish is acclimated and development life-stage (Boyd and Kasper 2007).

Riparian areas have a direct influence on the microclimate and water temperature of the adjacent aquatic environment. Water temperature impacts development, migration, and growth of salmonids and other aquatic species. The natural ability of the riparian zone to regulate stream temperature varies based on riparian width, stream size, vegetation type, hillslope, aspect, and local climate (Osborne and Kovacic 1993). A study comparing stream temperatures adjacent to agricultural land without riparian vegetation to stream temperatures adjacent to a hardwood forest found that in the agricultural stream, weekly maximum temperatures were 9°F to 22.5°F higher and minimum temperatures were 7°F cooler than the forested stream (Green 1950 in Karr and Schlosser 1977). Brosofske et al. (1997) found that a buffer of 147-ft minimum is needed to maintain a natural microclimate along streams in coniferous forests.

The majority of the Smith River basin has water temperature within the tolerable range for salmonids throughout the year, particularly in the winter months. However, areas of the mainstem have exceeded 22° C during the summer months (Garwood et al 2014, Parish and Garwood 2015, Parish 2016), a temperature considered to be above the tolerance of juvenile coho salmon (Welsh et al. 2001). Water temperature standards stipulate that a 7-day moving average of the daily maximum temperature shall not exceed 18 degrees Centigrade (°C), equivalent to about 64 degrees Fahrenheit (°F). Temperatures ranging from 17.8°C to 22°C (64°F to 72°F) cause decreased or lack of metabolic energy for coho feeding, growth or reproductive behavior, increased exposure to pathogens, decreased food supply, and increased competition from warm water tolerant species (Brett 1952). Studies have been within the main stem of the Smith; however, the action area is poorly represented in the data.

Sediment and Turbidity

Sediment budget and yield investigations within catchments and tributaries of these northern California coastal watersheds have shown that the rates of sediment supply are related to the region's tectonics, lithology, climate, and history of land use (Kelsey, 1980; Nolan et al., 1995; Madej and Ozaki, 1996; Ziemer, 1998). Grazing and logging are primary land uses in the region, and wide- spread clearing and road building occurred in the region during the 1950s to 1970s as a result of mechanized logging (Best, 1995; Leit- hold et al., 2005). These land-use changes increased sediment supplies to these rivers by at least several fold over longer-term background rates and likely increased the rates of stormwater discharge (Kelsey, 1980; Ziemer et al., 1991; Best et al., 1995; Nolan and Janda, 1995). The combination of these land use changes and the intense rainfall of December 1964 resulted in record flooding, widespread river channel morphologic change, and the greatest sediment discharge rates recorded for these rivers (Anderson, 1970; Brown and Ritter, 1971; Waananen et al., 1971; Brown, 1973; Knott, 1974; Kelsey, 1980; Lisle, 1982; Madej and Ozaki, 1996, 2009).

Sediment production with these northern California watersheds is primarily attributed to erosion

of hillslopes, with lesser contributions from channel banks (Brown and Ritter, 1971; Kelsey, 1980; Madej and Ozaki, 1996). Mass movements, such as slumps and landslides, in the hillslopes provide the primary contributions to the sediment yield of these watersheds, and the occurrence of these mass movements increases with heavy precipitation and land changes related to logging (Brown and Ritter, 1971; Kelsey, 1980).

River suspended-sediment concentrations ranged from 1 to over 10,000 mg/L. The highest measured concentrations were observed in the four most southern rivers (Trinity, Redwood, Mad and Eel), while the concentrations in the Smith and Klamath (both the mouth and upstream stations) were measurably lower. All rivers exhibited positive relationships between suspended sediment concentrations and river discharge as shown by the fitted LOWESS relationships. The root mean squared errors (r.m.s.e.) about the LOWESS relationships ranged between 0.28 and 0.39 log₁₀ units, and the highest variability about these relationships occurred for Redwood Creek and the Eel River, which had the largest and longest sample records. The North Coast Regional Water Quality Control Board in 2013 and 2015 implemented a monitoring program to further understanding of water and sediment quality conditions in the tributaries to the Smith River that flow through the Smith River Plain. The monitoring program analyzed surface water samples collected during both wet and dry seasons focusing on standard water quality measures temperature, dissolved oxygen, conductivity, and pH), nutrients, various pesticides, dissolved copper and zinc, and toxicity.

The surface water and sediment quality portions of the study were funded by the Regional Water Board's Surface Water Ambient Monitoring Program (SWAMP) as a special Regional Water Board study. Standard water quality measures were observed to be in compliance with water quality objectives, and within acceptable limits for a healthy aquatic ecosystem. Sample site selection incorporated the protocols established by SWAMP (DFG-MPSL 2007 and MPSL 2009). The data collection was consistent with the Statewide SWAMP Stream Pollution Trends Monitoring (SPoT) Program (SWAMP 2008b) and the Regional Water Board's Status and Trends Monitoring Program.

Table 7. Lower Rowdy Creek suspended sediment concentrations.

Sample Site	Date Range	Number of Samples	Suspended Sediment, Mg/L
Lower Rowdy Creek	October 2013-2015	5	ND-604

Discussion of Impacts

- a) **Less than Significant Impact.** Construction activities to install mainline through trenching would disturb and expose soil on slopes and terraces that drain away from the Smith River. Construction activities will occur during the dry season. If rainfall were to occur, the bulk of sediment-laden runoff would drain into the pasture and not the Smith River. In addition, the significant amount of pasture vegetation and grass vegetation will keep any disturbed soils contained until they revegetated shortly after construction. During ground disturbing activities, the farm will implement erosion control BMPs.
- b) **No Impact.** The proposed project would not require the use of groundwater or affect groundwater recharge in the project area.

c, d, e) **Less Than Significant Impact.** The proposed project would require the seasonal diversion to facilitate irrigating the 355 acres of Parcel 103-020-074. Alteration of drainage patterns in the river would occur from May through September. The Dairy will withdraw water from Smith River under the terms of their riparian diversion and 401 Regional Water Board permitting.

Table 8 gives the Dairy's projected minimum and maximum water withdrawal rates by month under a full-use scenario. Water withdrawal would be greatest during June through September. The full-use maximum water withdrawal would peak at 6.68 cfs (1.29 mgd), the maximum allowed under the Ranch's Smith River Riparian water right.

The Dairy's withdrawal for irrigation will only occur when the salt wedge is below the intake site. Studies conducted by Marish and Garwood (2016) show the saltwater wedge extends far past the project site during summer low flows (Figure 9). Tide will be monitored to insure during periods of high tide when salinity changes, the pump is shut off. The dairy will discontinue water withdrawal when salinity levels during these high tide's events reach above 1 ppt.

Table 8. Minimum and Maximum Water Withdrawals from Smith River by month

Month	Raw Water Withdrawal			
	Gallons per Day		Gallons per Minute	
	Minimum	Maximum	Minimum	Maximum
Jan	0	0	0	0
Feb	0	0	0	0
Mar	0	0	0	0
Apr	0	0	0	0
May	2,500,000	4,320,000	1,950	3,000
Jun	2,500,000	4,320,000	1,950	3,000
Jul	2,500,000	4,320,000	1,950	3,000
Aug	2,500,000	4,320,000	1,950	3,000
Sep	2,500,000	4,320,000	1,950	3,000
Oct	0	0	0	0
Nov	0	0	0	0
Dec	0	0	0	0

The diversion of water under riparian right shall not exceed a total of 6.68 cfs. There is no defined volume which can be pump, however the demand for irrigation on pasture can be easily calculated based on evapotranspiration rates for the region. The Farm recognizes that exercising their right to withdraw up to 6.68 cfs from the Smith River Creek may affect critical habitat for Oregon Coast coho salmon. It is anticipated the Smith River has water available at 80 percent exceedance during August (338 cfs), after considering natural flow and accounting for instream flow requirements and agricultural uses which would make the diversion less than significant.

- f) **No Impact.** The proposed project would not have other water quality impacts beyond those discussed under item a) above and would not contribute runoff to a storm drain system.
- g, h, i, j) **No Impact.** The proposed project is inside the 100-year flood zone and tsunami run up area. The division structure, which has been in place since 1969 has persisted through events of significant scale however it has not been through a 100-year event. The structures would not expose people or structures to risks from flooding or inundation by floodwaters, tsunami, or mudflows.

IX. LAND USE AND PLANNING – Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

Environmental Setting

The project area is in unincorporated Del Norte County approximately 1.5 miles southwest of the townsite of Smit River, California. Land uses in the vicinity of the project area include residential uses and agriculture. The project area is designated Agricultural Exclusive. The Del Norte County General Plan provides policies and implementation strategies for management of the resources in the unincorporated area, and the Zoning Ordinance provides direction on allowable uses and facilities in each zone. No habitat conservation plans have been adopted for the area.

Discussion of Impacts

- a) **No Impact.** The proposed project involves the replacement of an existing diversion. The project would not physically divide an established community.
- b, c) **No Impact.** The proposed project would not conflict with the Del Norte County Local Coastal Plan. The proposed water diversion replacement is consistent with the agricultural uses in the Local Coastal Plan. No habitat conservation plans, or natural community conservation plans have been adopted for the project area.

X. MINERAL RESOURCES — Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				X

Environmental Setting

Del Norte County in general is considered a mining region capable of producing a wide variety of mineral resources. Metallic mineral deposits, including gold, are considered the most significant extractive mineral resources. The project area is not in an important mineral resource area, as depicted in the Local Coastal Plan (Del Norte County 2001).

Discussion of Impacts

- a, b) **No Impact.** The project area is not in or adjacent to any important mineral resource areas identified by the State of California or Del Norte County. Water Diversion replacement would not affect the availability of mineral resources of value to the state or region.

XI. NOISE — Would the project result in:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport of public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

Environmental Setting

The Del Norte County General Plan was recent revised to identify noise element policies that regulate construction- related noise and establish acceptable noise levels and standards. County Code 7.07 requires mitigation to keep non-transportation noise levels below acceptable standards identified in the General Plan. "Agricultural" means commercial activities consistent with the definition of "Agriculture" in section 20.04.20, on land zoned for such activities. 7.07.060 Special Provisions exempts certain activities from the ordinance, including the following activities shall be exempted from the provisions of this article: "All mechanical devices, apparatus or equipment which are utilized for the protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions."

Ambient noise levels in the project area and vicinity are primarily from vehicular traffic along Sarina Road and the Smith River. Sensitive receptors in the vicinity include Farm Worker housing at Trails End. The closest residence to the project area is approximately 900 feet away.

Table 9. Typical Construction-Related Noise Levels

Construction Equipment	Typical Noise Level (dB) 50 Feet from
Backhoe	88
Boom Truck	64
Water Pump/Compressor	80-85

Source: CSA, ASME

Discussion of Impacts

- a, d) **Less Than Significant Impact.** Construction activities would increase noise levels temporarily in the vicinity of the project area and may periodically exceed the noise standards in the County Code. Actual noise levels would depend on the type of construction equipment involved, distance to the source of the noise, time of day, and similar factors. Noise levels for typical construction equipment that may be used are listed in Table 9.

Few sensitive receptors are present near the project area. Construction would temporarily increase noise levels in the project area, ranging from about 64 to 88 dB at 50 feet from the activity. Residences more than 800 feet from the project area would be exposed to less noise as noise levels would be expected to attenuate (decrease) with distance from the source.

Some noise would be masked by intervening vegetation and topography between the residences and construction activities. In addition, and as above, 7.07.060 Special Provisions exempts certain activities from the ordinance, including the following activities shall be exempted from the provisions of this article: "All mechanical devices, apparatus or equipment which are utilized for the protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions." Construction noise would be temporary and would not substantially increase noise levels in the project area for extended periods.

- b) **No Impact.** Blasting will not occur in the project area.

- c) **No Impact.** The proposed project would not increase ambient noise levels in and around the project area because the electric motor and compressor motor would not be significantly louder than the river and be muffled by the dense vegetation within the riparian area which both visual obstructs viewing of the pumping structure and noise it can produce.
- e, f) **No Impact.** The project area is not near a public or private airport or airstrip. The proposed project would not expose people to noise from airport activities.

XII. POPULATION AND HOUSING — Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?				X

Environmental Setting

The project area is in unincorporated Del Norte County near the community of Smith River. Farm Labor Housing is within 900 feet of the project vicinity, however, due to the location of the levee and densely wooded area, there will be no visibility of the project once construction is completed.

Discussion of Impacts

- a-c) **No Impact.** The proposed project includes a water diversion replacement and associated trenching to install a mainline for water conveyance during construction. The proposed project would not displace any housing or people.

XIII. PUBLIC SERVICES — Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: Fire Protection? Police Protection? Schools? Parks? Other Public Facilities?				X
--	--	--	--	----------

Environmental Setting

The proposed project is in a rural area of Del Norte County. Fire and police protection services are provided by the Smith River Fire Protection District and Del Norte County Sheriff, respectively. These service providers may use Sarina Road to access residential areas near project area. No schools, parks, or other public facilities occur in the immediate vicinity. The County maintains public facilities, including Sarina Road.

Discussion of Impact

- a) **No Impact.** The proposed project would not include elements that would increase the human population or presence in the area, nor would it be associated with population changes or new residential development. Therefore, additional governmental facilities would not be needed for fire protection, police protection, schools, parks, or other public facilities as a direct or indirect result of the project. The project would not improve access to the Smith River, as it is on private land.

XIV. RECREATION — Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Environmental Setting

No designated recreation or park facilities occur in or near the project area.

Discussion of Impacts

- a, b) **No Impact.** Diversion replacement and construction activities would not affect the use of existing agricultural lands and the use of the Smith River. There are no public recreational facilities in the project area as both banks of the Smith River are located on private farmland. The proposed project does not include the construction of any recreational facilities, nor would it require the expansion of existing recreational facilities.

XV. TRANSPORTATION/TRAFFIC — Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to- capacity ratio on roads, or congestion at intersections)?				X
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				X
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e) Result in inadequate emergency access?				X
f) Result in inadequate parking capacity?				X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X

Environmental Setting

Sarina Road is a two-lane dead-end road that terminates at Trails End, a trailer part on the Farm used for Farm Labor Housing. Average daily traffic count of about 20 trips near the project area. No designated bike routes pass through the project area, and none are proposed along Sarina Road as it is a dead-end route. The nearest major crossroad, First Street in Smith River, is approximately 1.0 mile to the northeast of the project area.

Discussion of Impacts

- a, b) **No Impact.** The proposed project is not designed to increase vehicle trips on Sarina Road. Traffic control measures are not needed during the construction phase as they do not impact Sarina Road. Project implementation would have no impact on traffic loads and level of service in the area.
- c) **No Impact.** The proposed project would not affect air traffic patterns and would have no effect on air traffic levels or safety.
- d) **No Impact.** The proposed project would not increase hazards due to a design feature or incompatible uses.
- e) **No Impact.** Construction activities would not require temporary road closure of Sarina

Road.

- f) **No Impact.** The proposed project does not involve on-street or off-street parking.
- g) **No Impact.** The proposed project would not conflict with adopted policies for transportation.

XVI. UTILITIES AND SERVICE SYSTEMS — Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X

Environmental Setting

Utilities located within and adjacent to the project area include an underground domestic waterline along the westside of Sarina Road which feeds the Trails End Mobile Home and Lodge complex of Farm Labor housing and utility poles which service Trails End and the existing water diversion site which was installed in 1969. There is no landfills in Del Norte County which are utilized and the closest is in White City, in Jackson County Oregon 102 miles from the project area. Del Norte County Transfer Station located on the South side of Crescent City on Elk Valley Road, about 20 miles south of the project area.

Discussion of Impacts

- a, b, d, e) **No Impact.** The proposed project would not generate wastewater or require a new water supply. The riparian right being utilized for the diversion is not a new source

of water or facility, but a fish friendly replacement of the old diversion which allows for the irrigation of pasture on the 355 acres of APN 103-020-074. No new wastewater or domestic water facilities would be constructed or needed as part of the project.

- c) **No Impact.** No roadside drainage would be modified or improved as part of the project as Sarina Road is not needed.
- f, g) **No Impact.** No solid waste will be generated by the proposed project as the structure for placement of the water diversion facility is existing, and only requires placement of equipment on the structure to begin operations.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?)		X		
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Discussion

- a) **Potentially Significant Unless Mitigation Incorporated.** Construction-related activities and the seasonal operation of the diversion could result in impacts on sensitive biological resources. Tribal Monitors will be on-site during trenching activities. This, and other mitigation measures, will ensure no important cultural resources will be affected. Standard construction practices and mitigation measures described in this Initial Study would be implemented to ensure minimal impacts to biological resources.
- b) **Potentially Significant Unless Mitigation Incorporated.** The diversion of water from the Smith River has been ongoing since 1969 under a riparian right for parcel 103-020-074 and diversion improvements at the project site will mitigate the diversions impacts to species and the river to less than significant. It is not anticipated that diversions lower in the mainstem of the Smith River are contemplated as salinity levels during the peak irrigation season would be too high for irrigation of pasture grasses. With the implementation of BMPs described in the project description (Sections 2.3 and 2.4) and mitigation measures described for biological resources, the project would result in individually minor impacts and would not contribute substantially to cumulative impacts, resulting in a less than significant impact.
- c) **No Impacts.** The proposed project, particularly during the construction phase, would not result in impacts to human beings. Potential adverse which were considered related to air quality, noise, traffic, and wildfire hazards would not rise to a level of significance pre, during or post construction. The implementation of construction measures described in the project description (Sections 2.3 and 2.4) would ensure that construction-related impacts on human beings are less than

significant, and no long-term impacts are anticipated.

4. DETERMINATION

This Initial Study has determined that in the absence of mitigation the proposed project could have the potential to result in significant impacts associated with the factors checked below. Mitigation measures are identified in this Initial Study that would reduce all potentially significant impacts to less-than- significant levels.

	Aesthetics			Mineral Resources
	Agricultural Resources			Noise
	Air Quality			Population and Housing
X	Biological Resources			Public Services
X	Cultural Resources			Recreation
	Geology and Soils			Transportation/Traffic
	Hazards and Hazardous			Utilities
	Hydrology and Water Quality		X	Mandatory Findings of Significance

On the basis of this initial evaluation:

- ☐ We find that the project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.
- ☒ We find that although the project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ We find that the project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ We find that the project MAY have a "Potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ We find that although the project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date 4/27/2023

Name and Title: Valerie Quinto
Executive Officer
North Coast Regional Water Quality Control Board

5. REPORT PREPARATION AND REFERENCES

5.1. Report Preparation

Alexandre Dairy

Chris Howard

General Manager

Galea Biological Consulting

Frank Galea

Biologist

DZC Archaeology & Cultural Resource Consulting, LLC

Dimitra Zalarvis-Chase, M.A., RPA

Principal Investigator (Archaeology)

Kyle Wear

Botanist Consultant

North Coast Regional Water Quality Control Board

Report prepared by:

Ryan Bey, Senior Environmental Scientist, Supervisor Northern 401 Water Quality Certification Unit.

5.2. References

Adams, T. N. and K. Sullivan. 1990. The physics of forest stream heating: 1) A simple model. Weyerhaeuser Company, Tacoma, WA. Weyerhaeuser Tech. Rep. 044-5002/90/1. 30+ p.

Bennett, T., P. Roni, K. Denton, M. McHenry, and R. Moses. 2014. Nomads nor more: early juvenile coho salmon migrants contribute to the adult return. Ecology of Freshwater Fish 2014, doi:10.1111/eff. 12144.

Boyd, M. and B. Kasper. 2003. Analytical Methods for Dynamic Open Channel Heat and Mass Transfer: Methodology for Heat Source Model Version 7.0. February.
<<http://www.oregon.gov/deq/FilterDocs/heatsourcemanual.pdf>>

Brett, J. R. 1952. Temperature Tolerance in Young Pacific Salmon, Genus *Oncorhynchus*. J. Fish. Res. Bd. Can. 9(6): 265-323.

Burgette, R. J., R. J. Weldon II, and D. A. Schmidt. 2009. Interseismic uplift rates for western Oregon and along-strike variation in locking on the Cascadia subduction zone. Journal of Geophysical Research 114: B01408. 24 p.

Bustard D., D. Narver. 1975. Aspects of the winter ecology of juvenile coho salmon (*Oncorhynchus kisutch*) and steelhead trout (*Salmo gairdneri*). Journal of the Fisheries Research Board of Canada 32: 667-680.

California Air Resources Board. 2013. Area Designation Maps: State and National. Available online at:
<<http://www.arb.ca.gov/design/adm/adm.htm>>. Accessed March 2023.

- California Department of Conservation. 2012. Farmland Mapping and Monitoring Program. Available online at: <http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx>>. Accessed March 2023.
- California Department of Forestry and Fire Protection. 2022. Fire Hazard Severity Zone in SRA. Available online at: <https://osfm.fire.ca.gov/fire-hazard-severity-zones-maps-2022/>>. Accessed March 2023.
- California Department of Toxic Substances Control. 2023. Cortese List data resources. Available online at: <https://dtsc.ca.gov/dtscs-cortese-list/>>. Accessed March 2023.
- California Department of Transportation. 2011. California scenic highway mapping system: Del Norte County. Updated May 5, 2015. Available online at: http://www.dot.ca.gov/hq/LandArch/16 livability/scenic_highways/scenic_hwy.htm>. Accessed March 2023.
- California Department of Resources Recycling and Recovery. 2023. Solid Waste Information System: Del Norte Recovery Systems. Available online at: <https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Statewide/ExportByCounty>>. Accessed March 2023.
- Caltrans. 2015. Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish. California Department of Transportation, Sacramento, CA. November.
- Cramer, M. L. (ed.). 2012. Stream Habitat Restoration Guidelines. Washington Departments of Fish and Wildlife, Natural Resources, Transportation and Ecology, Washington State Recreation and Conservation Office, Puget Sound Partnership, and the U.S. Fish and Wildlife Service, Olympia, WA.
- Cramer, Michelle, Ken Bates, Dale Miller, Karin Boyd, Lisa Fotherby, Peter Skidmore, and Todd Hoitsma. 2002. Integrated Streambank Protection Guidelines 2003. Washington State Aquatic Habitat Guidelines Program, Olympia, WA.
- Del Norte County. 1983. 1983 Del Norte General Plan – Coastal Element. Accessed March 2023.
- Del Norte County. 2020. Parcel Data Information System. Available online at: <https://dnco.maps.arcgis.com/apps/webappviewer/index.html?id=52c9895399ff484a8b476d066172543e>>. Accessed March 2023.
- Del Norte County Transportation Commission. 2020. Del Norte County Regional Transportation Plan – 2020 Update. Available online at: <https://static1.squarespace.com/static/5dd6d94a5271b568ade1392f/t/6037fde0d1d0ce5860c170e9/1614282224624/Final+Del+Norte+RTP+v2-compressed.pdf>>. Accessed March 2023.
- Del Norte County Transportation Commission. 2017. Del Norte County Active Transportation Plan – 2020 Update. Available online at: <https://static1.squarespace.com/static/57f8232ce58c6208092f73fa/t/59bc53bbf9a61ebc1fe41716/1505514488524/DNLTC+ATP+Update+2017.pdf>>. Accessed March

2023.

- Edinger, [John E.](#), [David W. Duttweiler](#), and [John C. Geyer](#). 1968. The response of water temperatures to meteorological conditions. *Water Resources Research* 4(5): 1137-1143.
- Jones, K., T. Cornwell, D. Bottom, L. Campbell, and S. Stein. 2014. The contribution of estuary-resident life histories to the return of adult *Oncohynchus kisutch*. *Journal of Fish Biology* 85: 52-80.
- Koski, K. 2009. The fate of coho salmon nomads: the story of an estuarine-rearing strategy promoting resilience. *Ecology and Society* 14 (1): 4.
- Lee, Ha Nuel, Kwan Leung, and Hyemin Lee. 2018. Water Temperature. Ohio State University Chemistry REEL Program. <<https://research.cbc.osu.edu/reel/research-modules/environmental-chemistry/methods/water-temperature>>
- Leonard, L. J., C. A. Currie, S. Mazzotti, and R. D. Hyndman. 2010. Rupture area and displacement of past Cascadia great earthquakes from coastal coseismic subsidence. *GSA Bulletin* 122 (11/12): 1951-1968. November/December 2010.
- Lindley, S.T., R.S. Schick, E. Mora, P.B. Adams, J.J. Anderson, S. Greene, C. Hanson, B. May, D. McEwan, R.B. Macfarlane, C. Swanson, and J.G. Williams. 2007. Framework for assessing the viability of threatened and endangered Chinook salmon and steelhead in the Sacramento-San Joaquin Basin, San Francisco Estuary and Watershed Science 5: Article 4.
- McElhany, P., M. H. Ruckelshaus, M. J. Ford, T. C. Wainwright, and E. P. Bjorkstedt. 2000. Viable salmonid populations and the recovery of evolutionarily significant units. U.S. Department of Commerce, Seattle, WA. NOAA Technical Memorandum NMFS-NWFSC-42. 156 p.
- Miller, B. and S. Sadro. 2003. Residence time and seasonal movements of juvenile coho salmon in the ecotone and lower estuary of Winchester Creek, South Slough, Oregon. *Transactions of the American Fisheries Society* 132(3): 546-559.
- Mizuno, E. 1998. The physical habitat and biological communities of the Smith River estuary, California. [Thesis] Humboldt State University, Arcata, CA. 154p.
- Mote, P. W., A. K. Snover, S. Capalbo, S. D. Eigenbrode, P. Glick, J. Littell, R. R. Raymondi, and W. S. Reeder. 2014. Chapter 21: Northwest. P. 487-513. *In*: J. M. Melillo, T. C. Richmond, and G. W. Yohe (eds.). *Climate Change Impacts in the United States: The Third National Climate Assessment*. U.S. Global Change Research Program, Washington, DC.
- National Marine Fisheries Service (NMFS). 1996. Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Watershed Scale. National Marine Fisheries Service, Environmental and Technical Services Division, Habitat Conservation Branch. August.

National Marine Fisheries Service (NMFS). 1997. Review of the Status of Chinook Salmon (*Oncorhynchus tshawytscha*) from Washington, Oregon, California, and Idaho under the U.S. Endangered Species Act. National Marine Fisheries Service, West Coast Chinook Salmon Biological Review Team. 448 p.

National Marine Fisheries Service (NMFS). 2011. Anadromous Salmonid Fish Facility Design, Chapter 11. National Marine Fisheries Service, Northwest Region, Portland, OR.

National Marine Fisheries Service (NMFS). 2014. Endangered Species Act – Section 7 Programmatic Biological Opinion & Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Revisions to Standard Local Operating Procedures for Revised Standard Local Operating Procedures for Endangered Species to Administer Maintenance or Improvement of Stormwater, Transportation, and Utility Actions Authorized or Carried Out by the U.S. Army Corps of Engineers in Oregon (SLOPES for Stormwater, Transportation or Utilities). NOAA National Marine Fisheries Service, Northwest Region, Portland, OR. NWR-2013-10411. March 14.

National Marine Fisheries Service (NMFS). 2014. Recovery Plan for Southern Oregon/Northern California Coast Coho Salmon (*Oncorhynchus kisutch*). National Marine Fisheries Service, Arcata, CA. Accessed 10-27-2022 at <https://www.fisheries.noaa.gov/resource/document/final-recovery-plan-southern-oregon-northern-california-coast-evolutionarily>

National Marine Fisheries Service (NMFS). 2016a. 2016 Status Reviews of Listed Salmon & Steelhead. National Marine Fisheries Service, Portland, Oregon. Accessed July 26, 2016. http://www.westcoast.fisheries.noaa.gov/publications/status_reviews/salmon_steelhead/2016_status_review.html

National Marine Fisheries Service (NMFS). 2016b. Recovery plan for Oregon Coast coho salmon evolutionarily significant unit. National Marine Fisheries Service, West Coast Region, Portland, OR.

National Marine Fisheries Service (NMFS). 2018. Endangered Species Act Section 7 Programmatic Conference and Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Standard Local Operating Procedures for Endangered Species to fund actions under the Stafford Act Authorized or Carried Out by the Federal Emergency Management Agency in Oregon, Washington, and Idaho (FEMA Endangered Species Programmatic). NOAA National Marine Fisheries Service, West Coast Region, Portland, OR. WCR-2016-6048. January 9, 2018.

National Marine Fisheries Service (NMFS) & California Department of Fish and Wildlife (CDFW). 2018. Smith River Plain Dissolved Copper Monitoring Report. Accessed online 10-27-2022 at <http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=184902>

Northwest Fisheries Science Center (NWFSC). 2015. Status review update for Pacific salmon and steelhead listed under the Endangered Species Act: Pacific Northwest.

- Northwest Fisheries Science Center, Seattle, WA.
- National Oceanic and Atmospheric Administration (NMFS). 2008. Listing endangered and threatened species: Notification of finding on a petition to list Pacific eulachon as an endangered or threatened species under the Endangered Species Act. Federal Register (Docket No. 080229343-8355-01; 21 March 2008) 73(49):13185–13189.
- National Oceanic and Atmospheric Administration (NMFS). 2014. Final Recovery Plan for the Southern Oregon/Northern California Coast Evolutionarily Significant Unit of Coho Salmon (*Oncorhynchus kisutch*). National Marine Fisheries Service. Arcata, CA. 1841p.
- Nickelson, T., J. Rodgers, S. Johnson, and M. Solazzi. 1992. Seasonal changes in habitat use by juvenile coho salmon (*Oncorhynchus kisutch*) in Oregon coastal streams. Canadian Journal of Fisheries and Aquatic Sciences 49 (4): 783-789.
- North Coast Regional Water Quality Control Board (NCRWQCB). 2015. Smith River Plain 2013 Surface Water and Sediment Interim Monitoring Report. Prepared by R. Fadness, for the Surface Water Ambient Monitoring Program, Report # SWAMP-DR-RB1-2015-0001. Accessed 9-5-2022 at
<https://www.waterboards.ca.gov/northcoast/water_issues/programs/agricultural_lands/pdf/151209/Smith_River_Plain_2013_Surface_Water_and_Sediment_Interim_Monitoring_Report.pdf>
- North Coast Regional Water Quality Control Board (NCRWQCB). 2018. Smith River Plain: Surface Water and Sediment Monitoring Final Report. Prepared by: North Coast Region, Surface Water Ambient Monitoring Program (SWAMP). SWAMP-MR-RB1-2018-0001. Final Report.
- Online Weather Atlas accessed 2020. Available at:
<<https://www.weather-us.com/en/california-usa/smith-river-climate#rainfall>>
- North Coast Regional Water Quality Control Board. 2018. USEPA Approved California 2018 Section 303(d) List of impaired Waters. Available online at:
<https://www.waterboards.ca.gov/rwqcb2/water_issues/programs/TMDLs/303dlist.html>. Accessed March 2023.
- North Coast Unified Air Quality Management District. 1995. Particulate Matter (PM10) Attainment Plan.
<<https://ncuaqmd.specialdistrict.org/files/6f1ad639b/NCUAQMD+Attainment+Plan+5-95.pdf>> Assessed March 2023
- North Coast Unified Air Quality Management District. 2002. Ambient Air Quality Standards.
<<https://www.ncuaqmd.org/ambient-air-quality-standards>>Assessed March 2023
- Federal Emergency Management Agency. 2022. FEMA Map Service Center, Current FEMA Issued Flood Maps: Del Norte County, California, Available online at:
<<https://www.fema.gov/case-study/del-norte-county-studying-flood-hazards>>. Accessed March 2023.

- Natural Resources Conservation Service. 2018. Web soil survey. Del Norte County, California.
Available online at: <<http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>>
Accessed March 2023.
- Osborne L., D. Kovacic. 1993. Riparian vegetated buffer strips in water-quality restoration and stream management. *Freshwater Biology* 29: 243-258.
- Otto, R. 1971. Effects of salinity on the survival and growth of pre-smolt coho salmon (*Onchorhynchus kisutch*). *Journal of the Fisheries Research Board of Canada* 28: 343-349.
- Parish, M. and J. Garwood. 2015. Distribution of Juvenile Salmonids and Seasonally Available Aquatic Habitats within the Lower Smith River Basin and Estuary, Del Norte County, California. Final Report to the California Department of Fish and Wildlife, Fisheries Grants Restoration Program, Contract: P1310518. Smith River Alliance, Crescent City, CA.
- Parish, M. and J. Garwood. 2016. Winter Distributions, Movements, and Habitat use by Juvenile Salmonids throughout the Lower Smith River Basin and Estuary, Del Norte County, California. Final Report to the California Department of Fish and Wildlife, Fisheries Restoration Grants Program, Contract: P1410545. Smith River Alliance, Crescent City, CA. 51p.
- Parthre, Debra J. 2004. Fish and invertebrate ecology of Tillas and Islas Sloughs, Smith River estuary, Del Norte County, California. Thesis (M.S.)--Humboldt State University, Natural Resources: Fisheries Biology.
- Oregon Department of Fish and Wildlife (ODFW). 2005. 2005 Oregon Native Fish Status Report. Volume II: Assessment Methods & Population Results. Coho SMUs. Oregon Department of Fish and Wildlife, Portland, OR.
<<http://www.dfw.state.or.us/fish/ONFSR/report.asp>>
- Oregon Department of Fish and Wildlife (ODFW). 2017. Estimated Abundance of Wild Adult Coho Spawners in the Oregon Coast Coho ESU. Oregon Department of Fish and Wildlife, Corvallis Research Lab, Corvallis, OR. <<https://odfw-oasis.forestry.oregonstate.edu/sites/default/files/2023-01/2017CohoAnnualReport.pdf>> June 12, 2017.
- Quinones, R. 2003. Habitat utilization and foraging habits of juvenile salmonids (*Oncorhynchus* spp.) in the Smith River estuary, California. [Thesis] Humboldt State University, Arcata, CA. 96p.
- Quinones, R. and Mulligan, 2005. Habitat Use by Juvenile Salmonids in the Smith River Estuary, California. [*Transactions of the American Fisheries Society*](#) 134(5):1147-115
- Pacific Fishery Management Council (PFMC). 1999. Amendment 14 to the Pacific coast salmon plan. Appendix A: Description and Identification of Essential Fish Habitat, Adverse Impacts and Recommended Conservation Measures for Salmon. Pacific Fishery Management Council, Portland, OR.
- Stout, H. A., P. W. Lawson, D. L. Bottom, T. D. Cooney, M. J. Ford, C. E. Jordan, R. J. Kope, L. M. Kruzic, G. R. Pess, G. H. Reeves, M. D. Scheuerell, T. C. Wainwright,

R. S. Waples, E. Ward, L. A. Weitkamp, J. G. Williams, and T. H. Williams. 2012. Scientific conclusions of the status review for Oregon Coast coho salmon (*Oncorhynchus kisutch*). U.S. Department of Commerce. NOAA Technical Memorandum NMFS- NWFSC-118. 242 p.

StreamNet. 2018. Standard data query for listed fish species. Pacific States Marine Fisheries Commission, Portland, OR. Accessed February 14, 2018.
<<http://www.streamnet.org/>>

U.S. Environmental Protection Agency (EPA). 2017. Sole Source Aquifers. U.S. Environmental Protection Agency, Washington, DC. Accessed March 20, 2017.

U.S. Department of Agriculture. 1974. Soil survey of Del Norte Area, California: U.S. Department of Agriculture, Soil Conservation Service.

U.S. Geological Survey. 2014. Hydrologic Unit Map (Based on USGS Water Supply Paper 2294). U.S. Department of the Interior, Geological Survey. Available online at: <<http://water.usgs.gov/GIS/regions.html>>. Accessed March 2023.

Wallace, M. 2006. Juvenile salmonid use of Freshwater Slough and tidal portions of Feshwater Creek, Humboldt Bay, California. 2003 Annual Report. Final Report for contract P0210710. March 2006. 32p.

Western Regional Climate Center. 2014. Historical Climate Information. Available online at: <<http://www.wrcc.dri.edu/CLIMATEDATA.html>>. Accessed March 2023.

Wilson, Derek. 2016. Fish Biologist, Oregon Department of Fish and Wildlife, Newport Marine Resources Program, 2040 SE Marine Science Drive, Newport, OR 97365. June 24, 2016. Email correspondence with Adam Denlinger/Seal Rock Water District.

Zajanc, D. Residence of juvenile Chinook salmon, *Oncorhynchus tshawytscha*, in the Smith River estuary, California. [Thesis]. Humboldt State University, Arcata, CA. 91p.

Mitigation Monitoring and Reporting Plan
for the
Smith River Water Diversion
Replacement Project

North Coast Regional Water
Quality Control Board
Region 1
(CEQA Lead Agency)

June, 2024

Introduction

Purpose

The North Coast Regional Water Quality Control Board in consult with Galea Wildlife Consulting and Alexandre Dairy have prepared an Initial Study (IS) and Mitigated Negative Declaration (MND) for the proposed Smith River Water Diversion Replacement Project (Proposed project). The Farm is developing plans to replace the diversion and conveyance system. The proposed project is described in more detail in the IS/MND.

As described in the IS/MND, the project itself incorporates a number of measures to minimize adverse effects on the environment. The project incorporates design criteria to avoid species of special concern and their habitat. The following measures will be provisions of the 401 permit:

Table 1. Project Design Criteria, General Construction Measures, and BMPs in the Proposed Action

Criterion Identifier and Measure		Brief Description
Project Design Criteria		
1	Water Management & Conservation Plan	Water withdrawal will be consistent with the States 401 and Federal 404 permit, which promotes conservation practices and may include a curtailment plan for water shortages.
2	Fish Passage	The Farm has prepared a Biological Assessment in Consultation with the NOAA to ensure that the diversion facility will not impede passage of native migratory fish, per Federal and State law. 404 Permit will seek a Biological Opinion from NMFS to ensure fish passage or other related
General Construction Measures		
3	Project Design	Minimize the extent and duration of earthwork.
4	In-Water Work Timing	Perform in-water work during dates recommended by NMFS, 404 permit.
5	Work Area Isolation	Isolate any work area within the wetted channel from the active river whenever ESA-listed fish are reasonably certain to be present. However, it is not anticipated given the design and placement of the screen that this will be necessary step, unless requested by 404 permit.

6	Fish Screens	Conform to the fish screen criteria and guidelines found in Chapter 11 of the <i>Anadromous Salmonid Fish Facility Design</i> manual (NMFS 2021), including: Screen Approach Velocity: The approach velocity must not exceed 0.30 ft/s for active screens. Using this approach velocity will minimize screen contact and/or impingement of juvenile fish. Effective Screen Area: The minimum effective screen area must be calculated by dividing the maximum screened flow by the allowable approach velocity (0.40 ft/s for active screens). Slotted Screens: Slotted screen face openings must not exceed approximately 1/16 inch in the narrow direction. Material: The screen material must be corrosion resistant and sufficiently durable to maintain a smooth uniform surface with long-term use. Other Components: Other components of the screen facility (such as seals) must not include gaps greater than the maximum screen opening defined above. <u>Open Area: The percent open area for any screen material</u>
7	Project Site Layout and Flagging	Before ground disturbance, clearly mark with flagging or survey marking paint sensitive areas, access routes, and staging, storage, and stockpile areas, as necessary.
8	Staging, Storage, and Stockpile Areas	Designate and use staging, storage, and stockpile areas if necessary to ensure that construction materials do not enter waterbodies. Do not dispose of non-native materials in the functional floodplain. Restore temporarily disturbed pervious areas. It is not anticipated that the use of construction materials will be necessary other than potentially adding a support to the wooden structure and the metal plate for diversion equipment.
9	Pollution and Erosion Control	Obtain and comply with the conditions of the NPDES construction stormwater discharge (401) permit from the North Coast Regional Water Quality Control Board.
10	Hazardous Material Safety	Take precautions to prevent spills or exposures to hazardous materials during construction.
11	Equipment, Vehicles, and Power Tools	Minimize damage to natural vegetation and permeable soils. Clean equipment to prevent leaks or debris entering waterbodies.
12	Fish Passage	Provide fish passage for any ESA-listed fish likely to be present in the action area during construction or operation. It is however anticipated that passage will not be an issue for the placement of infrastructure or its operation.

Criterion Identifier and Measure		Brief Description
13	Actions that Require Post-Construction Stormwater Management	Provide stormwater management for the increase in the impervious area within the project area, including access roads and other waterproof structures if necessary, and potential changes in stormwater conveyance. For water quality, provide onsite infiltration as first priority. As the structure already exists, it is not anticipated that stormwater management will be needed, as construction activities will occur in the spring and summer.
14	Site Restoration	Restore any significant disturbance of riparian vegetation, soils, streambanks, or stream channel. Remove waste. Loosen compacted soil areas.
15	Revegetation	Establish native vegetation by planting and seeding disturbed areas, if necessary, immediately after construction is completed.
Types of Action		
16	Streambank Restoration	Restore damaged the streambank at the water intake to a natural slope, pattern, and profile suitable for establishment of permanent woody vegetation using guidance from Cramer et al. (2002) and Cramer (2012) if necessary. As the site has been disturbed since 1969 and used annual to divert water, it has been well maintained and vegetation management and streambank restoration is not anticipated to be necessary.

The IS/MND also identified four mitigation measures that are required to reduce potentially significant impacts on biological resources to levels that are less than significant. This Mitigation Monitoring and Reporting Plan (MMRP) describes a plan for ensuring that these mitigation measures are implemented in conjunction with the project. The North Coast Regional Water Quality Control Board (NCRWQCB), as the lead agency under the California Environmental Quality Act (CEQA), is responsible for overseeing the implementation and administration of this MMRP. The Farm will designate a staff member to manage the MMRP. The duties of the staff member responsible for plan coordination will include conducting routine inspections and reporting activities, coordinating with the project construction and maintenance supervisor, and coordinating with regulatory agencies.

Regulatory Framework

California Public Resources Code Section 21081.6 and California Code of Regulations Title 14, Chapter 3, Section 15097 require public agencies to adopt MMRPs when they approve projects under a MND. The MMRPs must be adopted when a public agency makes its findings pursuant to CEQA so that the mitigation requirements can be made conditions of project approval.

Format of This Plan

The MMRP identifies the impacts and mitigation measures from the project IS/MND. Each impact discussed within this MMRP is numbered based on the sequence in which it is discussed in the IS/MND. The impact number corresponds with the specific mitigation measures. Mitigation measures are followed by an implementation description, the criteria

used to determine the effectiveness of the mitigation, the timeframe for implementation, and the party responsible for monitoring the implementation of the measure.

Implementation of mitigation measures is the responsibility of the farm owner/operator. Verification of successful implementation of mitigation measures. Verification of successful implementation of mitigation measures is ultimately the responsibility of the NCWQCB; during construction the farm owner and/or operator is also responsible for verifying and reporting that necessary mitigation measures have been implemented.

Impacts and Associated Monitoring or Reporting Measures

Impact 1: Construction of Water Screen Device to Prevent Take of Threatened and Endangered Species.

Mitigation Measure 1: *Implement measures to prevent impingement and sucking of young-of-the year salmonids, including SONC Coho salmon fry.*

1. *The NMFS will require the Dairy to implement the following measure to prevent the mortality of young-of-the-year coho salmon:*
 - a. *Purchase of Hendricks Screen with the follow specifications: Approach velocity shall be less than or equal to 0.3 foot per second (ft/sec) for active screens.*
 - b. *Maximum screen angle shall be 45 degrees.*
 - c. *Slotted screen shall be used, with openings less than or equal to approximately 0.69 inch.*
 - d. *Material of screen shall be corrosion resistant.*

Implementation: The Farm will ensure implementation of avoidance measures described above.

Effectiveness Criteria: The Farm will prepare and keep on file documentation verifying the implementation of the above referenced measures.

Timing: Construction Phase

**Verified
By:**

Farm Project
Manager

Date: _____

Impact 2: Potential impacts on Northern red-legged frog.

Mitigation Measure 2: *Implement construction measures to reduce impacts on Northern red-legged frog.*

The Farm and/or its contractor will implement the following measures to avoid or minimize project- related impacts on Northern red-legged frog:

1. Environmental awareness training will be conducted by a qualified biologist prior to onset of the work for construction personnel to brief them on how to recognize northern red-legged frog, and other special-status animals that may occur in the project area.
2. To avoid potential injury or mortality to Northern red-legged frogs using vegetated areas for cover along the Smith River, initial vegetation clearing (i.e., removal of small trees, shrubs, brush, and tall dense grasses) along Smith will be done manually using hand tools (e.g., chainsaw, lopper, weed wacker). However, it is not anticipated any native vegetation, including trees and scrubs will be cut or removed on the proposed alignment of the conveyance line.
3. To avoid potential injury or mortality to northern red-legged frog using vegetated areas for cover along dairy pastures, trenching will only occur during the spring and summer months when vegetation is dry and during daylight hours when frogs are significantly less active.
4. If northern red-legged frogs are encountered in the project area during construction and will be harmed by construction activities, work will stop in the area and the dairy's biologist will relocate the frog to an adjacent riparian area.

Implementation: The Farm will retain the services of a qualified biologist to train construction crews and relocate special-status animals, if needed, and will ensure the farm operators implement the measures described above.

Effectiveness Criteria: The Farm will prepare and keep on file documentation verifying the implementation of the above referenced measures.

Timing: Pre-Construction Phase and Construction Phase

Verified By: _____ **Date:** _____
Farm Project
Manager

Impact 3: Potential impacts on Riparian habitat.

Mitigation Measure 3: Comply with permit conditions and compensate for the potential loss of riparian area.

Although there is no permanent impact from the Project, the farm proposes to add enhancement measure to increase the amount of conifer in the area of the project (Figure 6). Pre-levee construction in 1964, the banks of the site were lined with a combination of riparian vegetation which included many species of hardwood and conifer. The Project does not propose impacts to wetlands or riparian habitat which is permanent, as can be seen from the wetland delineation conducted by Galea Biological Consulting, However the proposed enhancement site is located immediately adjacent to the project on the western edge within what would have traditionally been riparian habitat. It lies above the MHHW mark and does not have wetland associated plants or soils. The proposed enhancement site is currently devoid of conifer and hardwood trees, and is dominated by invasive reed canary grass, Himalayan Black berry and other invasives which have choked out any chance for larger trees to establish.



Figure 6. Proposed mitigation area for planting of riparian vegetation (hardwoods and conifers).

1. The Farm will comply with the terms of a Clean Water Act Section 404 permit issued by the U.S. Army Corps of Engineers (Corps) and Section 401 water quality certification issued by the North Coast Regional Water Quality Control Board (NCRWQCB) for activities involving the potential discharge of fill material into the Smith River. For activities in and along Smith River, the Farm will also comply with terms of a Streambed Alteration Agreement with the CDFW. All terms and conditions of the required permits and

authorizations will be implemented.

2. All waters of the United States temporarily affected by project construction will be restored as close as practicable to their original conditions.
3. The Farm will retain a qualified botanist to conduct a botanical surveys and wetland survey prior to construction activities. The surveys will focus on potential riparian habitat in the project area, which primarily includes the area adjacent to the project site on the levee of the Smith River.
4. The Farm will plant an area of approximately 1,000 square feet with native Sitka Spruce and Big Leaf Maple. Trees will be planted in a 5x5 spacing and protected on the perimeter of the area by fencing to insure browse or damage by animals occurs during growing periods.

Implementation: The Farm will conduct surveys and plant an area to enhance both conifer and hardwood re-establishment on the banks of the levee.

Effectiveness Criteria: The Farm will prepare and keep on file documentation verifying the implementation of the above referenced enhancement.

Timing: Post-Construction Phase

Verified By

Farm Project Manager

Date: _____

Impact 4: Potential impacts to Cultural Resources.

Mitigation Measure 4: Implement construction measures to reduce impacts to Cultural Resources

The Farm and/or its contractor will implement the following measures to avoid or minimize project- related impacts to Cultural Resources:

1. The applicant's archaeologist shall develop an Tribal and Cultural Resource Monitoring Plan in consultation with representatives for the Tolowa Dee-ni' Tribe that details what actions will occur to: (1) minimize the risk of potentially significant impacts to tribal resources or buried human remains before excavation and trenching activities are initiated, (2) investigate excavated materials to verify that tribal resources or buried human remains have not been encountered, and (3) respond in the event that tribal resources or human remains are encountered during excavation activities. The Excavation Plan shall be submitted to the Regional Water Board for review and approval prior to implementation.
2. The Tribal and Cultural Resource Monitoring Plan will implement protection and preservation measures outlined in Attachment E of the General Waste Discharge Requirements For Dairies Within the North Coast Region", Order No. R1-2019-0001, "Tribal Cultural Resources Mitigation Program".
3. A historical human remains detection canine (HHRDC) survey shall be employed along the proposed trenching and excavation areas to identify human remains in advance of trenching activities. If the HHRDC survey identifies potential human remains within the area of the proposed trenching activities, the project shall be redesigned to avoid the detection site unless alternative actions to protect or remove and relocate the remains are agreed upon by the appropriate representative(s) of the Tolowa Dee-ni' Nation.
4. An unclassified HHRDC survey report shall be developed by the applicant's archaeologist or the HHRDC contractor, in advance of any excavation and trenching activities and shall be provided to the Tolowa Dee-ni' Nation and the Regional Water Board at least 30 days prior to commencing trenching activities, to inform project implementation to avoid potential impacts to human remains.
5. At least 30 days prior to commencing trenching activities, the Farm, or its Representatives, will notify interested Tribes that trenching and excavation is planned, and to arrange for Tribal Monitors to be on-site during these activities.
6. Construction crews will cease work if cultural resources are discovered.
7. Upon discovery, the Farm, or its Representatives, will notify Del Norte County and/or other appropriate entities to allow the tribal cultural resources to be evaluated and properly treated if necessary.
8. The Farm will comply with Del Norte County's standard provisions including County ordinance 16.04.31 to mitigate any potential impacts on tribal cultural resources.

Implementation: The Farm will notify interested Tribes at least 30 days prior to commencing trenching activities to arrange to be present on-site during such activities.

Effectiveness Criteria: The Farm will prepare and keep on file documentation verifying the implementation of the above referenced measures.

Timing: Pre-Construction Phase and Construction Phase

**Verified
By:**

Farm Project
Manager

Date: _____



North Coast Regional Water Quality Control Board

June 14, 2024

In the Matter of

Water Quality Certification

for the

Smith River Water Diversion Project,

WDID No. 1A22047WNDN

APPLICANT: Steven Westbrook, Reservation Ranch
RECEIVING WATER: Smith River
HYDROLOGIC UNIT: Smith River Hydrologic Unit 103.00
COUNTY: Del Norte
Files: Smith River Water Diversion Project, CW-880599,
WDID 1A22047WNDN

FINDINGS BY THE EXECUTIVE OFFICER:

1. On April 11, 2022, Chris Howard, on behalf of Steven Westbrook and Reservation Ranch (Applicant), submitted a draft application for water quality certification (certification) under section 401 of the Clean Water Act (33 U.S.C. § 1341) with the California Regional Water Quality Control Board, North Coast Region (Regional Water Board) for the Smith River Water Diversion Project (Project). On May 4, 2022, the Application was deemed incomplete. Supplemental information was submitted to the Regional Water Board on August 17, 2022. On September 15, 2022, the Application was still deemed incomplete. On September 20, 2022, a revised Application was submitted to the Regional Water Board. On October 13, 2022, the Application was deemed incomplete. Supplemental information was submitted to the Regional Water Board on

HECTOR BEDOLLA, CHAIR | VALERIE QUINTO, EXECUTIVE OFFICER

December 1, 2022, and January 4, 2023. On January 5, 2023, the Application was deemed complete and on January 6, 2023, a formal request for certification was submitted to the Regional Water Board. Pursuant to section 401 of the Clean Water Act, the Regional Water Board must take action on the certification request within a Reasonable Period of Time (RPOT). A RPOT was established by the United States Army Corps of Engineers (USACE), but it was extended to June 13, 2024, because of substantial design revisions. On May 22, 2024, Chris Howard officially withdrew the 401 Water Quality Certification Application. On May 23, 2024, Chris Howard resubmitted the Application. On May 31, 2024, the Regional Water Board determined the Application was incomplete. On May 31, 2024, supplemental information was submitted to the Regional Water Board, and on June 6, 2024, the Application was deemed complete. A request for certification was submitted to the Regional Water Board on June 13, 2024. Consistent with the Memorandum of Understanding between the California State Water Resource Control Board, effective April 29, 2024, the Regional Water Quality Control Boards and the Regulatory Divisions of the Los Angeles, Sacramento, and San Francisco Districts of the United States Army Corps of Engineers, a RPOT of 180 calendar days to act on the certification request was established. The Project is located on Sarina Road in Del Norte County at latitude 41.913856°N, longitude 124.171403°W.

2. **Public Notice:** The Regional Water Board provided 21-day public notice of the application pursuant to Title 23, California Code of Regulations, Section 3858 on January 17, 2023, and posted information describing the Project on the Regional Water Board's website. A comment letter was submitted to the Regional Water Board on February 3, 2023. In response to the comment letter, the Regional Water Board determined that the project would not be eligible for a categorical exemption due to the potentially significant impacts to cultural resources, and therefore the agency determined that they would be Lead California Environmental Quality Act (CEQA) Agency. An additional Public Notice was provided on June 14 for this application and the associated Mitigated Negative Declaration.
3. **Receiving Waters:** The proposed Project would cause temporary impacts to the Smith River and wetlands within the Lower Smith River Hydrologic Unit (103.10). The Smith River discharges directly into the Pacific Ocean.
4. **Project Description:** The primary purpose of the Project is to replace an existing obsolete above-ground irrigation system (ditch) with a new underground pipeline system. Water withdrawn from the Smith River will irrigate pastures as part of ongoing dairy (cow) operation. Ground disturbance activities and irrigation are limited to APN 103-020-074 (approximately 355 acres). It is anticipated that the Project will reduce water withdrawals from approximately 8,000 gallons per minute (gpm) to approximately 2,500 gpm.

The project consists of the installation of a new intake structure, the installation of up to two centrifugal pumps located on an existing raised wooden platform in the riparian area immediately upslope of the intake structure, and the installation of approximately 4,500 linear feet of underground irrigation lines.

A boom truck operating on an existing road will be required to install the intake structure. The intake structure will likely not be used during winter periods, and it is anticipated it will be removed annually before periods of high river flow to reduce stress and potential damage. The pumps, panels, airburst systems that clean the intake screen and the electrical panels will be placed on an existing wooden platform. The platform will be decked with steel plates for mounting purposes. The new underground irrigation lines will be 16-18-inch diameter PVC pipe. The pipe will be placed in a 24-inch-wide and 48-inch-deep trench that is approximately 4,500 feet long. A small backhoe will dig the trench. The trench will be backfilled. Additionally, approximately 132 linear feet of pipe will be buried in an existing trench located within a levee.

The North Coast Regional Water Quality Control Board, as lead California Environmental Quality Act (CEQA) agency for the Project certified a Mitigated Negative Declaration (MND) for the Project. The MND outlines four mitigation measures addressing impacts to 1) Threatened and Endangered Species, 2) Northern red-legged frog, 3) Riparian habitat, and 4) Tribal Cultural Resources. Mitigation measures will be implemented at the site. The Project includes a Mitigation Monitoring and Reporting Plan, and the Applicant will submit documentation to the Regional Water Board confirming the implementation of mitigation measures.

5. **Construction Timing:** The Project is proposed to take place between May and October 15, 2024, or 2025. Construction is anticipated to take up to five months. If more time is needed to complete project activities, modification of the work period may be requested in writing on a week-by-week basis. Requests for a work period extension shall describe the extent of work already completed, detail the activities that remain to be completed, detail the time required to complete each of the remaining activities, provide photographs of both the current work completed and the proposed site for continued work, and include an assessment of additional biological impacts as a result of the work extension.
6. **Project Impacts:** The Project will result in temporary impacts to approximately 0.21 acres (4364 Linear Feet) of wetlands, 0.0002 acres (4 Linear Feet) of stream channel and 0.005 acres (132 Linear Feet) of riparian areas. There are no permanent impacts. Temporary impacts will be offset by a combination of active and passive restoration.
7. **Mitigation for Project Impacts:** The Project does not require compensatory mitigation.
8. **Avoidance and Minimization of Impacts:** The fish-friendly screen was approved by both state and federal Agencies. The shortest and most direct line for the new irrigation line was selected to minimize impacts to wetlands. The existing pad was selected to avoid additional impacts to the riparian area. Several mitigation measures were developed in response to the Public Notice letter submitted to the Regional Water Board and incorporated into the Mitigated Negative Declaration and the Project description, specifically to address concerns regarding tribal

cultural resources and the possibility of disturbing human remains during project activities. A Tier 2 alternatives analysis requirement per IV(a)(1)(g)(v) of the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* was submitted with the Application.

9. **Other Agency Actions:** The Applicant has applied for authorization from the United States Army Corps of Engineers (anticipate Nationwide Permit No. 7). The Applicant has obtained a Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife and applied to the California Coastal Commission for a Coastal Development Permit. The Applicant has also applied to the California State Lands Commission for a lease. The National Oceanic and Atmospheric Administration (NOAA) issued an Endangered Species Act Section 7(a)(2) Concurrence Letter and Magnusson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response on September 29, 2022.
10. **CEQA Compliance:** On June 14, 2024, the North Coast Regional Water Quality Control Board, as lead California Environmental Quality Act (CEQA) agency, submitted a Notice of Intent and to Adopt a Mitigated Negative Declaration pursuant to CEQA guidelines.
11. **Sediment TMDL Implementation Policy:** Pursuant to Regional Water Board Resolution R1-2004-0087, *Total Maximum Daily Load Implementation Policy Statement for Sediment-Impaired Receiving Waters within the North Coast Region* (Sediment TMDL Implementation Policy), the Executive Officer is directed to “rely on the use of all available authorities, including existing regulatory standards, and permitting and enforcement tools to more effectively and efficaciously pursue compliance with sediment-related standards by all dischargers of sediment waste.”
12. **Antidegradation Policy:** The federal antidegradation policy requires that state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California’s antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board’s *Water Quality Control Plan for the North Coast Region* (Basin Plan) implements, and incorporates by reference, both the state and federal antidegradation policies. This certification is consistent with applicable federal and state antidegradation policies, as it does not authorize the discharge of increased concentrations of pollutants or increased volumes of treated wastewater and does not otherwise authorize degradation of the waters affected by this Project.
14. Notwithstanding any determinations by the U.S. Army Corps or other federal agency made pursuant to 40 C.F.R. section 121.9, dischargers must comply with the entirety of this certification because this discharge is also regulated under State Water Resources Control Board Order No. 2003-0017-DWQ, “General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification,” which requires compliance with all conditions of this

water quality certification. The [Order](https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/go_wdr401regulated_projects.pdf) may be accessed at this web address:
(https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/go_wdr401regulated_projects.pdf)

Receiving Water: Smith River within the Smith River Hydrologic Unit (103.00)

Permanent impacts to waters of the state: None

Temporary impacts to waters of the state: 0.02 acres, 4364 linear feet of wetlands, 0.0002 acres, 4 linear feet of stream channel, and 0.005 acres, 132 linear feet of riparian area.

Latitude / Longitude: 41.913856°N/124.171403°W

Certification Expiration: est. July, 2029

Accordingly, based on its independent review of the record, the Regional Water Board certifies that the Johnson's Beach Seasonal Maintenance Project (WDID No. 1A22047WNDN) as described in the application will comply with sections 301, 302, 303, 306 and 307 of the Clean Water Act, and with applicable provisions of state law, provided that the Applicant complies with the following terms and conditions:

All conditions of this certification apply to the Applicant (and their employees) and all contractors (and their employees), sub-contractors (and their employees), and any other entity or agency that performs activities or work on the Project as related to this Water Quality Certification.

TERMS AND CONDITIONS:

Project-Specific Conditions

1. The Mitigated Negative Declaration (MND) contains four Mitigation Measures (Measures) that will be implemented during the Project. The Measures are:

Measure 1: Prevent Take of Threatened and Endangered Species.

- A fish-friendly screen approved by National Marine Fisheries will be installed to prevent impingement and entrapment of salmonids.
- The screen will be installed at a pre-approved angle.
- Screen slots will have openings less than or equal to 0.69 inches.
- The screen will be corrosion resistant.

Measure 2: Impacts to Northern red-legged frog.

- Northern red-legged frog identification training will be conducted prior to trenching and/or excavation.
- Initial Northern red-legged frog habitat/vegetation clearing will be conducted by hand.
- Trenching activities will be conducted during dry months when vegetation is thinner and frog activity less active.

- Activities will cease if Northern red-legged frogs are identified. A biologist will relocate all frogs before activities resume.

Measure 3: Impacts on Riparian habitat.

- Comply with terms and conditions of all permits associated with the Project.
- Restoration of riparian areas temporarily impacted by Project activities.
- A qualified botanist will conduct a botanical survey of the riparian area before excavation and/or excavation activities begin.
- The riparian area will be revegetated with Sitka Spruce and Bog Leaf Maple at a pre-determined spacing. Fencing will be installed around plantings to promote growth by limiting herbivory.

Measure 4: Impacts to Tribal Cultural Resources

- The applicant's archaeologist shall develop an Tribal and Cultural Resource Monitoring Plan in consultation with representatives for the Tolowa Dee-ni' Tribe that details what actions will occur to: (1) minimize the risk of potentially significant impacts to tribal resources or buried human remains before excavation and trenching activities are initiated, (2) investigate excavated materials to verify that tribal resources or buried human remains have not been encountered, and (3) respond in the event that tribal resources or human remains are encountered during excavation activities. The Excavation Plan shall be submitted to the Regional Water Board for review and approval prior to implementation.
- The Tribal and Cultural Resource Monitoring Plan will implement protection and preservation measures outlined in Attachment E of the General Waste Discharge Requirements For Dairies Within the North Coast Region", Order No. R1-2019-0001, "Tribal Cultural Resources Mitigation Program".
- A historical human remains detection canine (HHRDC) survey shall be employed along the proposed trenching and excavation areas to identify potential human remains in advance of trenching activities. If the HHRDC survey identifies potential human remains within the area of the proposed trenching activities, the project shall be redesigned to avoid the detection site unless alternative actions to protect or remove and relocate the remains are agreed upon by the appropriate representative(s) of the Tolowa Dee-ni' Nation.
- An unclassified historical human remains detection canine survey report shall be developed by the applicant's archaeologist or the HHRDC contractor, in advance of any excavation and trenching activities and shall be provided to the Tolowa Dee-ni' Nation and the Regional Water Board at least 30 days prior to commencing trenching activities, to inform project implementation to avoid potential impacts to human remains.
- At least 30 days prior to commencing trenching activities, the Farm, or its Representatives, will notify interested Tribes that trenching and excavation is planned, and to arrange for Tribal Monitors to be on-site during these activities. The 30 day timeframe may be shorter if the Farm, or its Representatives, and interested Tribes mutually agree to the revision.

- Construction crews will cease work in the affected area, if cultural resources are discovered.
 - Upon discovery, the Farm, or its Representatives, will notify Del Norte County, the Regional Water Board, and other appropriate entities to allow the tribal cultural resources to be evaluated and properly treated if necessary.
 - The Farm will comply with Del Norte County's standard provisions including County ordinance 16.04.31 to mitigate any potential impacts on tribal cultural resources.
2. Trenching/excavation activities beyond the boundaries of APN 103-020-74 are not authorized by this permit. Additional approval from the Regional Water Board will be required. Additional approval may include an additional 401 Water Quality Certification or Waste Discharge Requirement (WDR).

Project-Specific Conditions Requiring Reports

3. Within 30 days of issuance of this Order, the Applicant shall upload Project information to [EcoAtlas using the "Project Tracker" form](https://ptrack.ecoatlas.org) found at the following website: (<https://ptrack.ecoatlas.org>). Required information includes a Project map that may either be uploaded to EcoAtlas or created within EcoAtlas by using the "draw polygon" tool.

Standard Conditions

4. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330 and title 23, California Code of Regulations, section 3867.
5. This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to title 23, California Code of Regulations, section 3855, subdivision (b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
6. The validity of this certification is conditioned upon total payment of any fee required under title 23, California Code of Regulations, section 3833, and owed by the Applicant.
7. An application fee of \$2,417 was received for the Project on May 4, 2022, and a project fee of \$2,603 was received on June 3, 2024. The project qualified as category A, fill and excavation discharges in the current fee schedule. This Certification will be subject to annual billing while the project is constructed and /or monitored using the current fee schedule at the time of billing:
(https://www.waterboards.ca.gov/resources/fees/water_quality/docs/dredgefillcalculator.xlsx)

Annual fees will be automatically invoiced to the Applicant.

The Applicant must notify the Regional Water Board at the end of the construction and or mitigation period with a final report in order to request to terminate annual billing. Regional Water Board staff may request site visit at the end of the Project to confirm status of Project and compliance with this Certification. (Cal. Code Regs., tit. 23, §§ 3833(b)(3) and 2200(a)(3); Wat. Code § 13267 subd. (c)).

8. The Regional Water Board shall be notified at least five working days (working days are Monday – Friday) prior to the commencement of construction. (Wat. Code §§ 13267, 13383).
9. Only wildlife-friendly, 100-percent biodegradable erosion and sediment control products that will not entrap or harm wildlife shall be used. Erosion and sediment control products shall not contain synthetic (e.g., plastic or nylon) netting. Photodegradable synthetic products are not considered biodegradable. The Applicant shall request approval from the Regional Water Board if an exception from this requirement is needed for a specific location. (Water Quality Control Plan for the North Coast Region, Section 4.2.1, State Board Resolution No. 68-16).
10. BMPs shall be implemented as proposed in the application materials. BMPs for erosion, sediment and turbidity control shall be implemented and in place at commencement of, during and after any ground clearing activities or any other Project activities that could result in erosion or sediment discharges to surface water. Severe and unseasonal rain events are becoming more frequent due to the effects of climate change. Therefore, BMPs shall be immediately available for deployment at all times to prevent discharges to waters of the state. (State Board Resolution No. 68-16, 40 CFR Part 131.12 (a)(1), Wat. Code § 13369, Cal. Code Regs., tit. 23, § 3861(d)(2)).
11. The Applicant is prohibited from discharging waste to waters of the state, unless explicitly authorized by this certification. For example, no debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete washings, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature, other than that authorized by this certification, shall be allowed to enter into or be placed where it may be washed by rainfall into waters of the state. When operations are completed, any excess material or debris shall be removed from the work area. (Water Quality Control Plan for the North Coast Region, section 4.2.1).
12. The Applicant shall provide Regional Water Board staff access to the Project site to document compliance with this certification. (Wat. Code § 13267 subd. (c)).
13. If, at any time, an unauthorized discharge to surface water (including wetlands, lakes, rivers or streams) occurs, or any water quality problem arises, the associated Project activities shall cease immediately until adequate BMPs are

implemented including stopping work. The Regional Water Board shall be notified promptly and in no case more than 24 hours after the unauthorized discharge or water quality problem arises. (Wat. Code §§ 13170, 13245, 13271).

14. Prior to implementing any change to the Project that may be a material change as defined in California Water Code section 13260 subdivision (c) as a proposed change in character, location, or volume of the discharge, the Applicant shall obtain prior written approval of the Regional Water Board Executive Officer. If the Regional Water Board is not notified of the material change to the discharge, it will be considered a violation of this certification, and the Applicant may be subject to Regional Water Board enforcement action(s). (Wat. Code §§ 13264, 13376).
15. All Project activities shall be implemented as described in the submitted certification application package and the findings and conditions of this certification. Subsequent Project changes that could significantly impact water quality shall first be submitted to Regional Water Board staff for prior review, consideration, and written concurrence. If the Regional Water Board is not notified of a significant alteration to the Project, it will be considered a violation of this certification, and the Applicant may be subject to Regional Water Board enforcement actions. (Wat. Code §§ 13264, 13376).
16. The Applicant shall provide a copy of this certification and State Water Resources Control Board (SWRCB) Order No. 2003-0017-DWQ to any contractor(s), subcontractor(s), and utility company(ies) conducting work on the Project and shall require that copies remain in their possession at the work site. The Applicant shall be responsible for ensuring that all work conducted by its contractor(s), subcontractor(s), and utility companies is performed in accordance with the information provided by the Applicant to the Regional Water Board. (Wat. Code §§ 13170, 13245).
17. Fueling, lubrication, maintenance, storage, and staging of vehicles and equipment shall not result in a discharge or threatened discharge to any waters of the state including dry portions of the shoreline. At no time shall the Applicant or its contractors allow use of any vehicle or equipment, which leaks any substance that may impact water quality. (State Board Resolution No. 68-16, 40 CFR Part 131.12 (a)(1), Wat. Code § 13369, Water Quality Control Plan for the North Coast Region, section 3.3.16).
18. The Applicant shall not use leaking vehicles or equipment within State waters or riparian areas. Vehicles and equipment used within State waters shall be checked for leaks at the beginning of each workday. (State Board Resolution No. 68-16, 40 CFR Part 131.12 (a)(1), Wat. Code § 13369, Water Quality Control Plan for the North Coast Region, section 3.3.16).
19. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under applicable state or federal law. For the purposes of section 401(d) of the Clean Water Act, the applicability of

any state law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification. In response to a suspected violation of any condition of this certification, the State Water Board may require the holder of any federal permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the State Water Board deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In response to any violation of the conditions of this certification, the Regional Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance. (Wat. Code sections 13383, 13267).

20. The Regional Water Board may add to or modify the conditions of this certification, as appropriate, to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act. (Wat. Code § 13330, and California Code of Regulations, title 23 chapter 28, Article 6 commencing with section 3867).
21. In the event of any change in control of ownership of land presently owned or controlled by the Applicant, the Applicant shall notify the successor-in-interest of the existence of this certification by letter and shall email a copy of the letter to the following email address: NorthCoast@waterboards.ca.gov.
22. The successor-in-interest shall email the Regional Water Board Executive Officer at: NorthCoast@waterboards.ca.gov to request authorization to discharge dredged or fill material under this certification. (Wat. Code §13264.) The request must contain the following:
 - i) Effective date of ownership change;
 - ii) Requesting entity's full legal name;
 - iii) The state of incorporation, if a corporation;
 - iv) The address and phone number of contact person; and
 - v) A description of any changes to the Project or confirmation that the successor-in-interest intends to implement the project as described in this certification.
23. Except as may be modified by any preceding conditions, all certification actions are contingent on:
 - i) The discharge being limited to and all proposed mitigation being completed in strict compliance with the Applicant's Project description and CEQA documentation, as approved herein (Wat. Code §§ 13260, 13264, 13376); and
 - ii) Compliance with all applicable water quality requirements and water quality control plans including the requirements of the Water Quality Control Plan for the North Coast Region (Basin Plan), and amendments thereto. (Water Quality Control Plan for the North Coast Region).
24. The authorization of this certification for any dredge and fill activities expires five years after issuance. Conditions and monitoring requirements outlined in this

certification are not subject to the expiration date outlined above, and remain in full effect and are enforceable to ensure compliance with water quality objectives adopted or approved under Sections 13170 or 13245 of the Water Code.

Conditions with requirements for information and reports. Any requirement for a report made as a condition to this certification is a formal requirement pursuant to California Water Code section 13267 or 13383, and failure or refusal to provide, or falsification of such required report is subject to civil liability as described in California Water Code, sections 13268, 13385.

If you have any questions or comments, please call Ryan Bey at (707) 576-2679 or email ryan.bey@waterboards.ca.gov.

Valerie Quinto
Executive Officer

240603_RAB_SmithRiverDiversionProject_401

Original to: Steven Westbrook, Reservation Ranch,
reservationranchsteven@gmail.com
cc: Chris Howard, Authorized Agent, chris@ecodairyfarms.com
State Water Resources Control Board, Stateboard401@waterboards.ca.gov
EPA Region 9, R9cwa401@epa.gov
SF U.S. Army Corps of Engineers, CESPN-Regulatory-Info@usace.army.mil
Kelly Finn; USACE, Fairfax.K.Finn@usace.army.mil
Monty Larson, CDFW, Monty.Larson@Wildlife.ca.gov
Melissa Kraemer, California Coastal Commission,
Melissa.Kraemer@coastal.ca.gov
Cynthia Herzog, California State Lands Commission,
Cynthia.Herzog@slc.ca.gov