March 1, 2019

In the Matter of

Water Quality Certification

for

Hart Ranch Instream Flow Enhancement Project
41.4938° N, 122.8474° W
WDID No.1A171684WNSI, CW-839891

APPLICANT: Sheri Hagwood, U.S. Fish and Wildlife Service
RECEIVING WATER: Little Shasta River
HYDROLOGIC UNIT: Shasta Valley Hydrologic Unit No. 105.5
COUNTY: Siskiyou County
FILE: Hart Ranch Instream Flow Enhancement Project

FINDINGS BY THE EXECUTIVE OFFICER:

1. On September 9, 2017, the North Coast Regional Water Quality Control Board (Regional Water Board) received an application from Sheri Hagwood, U.S. Fish and Wildlife Service (Applicant), requesting federal Clean Water Act, section 401, Water Quality Certification (certification) for activities related to the proposed Hart Ranch Instream Flow Enhancement Project (Project). On August 18, 2018, additional information was provided, and the application was deemed complete.

2. Public Notice: The Regional Water Board provided public notice of the application pursuant to Title 23, California Code of Regulations, Section 3858 on February 14,

1 WGS84 datum
3. **Receiving Waters:** The Project will cause disturbances to waters of the U.S. and the state associated with the streambed and banks of the Little Shasta River, within the Shasta Valley Hydrologic Unit No. 105.5.

4. **Project Description:** The Project will enhance fish passage for coho salmon and open access to upstream rearing habitat in the Little Shasta River by improving agricultural water infrastructure and water management practices on the Hart Ranch. Additionally, the Project includes a permanent instream dedication of 0.5 cubic feet per second (cfs), with an additional long-term dedication of up to 1.0 cfs.

The Hart Ranch diversion facility is located at river kilometer 18.6 on the Little Shasta River and consists of a concrete diversion dam, headgate, fish screen, fish bypass pipe, and a flow measurement device. The diversion provides water to the Hart ditch year-round for irrigation and stockwater purposes. Flashboards are installed seasonally between March 1st and November 1st. The flashboards extend approximately one foot above the crest of the dam.

The Hart Ranch diversion dam is located at the downstream end of a right trending bend and approximately 110 feet upstream of the Harry Cash Road bridge across the Little Shasta River. Upstream of the dam, low to moderate flows are confined within the river by a four-foot high berm along the right bank and the hill slope along the left bank. The dam crest is 20 feet wide and approximately six feet long. Right of the dam crest are two concrete walls that formerly contained a four-foot wide fish ladder. The walls of the fish ladder extend downstream approximately 10.5 and 15 feet from the crest of the dam, respectively. The dam impedes upstream movement of salmonids and native fishes. During low flows when flashboards are not in place, depths over the concrete sill do not meet National Oceanic and Atmospheric Administration (NOAA) and California Department of Fish and Wildlife (CDFW) fish passage criteria for adults and juvenile fishes and may delay or prevent fish from moving upstream. The dam is a complete barrier to adult and juvenile salmonids when the flashboards are in place.

The Project includes: removal of the existing concrete dam, fish screen, and old fish ladder walls; construction of approximately 105 linear feet of roughened channel at an approximately three-percent grade that provides fish passage; construction of a new cast-in-place concrete diversion structure with fish screen and fish return bypass that meets current NOAA and CDFW fish protection criteria; and revegetation of the site.

Both the south and north sides of the site will be accessed from Harry Cash Road. Construction staging will be in upland areas adjacent to the roadway and will be
established in locations that minimize disturbance to vegetation and habitat. Staging areas will be located a minimum of 30 feet outside of the ordinary high water. Equipment will be refueled a minimum of 150 feet from the river. Spill kits will be maintained onsite and will be used to clean up any fuel, hydraulic fluid, and oil leaks or spills.

The Project will be conducted during the low flow period of June 15 to November 1. Stream flows during this period are anticipated to be less than about 3 cfs. Pumps will be used when necessary to remove ground water seepage into the isolated work area. Pumped groundwater seepage will be spread over existing floodplain areas and allowed to infiltrate into the ground without causing river turbidity to increase. River flows will be diverted around the roughened channel and diversion structure intake during construction and will be returned to the newly constructed channel as soon as these portions of the work are complete. It is anticipated the site will be dewatered for less than six weeks. Prior to grading activities, the contractor will salvage and store existing vegetation cuttings and willow transplants to be replanted following completion of work. Where possible, existing woody vegetation will be excavated with rootwads intact and immediately replanted.

One to two excavators will remove the existing concrete and steel structures and excavate the channel for realignment. Concrete and steel will be disposed of at a licensed transfer station or landfill. Following excavation, roughened channel construction will consist of placement of downstream and upstream boulder buttress footer and top rocks, placement of boulder clusters, placement of engineered streambed material. The roughened channel will be sealed by filling voids with silts, sands, and fine gravels. Imported rock will be used to construct the roughened channel, rock bank protection, and rock buttresses. Existing rock salvaged on site will supplement imported rock where needed. Butresses will be constructed by placing individual rocks with at least three points bearing. Smaller rocks will fill voids between the large rock to create a stable mass. Filter fabric will not be utilized for construction of the roughened channel. Roughened channel construction duration is expected to be approximately one month. Additionally, log and boulder structures will be installed to increase channel roughness, bank stability, hydraulic diversity, floodplain connection, and habitat heterogeneity. The logs will be anchored by drilling and placing epoxy cable and boulder anchors.

Construction of the new diversion structure will follow the completion of the roughened channel. The concrete diversion structure will be cast-in-place and will include an intake, fish screen, fish bypass return pipe, adjustable weir, water wheel and cleaning mechanism, and connection with the existing diversion conveyance ditch. A State Water Resource Control Board-compliant flow measuring device will be installed to measure and record diversion. The new diversion structure will be located along the left bank out of the main channel and will not impeding flow or fish passage. The new diversion structure is approximately 8 to 14 feet wide, 125 feet
long, and 4 to 9.5 feet high. Concrete will be allowed to fully cure before water is returned to the channel.

Approximately 15 alder and willow trees with diameters at breast height less than six inches will be removed to accomplish channel roughening and realignment. Additional vegetation removal will include small riparian vegetation within the work area as well as approximately 20 junipers to be used for large wood floodplain protection. Junipers will be removed from the Hart Ranch in upland areas and will be removed with their rootwad intact. Following completion of construction of the roughened channel and diversion structure, the site will be cleared of construction debris and erosion control measures will be installed. Planting will be completed in the fall and winter and in combination with additional erosion control measures consisting of willow wattles, brush mattresses, willow transplants, and willow stakes.

5. **Construction Timing:** The work will occur between July 15 and October 15, 2019. Project implementation will take approximately 60 days.

6. **Project Impacts:** The Project will result in temporary impacts to approximately 150 linear feet and 0.16 acres of steam bank and channel, and the placement of 2,600 tons of engineered streambed materials and armoring, within the Little Shasta River.

7. **Mitigation for Project Impacts:** The impacts associated with this Project will result in a net gain in ecological function and therefore are self-mitigating. The Project will enhance flow and improve fish passage and habitat in the Little Shasta River.

8. **Other Agency Actions:** The applicant has applied to the United States Army Corps of Engineers for a section 404 permit (Nationwide Permit 27), and to the California Department of Fish and Wildlife for a Streambed Alteration Agreement.

9. **CEQA Compliance:** In March of 2017, California Department of Fish and Wildlife, as lead California Environmental Quality Act (CEQA) agency, completed a Mitigated Negative Declaration for the Project (SCH No. 2017017061), pursuant to CEQA guidelines.

10. **Total Maximum Daily Load:** The Scott River Total Maximum Daily Load (TMDL) for sediment and temperature was established by the United States Environmental Protection Agency (EPA) in accordance with section 303(d) of the Clean Water Act. Streambank modification and loss of riparian habitat are identified as sources contributing to the sediment impairment, and loss of riparian habitat is identified as a source contributing to the temperature impairment. Activities authorized by this certification will not result in a net decrease of riparian vegetation or introduce sediment sources to the Scott River system. The Applicant will utilize appropriate erosion control, sediment control, and site management BMPs to control pollutants during construction.
11. **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 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.


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<th>Receiving Water:</th>
<th>Little Shasta River, Shasta Valley Hydrologic Unit No. 105.5</th>
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<tr>
<td>Project Impacts:</td>
<td>Temporary impacts to streambank and channel: 150 linear feet and 0.16 acres</td>
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<td>Filled and/or Excavated Volume: 2,600 cubic yards</td>
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<tr>
<td>Latitude/Longitude:</td>
<td>41.4938° N, 122.8474° W</td>
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<td>Certification Expiration:</td>
<td><strong>March 1, 2024</strong></td>
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Accordingly, based on its independent review of the record, the Regional Water Board certifies that the Hart Ranch Instream Flow Enhancement Project (WDID No. 1A171684WNSI) 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.**

**Standard Conditions**

1. 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.
2. 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.

3. 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. The applicant is a federal entity exempt from state fees (Fee Code 18 – Nonbillable Federal Facility) and is not required to pay an application, project, or annual fee.

The fee calculator may be found at: https://www.waterboards.ca.gov/resources/fees/water_quality/docs/dredgefillcalc
ulator.xlsm

4. The Regional Water Board shall be notified at least five working days (working days are Monday – Friday) prior to the commencement of construction.

5. 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.

6. 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.

7. 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.
8. The applicant shall provide Regional Water Board staff access to the project site to document compliance with this certification.

9. 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.

10. Prior to implementing any change to the project that may be a material change as defined in California Water Code section 13260(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).

11. All project work shall be conducted as described in this certification and in the application submitted by the applicant, and shall comply with all applicable water quality standards as detailed in the Basin Plan. 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.

12. 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.

13. Disturbance or removal of existing vegetation shall not exceed the minimum necessary to complete the project.

14. 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.

15. 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.

16. 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.

17. 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. The successor-in-interest must email the Regional Water Board Executive Officer at: NorthCoast@waterboards.ca.gov to request authorization to discharge dredged or fill material under this certification. 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.

18. 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; 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.
19. The authorization of this certification for any dredge and fill activities expires on March 1, 2024. 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.

If you have any questions or comments, please call Jake Shannon at (707) 576-2673 or via e-mail at Jacob.Shannon@waterboards.ca.gov.

Digitally signed by Jonathan Warmerdam
Date: 2019.03.01 13:49:49 -08'00'

Matthias St. John
Executive Officer

Original to: Sheri Hagwood, U.S. Fish and Wildlife Service
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