UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
777 Sonoma Avenue, Room 325
Santa Rosa, California 95404-4731

March 7, 2024 **Refer to NMFS No:** WCRO-2022-01929

Elizabeth Campbell, Regional Fisheries Biologist
U.S. Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue, 4th Floor
San Francisco, California 94102

Rory Taylor, Fisheries Biologist
U.S. Army Corps of Engineers
San Francisco District
3333 Skaggs Springs Road
Geyserville, California 95441

Re: Issuance of Section 10(a)(1)(A) Enhancement Permit 26277

Dear Elizabeth Campbell and Rory Taylor:

Enclosed is Permit 26277 issued to the United States Army Corps of Engineers under the authority of Section 10(a)(1)(A) of the Endangered Species Act of 1973 (ESA), as amended, and its implementing regulations. Permit 26277 authorizes take of the ESA-listed threatened Central California Coast steelhead (*Oncorhynchus mykiss*) for enhancement activities associated with the implementation of the Hatchery and Genetic Management Plan (HGMP) for the Russian River Steelhead Integrated Harvest Hatchery Program. The program operates from the Don Clausen Fish Hatchery in Geyserville, Sonoma County and the Coyote Valley Fish Facility, near Ukiah in Mendocino County, California. In effecting the take authorized by Permit 26277, you will have accepted the terms and conditions of the permit, and you will be prepared to comply with the provisions of the permit, the applicable regulations, and the ESA.

NOAA's National Marine Fisheries Service (NMFS) requires that the individuals acting under the authority of Permit 26277 review the permit before engaging in the permitted activities. Your attention is directed to Sections A-F, which describe the annual take limits, the permit conditions, and the annual reporting requirements. Please sign and date the last page, then e-mail a scanned copy to Bob Coey at Bob.Coey@noaa.gov. Please note that you are not authorized to conduct activities under Permit 26277 until the NMFS Santa Rosa Office receives a signed copy of the signature page.

Permit 26277 is subject to annual review based, in part, on your reported take per annual period and your compliance with the conditions of the permit. Annual reports are due by January 31st of each year. Permit 26277 expires on September 30, 2033. If you have any questions concerning the permit, please contact Bob Coey at Bob.Coey@noaa.gov.

Sincerely,

/for
Jennifer Quan
Regional Administrator
West Coast Region

Enclosure

cc: David Hines, California Department of Fish and Wildlife
Darrick Muir, California Department of Fish and Wildlife
Benjamin White, U.S. Army Corps of Engineers, Geyserville, California
Copy to E-File ARN 151422WCR2022SR00157

ENDANGERED SPECIES ACT SECTION 10(a)(1)(A) PERMIT FOR DIRECT TAKE OF LISTED SPECIES FOR SCIENTIFIC RESEARCH AND ENHANCEMENT PURPOSES

Permit Number: 26277

Permit Type: Scientific Research and Enhancement

Program Name: Russian River Steelhead Integrated Harvest Hatchery Program

Expiration Date: September 30, 2033

Reporting Period: July 1 through June 30, annually

Annual Reports Due: August 31, annually

Permit Holder:
U.S. Army Corps of Engineers
San Francisco District (SPN)
450 Golden Gate Avenue, 4th Floor
San Francisco, California 94102

Primary Contact:
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Co-Investigators:
Benjamin White, U.S. Army Corps of Engineers, Geyserville, California
Darrick Muir, California Department of Fish and Wildlife, Geyserville, California
David Hines, California Department of Fish and Wildlife, Fairfield, California

A. Authorization

This authorization is subject to the provisions of the Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531-1543), as amended, NOAA's National Marine Fisheries Service's (NMFS) regulations governing ESA-listed species permits (50 CFR Parts 222-226), and the conditions set forth hereinafter.

The United States Corps of Engineers, San Francisco District (USACE) is hereby authorized to take ESA-listed threatened Central California Coast (CCC) steelhead (*Oncorhynchus mykiss*) associated with hatchery propagation activities at Don Clausen Fish Hatchery (DCFH) and Coyote Valley Fish Facility (CVFF) as well as monitoring and evaluation as cited in the permit holder's application. Take numbers are listed by category in Section C of this permit (26277).

Background

USACE is responsible for compensation of fish losses in the Russian River which are attributed to the operation of the Coyote Valley Dam component of the project through measures such as the fish hatchery at the Warm Springs Dam component of the project (PUBLIC LAW 93-251-MAR. 7, 1974, Sec.95). To accomplish this mission, USACE contracts with the California Department of Fish and Wildlife (CDFW) for hatchery operations which includes the main hatchery operation at the DCFH and satellite facility CVFF on the Russian River. The operations of these fish hatchery facilities together are known as the Russian River Steelhead Integrated Harvest Hatchery Program (Program).

The primary purpose of the hatchery Program is to compensate for lost habitat due to the construction of Warm Springs and Coyote Valley dams in the Russian River Basin. Hatchery production is required to "mitigate" for the loss in natural steelhead production estimated to have occurred prior to construction of the dams. The hatchery does not have a conservation purpose wherein hatchery-produced steelhead are used to increase natural steelhead abundance and spawning escapement in the Russian River basin. However, the Program as proposed, is to operate as an integrated program, wherein the intent is for the natural environment to drive the adaptation and fitness of a composite population of steelhead, that spawn both in the hatchery and in the wild (i.e., naturally in the stream). Integration of these two components of the population is achieved by incorporating naturally produced steelhead into the broodstock and controlling the proportion of the total natural spawning escapement consisting of hatchery-origin steelhead.

The Program is authorized to release up to 500,000 yearling steelhead smolts annually. In the past, 300,000 smolts were released from the DCFH, and 200,000 were released from the CVFF, with the incubation and rearing of all steelhead occurring at DCFH. With the authorization of this permit, up to 200,000 smolts may be released from the DCFH, and up to 200,000 may be released from the CVFF, with the incubation and rearing of all steelhead occurring at DCFH. Full implementation of the Program would occur once performance targets are achieved, with up to 300,000 smolts being released at CVFF, for a total production limit of 500,000 smolts.

This Section 10(a)(1)(A) Permit (26277) authorizes the collection, propagation, release, and monitoring of CCC steelhead for the Program and maintenance of steelhead at the DCFH and CVFF. The steelhead from the Program will be released as yearling smolts in the mainstem Russian River near Dry Creek and the East Fork Russian River, California. Some adult steelhead surplus may be released to Russian River waters if the performance metrics described in the HGMP are achieved.

B. Project Description

Broodstock Collection (adults and juveniles)

Adult Broodstock collection

The adult broodstock needed to maintain the Program may be collected:

1. At adult fish collection facilities (ladders and traps) located at DCFH and CVFF.
2. By sport fishers and volunteers who will collect up to 200 adult steelhead using hook-and-line, or other methods in which steelhead will be deposited into collection facilities or directly transported to the hatchery for holding and spawning. A separate Fisheries Management Enhancement Plan (FMEP), to be submitted under ESA limit 4 of the 4(d) rule,[1] and which is not a requirement of this permit, will be completed by CDFW (co-investigator to this permit) to authorize fisheries and address incidental take of ESA species associated with recreational harvest (not covered by this permit).
3. By collection at other adult trapping facilities and methods developed in coordination with the TAC and approved by NMFS.

The Program will collect no more than 1,014 hatchery origin returns (HORs) and 389 natural origin returns (NORs) adults for spawning from all sources annually.

Juvenile Broodstock Collection

13,500 NOR fry may be collected each year in total, from lower river tributaries (i.e., Austin Creek, Green Valley Creek, Mark West Creek, Maacama Creek, and Dry Creek populations) and from the Upper Russian River population. Fry would be collected using downstream migrant traps, seining, or backpack electrofishing. Collected NOR fry will be transferred to DCFH, reared to the yearling life stage and then released as smolts either at DCFH or CVFF. NOR smolts from the Upper Russian River population will only be released at CVFF; NOR smolts from lower river tributaries will be part of DCFH releases (unless otherwise directed by NMFS and CDFW geneticists). The Program reared NOR smolts will be uniquely marked (e.g., maxillary clip) so they may be identified upon their return to each hatchery facility as natural origin adults (without adipose clips or coded wire tags). These returning adults would then be

[1] FMEP's describe fisheries targeting adult adipose-fin-clipped, hatchery-origin steelhead within the State of California, to support fishing opportunities while minimizing potential risks to ESA-listed species. The FMEP describes timing, location, harvest impact limits, licensing, and gear requirements, and requires that all fish caught with an intact adipose fin be released unharmed. A variety of monitoring and evaluation is included in an FMEP.

incorporated into broodstock at each facility. This approach is designed to meet pNOB objectives as it may be difficult to capture sufficient NOR adults through other methods identified (e.g., weirs, fishers) to meet program target objectives.

Spawning and Mating Protocols

Spawning Protocols

The program will follow the mating protocols as developed by NMFS geneticists with input from CDFW geneticists or biologists. These protocols attempt to meet several challenging program goals: 1) increase the total number of parents used as broodstock to increase effective number of breeders, 2) maximize retention of NOR contribution to improve population fitness, 3) increase the effective population size of the integrated population which maintains genetic diversity, and 4) reduce the number of age-2 adults used in broodstock. A description of the mating protocols for various crosses of HOR and NOR adults (Modified per M. Lacey, CDFW memo to NMFS, October 22, 2022) is as follows:

HOR x HOR mating

1. Split each HOR female's eggs into two equal groups;
2. Fertilize each group using a different HOR male;
3. After fertilization, egg number can be estimated by hatchery staff rather than enumerated.
    a. If the number of eggs produced by a female is greater than 2,500, discard eggs to bring the total down to 2,500.
    b. If the number of eggs produced by a female is less than or equal to 2,500, keep all of the eggs. Egg number can be estimated by hatchery staff rather than enumerated. Reduction of eggs will occur after fertilization and after pooling the two families produced by each female's split lots fertilized by two different males. Reduction of eggs will occur after fertilization and after pooling the two families produced by each female's split lots fertilized by two different males.

Jack Incorporation

1. No more than 10% of the broodstock will consist of age-2 adults.
2. Every 10th fish spawned can be a Jack between 16-24".
3. Age-2 males will not be spawned with age-2 females.
4. Adult age will be determined through the use of fish length data collected each year.

Egg Fertilization and Incubation Protocols

The Program will not take more than 1.2 million steelhead eggs. Of these, no more than 250,000 can come from natural origin (NOR) females. Eggs from natural origin females or fertilized by natural origin males will be incubated in heath trays at a density of no more than 10,000 eggs per heath tray. Eggs with natural origin parents (genes) will not be culled.

Eggs from hatchery origin (HOR) parents may be incubated in heath trays and/or jars. These eggs may be culled as needed to meet broodstock objectives (e.g., spawn timing).

The Program will follow all incubation protocols described in the interagency memo from M. Lacey to NMFS on October 22, 2022.

Rearing and Marking Protocols

Rearing Protocols

All Program fish will be reared for approximately 1 year at DCFH to the yearling stage and then released from each respective facility (see release protocols below).

The growth rate of the juveniles will be set to produce fish that migrate rapidly from the system and produce fewer age 2 adults. Smolt release size at both facilities will be reduced from 225mm (4fpp) to no smaller than 170mm (8fpp +/- 0.8fpp) and no greater than 200mm (typical size range of NOR smolts captured in Russian River traps).

Marking Protocols

Juveniles with natural origin (NOR) parents will be reared in a manner that allows them to be distinguished from hatchery origin fish so that they may be given a distinguishing mark (e.g., right maxillary clip). Fish receiving such a mark will not be ad-clipped. Rearing protocols will be followed to the extent that space is available with NORxNOR crosses given priority.

All hatchery origin (HOR) juveniles will be ad-clipped prior to their release.

The Program will follow all rearing and marking protocols described in Section 9 of the HGMP and memo from M. Lacey to NMFS on October 22, 2022.

Release Protocols

Until full implementation and achievement of performance targets, the Program may release up to 400,000 yearling steelhead smolts from the two facilities combined annually. The fish are to be released in January, February and March of each year.

To account for errors in fish enumeration or in years when survival rates were higher than expected, the Program may release up to 400,000 juveniles ±10 percent (i.e., 450,000 smolts) annually. If release targets are exceeded, the Program will contact NMFS, to determine the release strategy for the excess production, and provide the actual number of fish released and identify additional protocols for preventing such an event from occurring in the future.

Fish to be released at CVFF will be transferred from DCFH for acclimation purposes approximately 21-days prior to the release date. These fish will be released in a volitional manner to the East Fork Russian River from CVFF. Fish remaining in the raceways may be forced out after 5-days.

Fish production for DCFH will be transported and released either near the mouth of Dry Creek, or into the Russian River near Dry Creek. Alternate release locations will be identified by the TAC if a suitable release site near the mouth of Dry Creek is not available.

The Program will follow all release protocol described in Section 10 of the HGMP. Other smolt release locations may be added or recommended by the TAC, following monitoring results, to inform study results, or as necessary to incorporate disease/invasive protocols.

Monitoring and Evaluation (M&E) Protocols

Monitoring activities will focus on achieving program performance metrics in the hatchery, in the natural environment, and the harvest program. Hatchery, harvest and environmental monitoring will be developed and conducted by CDFW, USACE, or other researchers authorized by the USACE in coordination with the TAC and NMFS, within two years of issuance of this permit, as described below. Additionally, associated harvest monitoring may be developed in coordination with the TAC to improve estimates of catch, retention, and stray rates from each facility. Based on the results of these monitoring activities, the program will be modified accordingly via recommendations of the TAC in consultation with CDFW, the USACE, and approval from NMFS. Monitoring and evaluation (M&E) for the Program will be focused on:

A. Ensuring that performance indicators and standards identified in the HGMP are achieved.
B. Measuring pHOS in each of the six Russian River steelhead essential populations (independent populations) to determine if HSRG guidelines for this parameter are achieved. Annual estimates of pHOS, for the basin and for all six essential fish populations (independent populations) in the Russian River (Austin Creek, Green Valley Creek, Mark West Creek, Dry Creek, Maacama Creek and the upper Russian River and its tributaries will be obtained through spawner surveys and/or genetic sampling of juveniles.
C. Ensuring hatchery operations are required to produce healthy, disease-free fish.
D. Quantifying HOR steelhead predation risk to ESA listed salmonid species. Estimates of predation will be developed via a study design developed in coordination with the TAC. Methods may include, a study to evaluate the stomach contents of hatchery steelhead smolts captured using various methods to be sampled genetically to determine if these fish prey on ESA listed coho salmon or Chinook salmon, or other study design recommended by the TAC with approval from NMFS.
E. Developing performance indicator estimates and methods which can be implemented within one to three years of the issuance of this permit (see Table 4 below).
F. The results of the M&E program will be reported yearly as part of the hatchery operations report. Results from M&E activities will be used to adaptively manage both the hatchery and natural components of the Russian River steelhead populations. Any changes proposed to the above M&E as proposed in the USACE and CDFW July 6, 2021 HGMP must be submitted to and approved by NMFS.

Table 1. Program indicators associated metrics and time frame for their achievement.

Performance Indicator	Performance Metric/Action	Time Frame for Achievement
Broodstock Composition, Timing, Structure Similar to Natural Fish	Similar:	Year 1
	Age-Structure	
	Male/Female Ratio	
	Broodstock collected over 100% of NOR Run-timing	
	Repeat spawner percentage like natural population	
High Adult Holding and Pre-Spawning Survival Rate, and Egg-to-Fry, Fry-to-Parr, and Egg-to-Yearling Survival Rates	Survival Rate(s):	Year 1
	>95% Adult Holding/Pre-spawn	
	>90% Egg-to-Fry	
	>90% Fry-to-Parr	
	>80% Egg-to-Yearling	
Mating Protocols that Minimize Inbreeding and Conserve Existing Genetic Diversity	Broodstock Collected Over Full Run-Timing	Year 1
High Proportionate Natural Influence (PNI)	Minimum PNI 0.5, 4-year average PNI ≥ 0.67	Year 3
Follow Best Culture Practices	Number and Severity of Disease Outbreaks is Low	Year 1
NPDES Permit Standards	Hatchery effluent meets standards	Year 1
Juvenile Release Timing, Fish Health, Size and Condition of Released Fish Produce High Survival	Fish Size at Release (8 fpp +/- 0.8 fpp)	Year 1
	Minimum Fish Length 170mm	
	Maximum Fish Length 200mm	
Adult Run-timing	Similar Adult (HOR and NOR) Run-timing	Year 1
Low pHOS	Long-Term Target of <30% pHOS in streams integrated with Program (i.e., Dry Creek, Upper Russian River)	Year 3
Low HOR Straying	pHOS < 5% in streams not integrated with Program (watershed tributaries)	Year 3

C. Special Conditions

Adjustments to the Program may be made, provided they are made within the constraints of this permit 26277 and subject to the provisions of Section 10(a)(1)(A) of the Endangered Species Act of 1973 (16 U.S.C. §§ 1531-1543), NMFS regulations governing ESA-listed species permits (50 CFR Parts 222-226), and the conditions hereinafter set forth. Such Program adjustments do not require modification of the permit provided that any adjustment will not result in a level of direct or incidental take more than otherwise allowed by this permit and by the incidental take statement (ITS). The following Special Conditions were identified through NMFS Section 7 analysis of NMFS's issuance of 10(a)(1)(A) permit for the Program as necessary and appropriate to minimize incidental take, and as such are required Special Conditions for Program operation by USACE.

1. Achievement of Program Performance Indicators and Metrics

The Program will strive to achieve the performance indicators and their associated metrics in the time frames shown in Table 4 above and described in the USACE and CDFW HGMP Russian River Steelhead Integrated Harvest Hatchery Program, dated July 6, 2021. Achievement of performance targets is driven by the various tools that hatchery managers employ, in coordination with the TAC and NMFS, and will ultimately determine the size of the program (see below). NMFS recognizes that the time periods required for the achievement of each indicator/metric may be longer than those presented in Table 4 due to lack of congressional funding and implementation issues such as staffing. However, it is expected that they all will be achieved by year 5 after permit issuance. The status of each performance indicator and metric will be provided to NMFS as part of annual reporting.

2. Expected Size of Program

a. The two programs combined have a long-term goal to produce and release a maximum of 500,000 yearling steelhead to the Russian River basin each year. With the approval of this permit, total fish production from the Program has been reduced by 20% and capped at 400,000 fish (DCFH production will be reduced to 200,000 fish). This 33% reduction in DCFH hatchery production is expected to result in a 33% reduction in pHOS for the DCFH program. Thus, until performance targets are met, the program will release up to 200,000 juveniles from DCFH and 200,000 from CVFF annually. Upon full implementation and achievement of performance targets for pHOS, pNOB and Harvest, the Program may release up to 500,000 yearling steelhead smolts from the two facilities combined annually (with CVFF releases increased to 300,000 if hatchery performance metrics for pHOS and pNOB are met[2]).

b. Additionally, if performance metrics cannot be met by those proposed in the HGMP or other means (e.g., removal of hatchery fish from spawning grounds, increased retention of HOR fish in recreational fisheries, increased pNOB), the number of juveniles released

[2] The shift in hatchery production and releases from DCFH to CVFF, is made to expose more HOR's to the run of the river thereby increasing opportunity for fishers, and for eventual recruitment of ocean adult NOR's by fishers into the broodstock pool for CVFF.

(by each facility) may be reduced further in accordance with the guidelines in the HGMP (e.g., additional 20% reduction in Program production). Further Program changes will also be evaluated and implemented through the TAC if performance metrics for pHOS, pNOB, PNI and predation or competition effects to endangered coho salmon and threatened Chinook salmon or steelhead are not achieved within the time frames identified in Table 5 of the HGMP.

3. Disposition of Surplus Hatchery Adults

As the Program HGMP describes, the Program shall strive to eliminate or substantially reduce the recycling of adult hatchery origin steelhead surplus to broodstock needs, back to the Russian River Basin through the following measures:

a. Until the pHOS metrics are achieved, only HOR surplus females can be recycled, but will be stripped of eggs before they can be released back to the river. All non-utilized NOR females and NOR males returning to, or transported to facilities will be recycled.

b. Once the PNI objective (>0.67) is achieved for three consecutive years, surplus HOR females may be recycled (without egg stripping) so long as the number released does not decrease PNI to <0.67. There are no restrictions on the number of HOR females that may be recycled that were stripped of eggs prior to release.

a. No age 2 HOR surplus males will be recycled to the river. Once PNI metrics are achieved, Age 3 HOR surplus males may be recycled back to the river

b. During low abundance adult return years (less than 300 fish returning at each facility) stripped HOR females and spawned age 3+ HOR males may be recycled back to the river.

c. Relocation of surplus HOR steelhead to non-anadromous waters as recommended by the TAC and approved by CDFW and NMFS can be conducted.

4. Competition and Predation Effects of the Program

To reduce the competition and predation risk the program poses to Endangered coho and Threatened Chinook salmon and steelhead, the following actions will be implemented:

a. Warm Springs origin (i.e., DCFH) steelhead smolts will only be released on the mainstem Russian River upstream of Dry Creek, below Veteran's Memorial Dam in Healdsburg, instead of at the headwaters of Dry Creek (avoiding a 14-mile overlap with coho rearing), unless an alternate release location is established by CDFW and USACE and approved by NMFS.

b. Smolt release size at both facilities will be reduced from 225mm (4fpp) to no smaller than 170mm (8fpp +/- 0.8fpp) and no greater than 200mm (typical size range of NOR smolts captured in Russian River traps) for three years. At the end of this period the

effect this action may have on adult returns, adult age structure and effects to coho salmon and Chinook salmon will be reviewed by the technical advisory committee (TAC) to determine if fish size should be adjusted. If a change is requested, the rationale for the change and the proposed adjustments shall be provided in writing to NMFS for approval before implementation.

c. The growth rate of the juveniles will be set to produce fish that migrate rapidly from the system and produce fewer age 2 adults.

d. The Predation Study, Quantification of Census and Effective pHOS, and spawner surveys activities shall be conducted following the methods outlined in the USACE and CDFW HGMP dated July 6, 2021.

5. Additional Monitoring and Evaluation

In addition to the Monitoring and Evaluation (M&E) proposed in the HGMP the measures below will be followed for the M&E during the Section 10 permit period:

a. USACE is required to fund the implementation of the monitoring and evaluation program to inform the performance indicators proposed in the CDFW and USACE HGMP for the duration of the Section 10(a)1(A) Permit.

b. Adjustments to program operations can be made to ensure ongoing progress towards HGMP performance indicators. Progress towards targets of performance indicators shall be evaluated each generation (every 4 years) by the TAC, based on information generated from the monitoring and evaluation proposed in the HGMP. As the HGMP describes, progress towards targets of performance indicators is also dependent upon harvest (i.e., to achieve pHOS targets via removal of HOR spawners, and pNOB targets via capture of NOR spawners by recreational fishers, or hatchery personnel). A variety of monitoring tools may be included within a future FMEP which may inform and assist progress towards achievement of performance indicators.

c. Monitoring and evaluation and associated performance indicators shall be reviewed by the steelhead TAC and recommendations may be developed to adaptively manage the program. NMFS shall determine if implementation of proposed recommendations will exceed the Section 7 incidental take statement for the issuance of Section 10 permit 26277, or the direct take authorized in this Section 10 permit, prior to authorizing recommendations from the TAC.

The M&E methods may be modified by the permittee with approval of NMFS. Any proposed changes to M&E will be submitted to NMFS in writing prior to conducting and approval of actions. The Permit 26277 authorizes the sampling/collection of ESA-listed salmonid species in any anadromous stream reach of the Russian River Basin needed to quantify program effects and/or achievement of Program performance indicators and metrics.

6. Proposed HGMP Genetic Sampling

All steelhead adults used as broodstock will be genetically sampled each year and analyzed along with juvenile samples for pHOS effective and the predation monitoring following methods directed by the NMFS Southwest Fisheries Science Center. In order to minimize genetic effects of the proposed Program, funding levels consistent with recent historic funding set forth in the September 24, 2008 Russian River Biological Opinion. Adjustments for inflation associated with the life of the permit (until 2033) are expected continue. Recent USACE funding for these activities has been approximately $125,000 for annual genetics analysis of the Russian River steelhead program.

D. General Conditions

The permit holder shall ensure that ESA-listed salmonids are taken only by the means, in the areas, and for the purposes set forth in the permit application, as limited by the special conditions in this permit, and proposed in the USACE and CDFW July 6, 2021 HGMP for the steelhead Program.

1. Should NMFS determine that hatchery operations, fish release operations, or monitoring and evaluation procedures provided for under this permit are no longer acceptable, the permit holder shall immediately cease the use of such a procedure until an acceptable replacement has been approved by NMFS.

2. The permit holder, in effecting the take authorized by this permit, is considered to have accepted the conditions of this permit and shall be prepared to comply with the provisions of this permit, the applicable regulations, and the ESA.

3. The permit holder is responsible for the actions of any individual operating under the authority of this permit.

4. The permit holder, personnel, or designated agent acting on the permit holder's behalf, shall possess a copy of this permit when conducting the activities for which take of ESA-listed salmonids is authorized herein.

5. The permit holder may not transfer or assign this permit to any other person(s), as person is defined in section 3(12) of the ESA. This permit ceases to be in force or effective if transferred or assigned to any other person without prior authorization from NMFS.

6. The permit holder must obtain any other Federal, state, and local permits/authorizations necessary for the conduct of the activities provided for in this permit.

7. Any personnel operating under Permit 26277 that require Federal or State licenses to practice their profession shall be duly licensed under the appropriate law.

8. The permit holder shall coordinate with other researchers to ensure that unnecessary research duplication and/or adverse cumulative effects to ESA-listed salmonids shall not occur as a result of the permit holder’s activities.

9. The permit holder shall allow any NMFS employee(s), or any other person(s) duly designated by NMFS, to accompany hatchery or field personnel during the activities provided for in this permit and/or to inspect the permit holder's records and facilities if such records and facilities pertain to activities for which take of ESA-listed species is authorized by this permit, relate to ESA-listed species, or otherwise pertain to NMFS' responsibilities under the ESA.

10. Under the terms of the regulations, a violation of any of the conditions of this permit will subject the permit holder, and/or any individual who is operating under the authority of this permit, to penalties as provided for in the ESA.

11. The provisions of this permit may be amended by the NMFS, Santa Rosa, CA, upon reasonable notice to the permit holder.

12. 50 CFR section 222.23(d)(8) provides for a reasonable fee to be charged to cover the costs of the issuance of permits under the ESA. The fee for this permit has been waived.

13. This permit may be revoked by NMFS if the activities authorized by this permit are not carried out, if the activities are not carried out in accordance with the conditions of the permit and the purposes and requirements of the ESA and its implementing regulations, or if NMFS otherwise determines that the findings made under section 10(d) of the ESA no longer hold.

14. Any falsification of annual reports or records pertaining to this permit is a violation of this permit.

15. The permit holder, in signing this permit, has accepted and will comply with the provisions of this permit, applicable regulations (50 CFR 222), and the ESA.

E. Permit Reporting and Reauthorization Requirements

National Marine Fisheries Service Contact:

North Coast Branch Supervisor
National Marine Fisheries Service, West Coast Region
North Central Coast Office
777 Sonoma Avenue, Room 325
Santa Rosa, California 95404
Phone: (707) 575-6090
Fax: (707) 578-3435

1. The permit holder shall convene a Technical Advisory Committee (TAC) to include the responsible resource agencies, and meet at least semi-annually to make recommendations to achieve program abundance and performance targets and indicators. The permit holder must submit to NMFS for approval, in writing, changes in any aspect of Program implementation and operations that could potentially result in increased amount of take, or alter the manner or effect of take of ESA-listed species covered in this permit.

2. Upon the written request of NMFS, the permit holder shall provide NMFS with the identities and qualifications of all personnel authorized to act under the authority of this permit.

3. For the duration of this permit, work in each succeeding year is contingent upon submission and approval of an annual report on each preceding year's production, monitoring, evaluation, and research activities. Annual reporting must be submitted online at the Applications and Permits for Protected Species (APPS) website, https://apps.nmfs.noaa.gov by August 31 each year. The comprehensive annual report shall also be submitted to the NMFS contact above by August 31.

   Once an annual report is submitted to NMFS, the permit holder may continue permitted activities unless otherwise notified in writing by NMFS. NMFS will notify the permit holder if the annual report is inadequate, or if additional information is required. If information is requested but not supplied, this ESA Section 10(a)(1)(A) permit may be suspended until the NMFS request is met.


/for

3/7/2024
Date

Jennifer Quan
Regional Administrator
National Marine Fisheries Service, West Coast Region

3/8/2024
Date

Elizabeth Campbell
Regional Fisheries Biologist
U.S. Army Corps of Engineers
San Francisco District, California

F. Authorized Take Levels of ESA-Listed Species

Permit 26277 authorizes the USACE to take the ESA-listed species at the levels presented in Tables 1-3.

Table 2 (a + b). Estimated listed CCC NOR and HOR Steelhead take levels for Warm Springs Hatchery by culture activity.

a) Broodstock Collection at Warm Springs Hatchery Ladder

Species	Listing Unit/Stock	Production Origin	Life Stage	Sex	Expected Take	Unintentional Mortality	Take Action	Observe/Collect Method	Marking
Steelhead	Central California Coast Steelhead - Threatened	Hatchery (HOR)	Adult	Male	<3,000	60	Intentional (Directed Mortality)	Fish surplus to hatchery production	Floy Tag, Acoustic Tag
Steelhead	Central California Coast Steelhead - Threatened	Hatchery (HOR)	Adult	Female	<3,000	60	Intentional (Directed Mortality)	Fish surplus to hatchery production	Floy Tag, Acoustic Tag
Steelhead	Central California Coast Steelhead - Threatened	Natural (NOR)	Adult Spawning	Female	30	4	Collect and Transport Adult, Tissue sample	Weir and Trap, hook and line, ladder	None
Steelhead	Central California Coast Steelhead - Threatened	Natural (NOR)	Adult Spawning	Male	60	7	Collect and Transport Adult, Tissue sample	Weir and Trap, hook and line, ladder	None
Steelhead	Central California Coast Steelhead - Threatened	Hatchery (HOR)	Adult Spawning	Female	135	13	Collect and Transport Adult, Tissue sample	Weir and Trap, hook and line, ladder	Floy Tag (Subsample)
Steelhead	Central California Coast Steelhead - Threatened	Hatchery (HOR)	Adult Spawning	Male	270	25	Collect and Transport Adult, Tissue sample	Weir and Trap, hook and line, ladder	Floy Tag (subsample)
Steelhead	Central California Coast Steelhead - Threatened	Hatchery (HOR*NOR) (HOR*HOR)	Egg to smolt	Male/female	675,000	475,000 From green egg to smolt	Mark, Tag, Sample, Tissue	In-hatchery Raceway	Ad-clip, or Other External Mark, CWT

b) Broodstock Collection Mainstem Russian River, Dry Creek, and tributaries.

Species	Listing Unit/Stock	Production Origin	Life Stage	Sex	Expected Take	Unintentional Mortality	Take Action	Observe/Collect Method	Marking
Steelhead	Central California Coast Steelhead - Threatened	Natural (NOR)	Adult Spawning	Female	75	4	Collect and Transport Adult, Tissue sample	Weir and Trap, hook and line, ladder	None
Steelhead	Central California Coast Steelhead - Threatened	Natural (NOR)	Adult Spawning	Male	125	7	Collect and Transport Adult, Tissue sample	Weir and Trap, hook and line, ladder	None

Table 3. Estimated listed CCC NOR and HOR Steelhead take levels for Coyote Valley Hatchery by activity

Broodstock Collection at Coyote Valley Hatchery Ladder

Species	Listing Unit/Stock	Production Origin	Life Stage	Sex	Expected Take	Unintentional Mortality	Take Action	Observe/Collect Method	Marking
Steelhead	Central California Coast Steelhead - Threatened	Hatchery (HOR)	Adult	Male	<4,000	80	Intentional (Directed Mortality)	Fish surplus to hatchery production	Floy Tag, Acoustic Tag
Steelhead	Central California Coast Steelhead - Threatened	Hatchery (HOR)	Adult	Female	<4,000	80	Intentional (Directed Mortality)	Fish surplus to hatchery production	Floy Tag, Acoustic Tag
Steelhead	Central California Coast Steelhead - Threatened	Natural (NOR)	Adult Spawning	Female	33	4	Collect and Transport Adult, Tissue sample	Weir and Trap, hook and line, ladder	None
Steelhead	Central California Coast Steelhead - Threatened	Natural (NOR)	Adult Spawning	Male	66	7	Collect and Transport Adult, Tissue sample	Weir and Trap, hook and line, ladder	None
Steelhead	Central California Coast Steelhead - Threatened	Hatchery (HOR)	Adult Spawning	Female	203	20	Collect and Transport Adult, Tissue sample	Weir and Trap, hook and line, ladder	Floy Tag (Subsample)
Steelhead	Central California Coast Steelhead - Threatened	Hatchery (HOR)	Adult Spawning	Male	406	40	Collect and Transport Adult, Tissue sample	Weir and Trap, hook and line, ladder	Floy Tag (subsample)
Steelhead	Central California Coast Steelhead - Threatened	Hatchery (HOR)	Egg to smolt	Male/female	1,015,000	715,000 From green egg to smolt	Mark, Tag, Sample, Tissue	In-hatchery Raceway	Ad-clip or Other External Mark

Table 4. Estimated listed CCC NOR Steelhead take levels for Russian River Hatchery program. Location: Essential Populations.

Take Information for juvenile steelhead monitoring

Species	Listing Unit/Stock	Production Origin	Life Stage	Sex	Expected Take	Unintentional Mortality	Take Action	Observe/Collect Method	Marking
Steelhead	Central California Coast Steelhead - Threatened	Austin Creek (NOR)	Juvenile	Male/Female	1000	30	Collect, Sample Tissue, Stomach Sample	Trap, Seine, Electrofishing,	Maxillary Clip
Steelhead	Central California Coast Steelhead - Threatened	Green Valley Creek (NOR)	Juvenile	Male/Female	500	15	Collect, Sample Tissue, Stomach Sample	Trap, Seine, Electrofishing,	Maxillary Clip
Steelhead	Central California Coast Steelhead - Threatened	Mark West Creek (NOR)	Juvenile	Male/Female	1000	30	Collect, Sample Tissue, Stomach Sample	Trap, Seine, Electrofishing,	Maxillary Clip
Steelhead	Central California Coast Steelhead - Threatened	Dry Creek (NOR)	Juvenile	Male/Female	4000	120	Collect, Sample Tissue, Stomach Sample	Trap, Seine, Electrofishing,	Maxillary Clip
Steelhead	Central California Coast Steelhead - Threatened	Upper Russian River (NOR)	Juvenile	Male/Female	6000	180	Collect, Sample Tissue, Stomach Sample	Trap, Seine, Electrofishing,	Maxillary Clip
Steelhead	Central California Coast Steelhead - Threatened	Maacama Creek (NOR)	Juvenile	Male/Female	1000	30	Collect, Sample Tissue, Stomach Sample	Trap, Seine, Electrofishing,	Maxillary Clip
Steelhead	Central California Coast Steelhead - Threatened	Austin Creek (NOR)	Adult	Male/Female	200	0	Observe/Sample Tissue Dead Animal	Spawning Surveys	None
Steelhead	Central California Coast Steelhead - Threatened	Green Valley Creek (NOR)	Adult	Male/Female	200	0	Observe/Sample Tissue Dead Animal	Spawning Surveys	None
Steelhead	Central California Coast Steelhead - Threatened	Mark West Creek (NOR)	Adult	Male/Female	200	0	Observe/Sample Tissue Dead Animal	Spawning Surveys	None
Steelhead	Central California Coast Steelhead - Threatened	Dry Creek (NOR)	Adult	Male/Female	200	0	Observe/Sample Tissue Dead Animal	Spawning Surveys	None
Steelhead	Central California Coast Steelhead - Threatened	Upper Russian River (NOR)	Adult	Male/Female	500	0	Observe/Sample Tissue Dead Animal	Spawning Surveys	None
Steelhead	Central California Coast Steelhead - Threatened	Maacama Creek (NOR)	Adult	Male/Female	200	0	Observe/Sample Tissue Dead Animal	Spawning Surveys	None