



**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

January 25, 2024

Refer to NMFS No: WCR 2023-02155

James Mazza  
Chief, Regulatory Division  
U.S. Department of the Army  
San Francisco District, Corps of Engineers  
450 Golden Gate Avenue, 4<sup>th</sup> Floor  
San Francisco, California 94102-3404

Re: Endangered Species Act Section 7(a)(2) Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Clear Creek Bridge Project (Corps File No. SPN-2023-00201)

Dear Mr. Mazza:

This letter responds to your August 25, 2023, request for initiation of consultation with NOAA's National Marine Fisheries Service (NMFS) pursuant to Section 7 of the Endangered Species Act (ESA) for the subject action. Your request qualified for our expedited review and analysis because it met our screening criteria and contained nearly all the required information on, and analysis of, your proposed action and its potential effects to Central California Coast (CCC) steelhead (*Oncorhynchus mykiss*), Distinct Population Segment (DPS), Threatened 71 Fed. Reg. 834 (January 5, 2006).

We reviewed the United States Army Corps of Engineers' (USACE) consultation request and initiation package. Where relevant, we have adopted the information and analyses you have provided and/or referenced but only after our independent, science-based evaluation confirmed they meet our regulatory and scientific standards. We adopt by reference here sections of the Flynn Property (11766 Clear Creek Road) Bridge Replacement Project Biological Assessment (BA) (D.W. Alley & Associates. 2022) specifically the *Proposed Project, Fish Habitat, Special Status Fish and Wildlife Species and Impact and Mitigation Discussion* including *Environmental Impacts of the Project and Recommended Mitigation Measures* sections of the BA; 2021 Summary Report on Juvenile Steelhead Densities and Indices of Juvenile Production in the San Lorenzo, Soquel and Aptos Watersheds, Santa Cruz County, California Densities (Alley, D.W. 2022), the electrofishing and relocation plan, and information contained in the USACE' consultation request letter. The information contained in the specified sections are being incorporated for the environmental baseline, action area, effects analysis and incidental take statement.

By email submitted August 11, 2023, USACE requested informal consultation on the Project for the property owner Ms. Kirsten Flynn (Applicant). On August 17, 2023, we notified USACE by email that formal consultation is necessary due to project dewatering and fish relocation. On August 25, 2023, USACE requested formal consultation by email. On September 7, 2023, we informed USACE by email that we needed additional information about the construction and fish



relocation methods. On October 16, 2023, by email, USACE sent NMFS a detailed electrofishing and relocation plan and a 2021 summary report on juvenile steelhead densities in the San Lorenzo Watershed (Alley, D.W. 2022). On October 16, 2023, we initiated formal consultation. On December 5, 2023, we requested by email that USACE extend the action area an additional 50 feet downstream to account for instream turbidity and riparian restoration activities. We also requested they consult with NMFS per the Magnuson-Stevens Fishery Conservation and Management Act (MSA) on Essential Fish Habitat (EFH) specified in the Pacific Salmon Fishery Management Plan. On December 5, 2023, by email, USACE agreed to extending the action area and requested MSA consultation.

On July 5, 2022, the U.S. District Court for the Northern District of California issued an order vacating the 2019 regulations that were revised or added to 50 CFR part 402 in 2019 (“2019 Regulations,” see 84 FR 44976, August 27, 2019) without making a finding on the merits. On September 21, 2022, the U.S. Court of Appeals for the Ninth Circuit granted a temporary stay of the district court’s July 5 order. On November 14, 2022, the Northern District of California issued an order granting the government’s request for voluntary remand without vacating the 2019 regulations. The District Court issued a slightly amended order two days later on November 16, 2022. As a result, the 2019 regulations remain in effect, and we are applying the 2019 regulations here. For purposes of this consultation and in an abundance of caution, we considered whether the substantive analysis and conclusions articulated in the biological opinion and incidental take statement would be any different under the pre-2019 regulations. We have determined that our analysis and conclusions would not be any different.

USACE proposes to permit the replacement of a residential driveway bridge for the Applicant over the waters of Clear Creek, a tributary to the San Lorenzo River in Santa Cruz County. The proposed project is located at 11766 Clear Creek Road in the City of Brookdale, Santa Cruz County, California (Latitude 37.105149°, Longitude -122.113730°). Construction activities will take place between May 1 and October 1 of 2024. As described in the BA, the property was subject to the 2020 CZU Fire Complex. The fire burned the bridge from Clear Creek Road to the residence. The proposed project would replace the residential bridge and driveway. The new bridge will accommodate residential use vehicles, as well as emergency vehicles. The bridge will be 14 feet wide by approximately 25 feet long, supported by steel beams. Work within Corps’ jurisdiction involves placing two clean gravel cofferdams measuring 25 square feet total and would include 70 linear feet of temporary dewatering within 0.02 acres of Clear Creek.

### **ENDANGERED SPECIES ACT: CONDENSED BIOLOGICAL OPINION**

We examined the status of each species that would be adversely affected by the proposed action to inform the description of the species’ “reproduction, numbers, or distribution” as described in 50 CFR 402.02. As discussed in the *Special Status Fish and Wildlife Species* section of the BA, CCC steelhead occur within the action area; critical habitat for CCC steelhead DPS is not designated in the action area. NMFS provides the following supplemental information describing the status of CCC steelhead in the action area and of the CCC steelhead DPS:

While historical and present data on abundance are limited, CCC steelhead numbers are substantially reduced from historical levels. CCC steelhead are present in the San Lorenzo watershed and are generally present in any accessible watershed within their known historical range exhibiting a resilience that has likely slowed their rate of decline relative to other salmonid species. However, long-term population trends suggest a negative growth rate, indicating the DPS may not be viable in the long-term. The most recent status review (SWFSC 2022) stated that while data for the DPS remains generally poor, the new information for CCC steelhead available since the previous viability assessment (NMFS 2016) indicates that overall extinction risk is moderate and has not changed appreciably since the prior assessment.

“Action area” means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR 402.02). As discussed in the *Environmental Impacts of the Project* in the BA, the action area has been defined by impacts to stream channel and impacts to riparian zone as outlined in Table 4 of the BA. Additionally, as specified in email correspondence between NMFS and USACE on December 5, 2023, temporary impacts from the project will extend an additional 50 feet beyond the downstream cofferdam to account for in-stream turbidity and riparian plantings proposed for mitigation.

The “environmental baseline” refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultations, and the impact of State or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency’s discretion to modify are part of the environmental baseline (50 CFR 402.02).

We adopt by reference here the *Fish Habitat, Special Status Fish and Wildlife Species Sections* of the BA and the *2021 Summary Report on Juvenile Steelhead Densities* (Alley, D.W. 2022). NMFS provides the following supplemental information describing the importance of the population/subpopulation(s) in the action area to the species’ survival and recovery:

Clear Creek is tributary to the San Lorenzo River, a functionally independent population within the Santa Cruz Mountains diversity stratum that is essential for recovery of the CCC steelhead DPS. The Santa Cruz Mountains diversity stratum is one of five distinct diversity strata for the CCC steelhead DPS (Bjorkstedt, et.al. 2005). Abundance estimates for smaller coastal streams in the Santa Cruz Mountains diversity stratum indicate low but stable levels, with recent estimates for several streams (Waddell, Scott, Soquel, and Aptos creeks) of individual run sizes of 500 fish or less (62 FR 43937).

Under the ESA, “effects of the action” are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action (see 50 CFR 402.17). In our analysis, which describes the effects of the proposed action, we considered 50 CFR 402.17(a) and (b).

The BA provides a detailed discussion and comprehensive assessment of the effects of the proposed action in *Environmental Impacts of the Project* and is adopted here. NMFS supplements the effects of the proposed action with an analysis of expected construction related turbidity and increase in riverine shade from the wider bridge. In summary, the temporary and long-term effects of this proposed action on juvenile CCC steelhead are:

- Based on information from other relocation efforts, a small number of mortalities is reasonably certain to occur during fish capture and relocation as a result of handling stress, accidental crushing, or electrofishing-related injuries. NMFS estimates injury and mortalities would be two percent or less of those steelhead that are captured and relocated. Up to 36 juvenile steelhead will be captured and 2 may be killed during fish capture relocation and site dewatering;
- Temporary increase in turbidity from construction activities may occur in up to 120 linear feet of Clear Creek (70 feet within the direct project site and 50 feet downstream);
- Temporary reduction in riparian habitat by approximately 119 square feet;
- Increase in riverine shade equivalent to the expanded width of the bridge (4 feet of increased width); and
- Riparian rehabilitation in approximately 290 square feet at a ratio of 1:1 for temporary impacts (35 square feet) and 3:1 for permanent impacts (85 square feet).

As described in *Fish Habitat, Special Status Fish and Wildlife Species* sections in the BA and supplemental information provided in Alley, D.W. (2022), steelhead presence in the action area is likely to occur during and after wet winter/springs with relatively high stormflows when adults gain access to Clear Creek. Therefore, juveniles are expected to be present in the action area during construction. Fish relocation activities pose a risk of injury or mortality to salmonids. Any fish collecting gear, whether passive (Hubert 1996) or active (Hayes et al. 1996) has some associated risk to fish, including stress, disease transmission, injury, or death. The electrofishing and relocation plan will limit mortality or other forms of incidental take within the footprint of the Project. Small amounts of sediment from the project site is expected to be flushed into the stream following the first winter storms post-construction, resulting in slight increases in turbidity above ambient levels, extending approximately 50 feet downstream. NMFS expects these temporary and minor increases in turbidity will be insignificant to CCC steelhead, the loss of riparian vegetation from the bridge abutments is very small due to the area of the proposed bridge abutments being mostly bare and the riparian habitat readily available for the affected populations. The slightly larger footprint of the driveway bridge will not result in a noticeable increase in shade in the heavily forested action area. Mitigation for any loss of riparian habitat will result in conditions similar to pre-project within 2-5 years.

“Cumulative effects” are those effects of future state or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation (50 CFR 402.02 and 402.17(a)). Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the ESA. NMFS does not anticipate any cumulative effects in the action area. The action area is deemed a sensitive and regulated riparian corridor by the Santa Cruz County and state. Therefore, NMFS does not anticipate any major construction or infrastructure projects to occur within the action area that would result in cumulative effects.

The Integration and Synthesis section is the final step in our assessment of the risk posed to species and critical habitat as a result of implementing the proposed action. In this section, we add the effects of the action to the environmental baseline and the cumulative effects, taking into account the status of the species and critical habitat, to formulate the agency’s biological opinion as to whether the proposed action is likely to: (1) Reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing its numbers, reproduction, or distribution; or (2) appreciably diminish the value of designated or proposed critical habitat as a whole for the conservation of the species.

CCC steelhead remain present in most streams throughout the DPS, however, DPS-wide trends indicate a negative growth rate, signaling that steelhead in the CCC DPS are likely to become endangered in the foreseeable future. Clear Creek is a tributary to the San Lorenzo River, which supports the essential and functionally independent San Lorenzo River population. As described in *Fish Habitat* of the BA, Clear Creek is only accessible to spawning adults under certain hydrologic conditions.

Fish capture and relocation activities will result in capture and mortality of steelhead. During stream diversion activities for bridge replacement, NMFS agrees with the estimate in the *Environmental Impacts of the Project* of the BA that up to 36 juvenile steelhead will be captured and 2 would be killed from dewatering and relocation activities during the duration of the Project. Since we expect fish relocation activities will be conducted by qualified fisheries biologists, direct effects to and mortality of juvenile steelhead during capture will be minimized. Therefore, our risk assessment is whether the loss of these individuals will reduce appreciably the likelihood of both the survival and recovery of CCC steelhead in the wild by reducing its numbers, reproduction, or distribution. Because no adults are expected to be harmed and due to the relatively large number of juveniles produced by each spawning pair, steelhead spawning in the Clear Creek and other tributaries of the San Lorenzo watershed in future years are likely to produce enough juveniles to replace the few that may be killed as a result of the proposed activities. Therefore, it is unlikely the loss of these individuals will reduce appreciably the likelihood of the survival and recovery of CCC steelhead within Clear Creek or the San Lorenzo River population. Other tributaries in the San Lorenzo River support the San Lorenzo population and other populations of the CCC steelhead DPS. These populations will not be affected by the proposed action and are expected to continue to contribute CCC steelhead numbers, reproduction, and distribution. As a result, the CCC steelhead DPS numbers, reproduction, or distribution will not be appreciably reduced.

The proposed action will cause minor short-term negative impacts (i.e., turbidity, dewatering and vegetation removal) that are not expected to alter the overall habitat conditions in the action area. As described in the *Recommended Mitigation Measures* section in the BA, erosion control measures will be in place and no long-term negative impacts to habitat in the action area are expected. Turbidity levels in the creek following the first post-construction winter flow events will resemble ambient wet season levels. NMFS expects these temporary and minor increases in turbidity will be insignificant to CCC steelhead. Habitat conditions in the action area will be restored post-project so it is unlikely that spawning, rearing or migratory habitat at the DPS-level will experience any adverse impacts.

Regarding future climate change impacts in the action area, California is likely to be subject to higher average summer air temperatures and lower total precipitation levels. Reductions in the amount of snowfall and rainfall would reduce streamflow levels in Northern and Central Coastal rivers. Estuaries may also experience changes in productivity due to changes in freshwater flows, nutrient cycling, and sediment amounts. For this action, effects of construction activities are minor and mainly temporary. Long-term changes in habitat in the action area would be very small. Thus, the effects of the proposed action are unlikely to combine with climate change impacts in more than a negligible way now or in the future.

After reviewing and analyzing the current status of the listed species, the environmental baseline within the action area, the effects of the proposed action, the effects of other activities caused by the proposed action, and cumulative effects, it is NMFS' biological opinion that the proposed action is not likely to jeopardize the continued existence of CCC steelhead.

### **ENDANGERED SPECIES ACT: INCIDENTAL TAKE STATEMENT**

Section 9 of the ESA and Federal regulations pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without a special exemption. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. "Harm" is further defined by regulation to include significant habitat modification or degradation that actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding, or sheltering (50 CFR 222.102). "Harass" is further defined by interim guidance as to "create the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering." "Incidental take" is defined by regulation as takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant (50 CFR 402.02). Section 7(b)(4) and section 7(o)(2) provide that taking that is incidental to an otherwise lawful agency action is not considered to be prohibited taking under the ESA if that action is performed in compliance with the terms and conditions of this ITS.

#### **Amount or Extent of Take**

In the biological opinion, NMFS determined that incidental take is reasonably certain to occur as follows:

- Up to 36 juvenile steelhead will be captured and relocated during stream dewatering for the Project during the construction season, 2 percent of these fish (1 fish) will be injured or killed, and one percent of fish (1 fish) present in the reach will die from stranding after dewatering is completed;

### **Effect of the Take**

In the biological opinion, NMFS determined that the amount or extent of anticipated take, coupled with other effects of the proposed action, is not likely to result in jeopardy to the species.

### **Reasonable and Prudent Measures**

“Reasonable and prudent measures” are measures that are necessary or appropriate to minimize the impact of the amount or extent of incidental take (50 CFR 402.02).

NMFS believes the following reasonable and prudent measures are necessary and appropriate to minimize take of CCC steelhead:

1. undertake measures to ensure that injury and mortality to steelhead resulting from fish relocation and dewatering activities is low; and
2. prepare and submit plans and reports regarding fish capture and relocation, dewatering, construction activities, and riparian mitigation.

### **Terms and Conditions**

In order to be exempt from the prohibitions of section 9 of the ESA, the Federal action agency must comply (or must ensure that any applicant complies) with the following terms and conditions. The [name Federal agency] or any applicant has a continuing duty to monitor the impacts of incidental take and must report the progress of the action and its impact on the species as specified in this ITS (50 CFR 402.14). If the entity to whom a term and condition is directed does not comply with the following terms and conditions, protective coverage for the proposed action would likely lapse.

1. The following terms and conditions implement reasonable and prudent measure 1:
  - a. The Applicant or contractor will allow any NMFS employee(s), or any other person designated by NMFS, to accompany field personnel to visit the project sites during activities described in this opinion.
  - b. The Applicant or contractor will retain qualified biologists with expertise in the area of anadromous salmonid biology, including handling, collecting, and relocating salmonids; salmonid/habitat relationships; and biological monitoring of salmonids. All fisheries biologists working on this project will be qualified to conduct fish collections in a manner that minimizes all potential risks to ESA-listed salmonids. Electrofishing, if used, shall be performed by a qualified biologist and conducted according to the NOAA’s electrofishing guidelines (NMFS 2000). See: <https://media.fisheries.noaa.gov/dam-migration/electro2000.pdf>.

- c. The Applicant or contractor will ensure that a biologist monitors the construction site during placement and removal of cofferdams and channel diversion to ensure that any adverse effects to steelhead are minimized. A biologist will be on site during all dewatering events to capture, handle, and safely relocate salmonids to an appropriate location. The biologist will notify NMFS biologist Yvette Redler-Medina at [yvette.redler-medina@noaa.gov](mailto:yvette.redler-medina@noaa.gov), one week prior to capture activities in order to provide an opportunity for NMFS staff to observe the activities. During fish relocation activities the fisheries biologist shall contact NMFS staff at the above email, if capture, injury, or mortality of federally listed salmonids exceeds the take listed above at which time NMFS will stipulate measures to reduce the take of steelhead.
  - d. Steelhead will be handled with extreme care and kept in water to the maximum extent possible during rescue activities. All captured fish will be kept in cool, shaded, aerated water protected from excessive noise, jostling, or overcrowding any time they are not in the stream, and fish will not be removed from this water except when released. To avoid predation, the biologist will have at least two containers and segregate young-of-year from larger age classes and other potential aquatic predators. Captured steelhead will be relocated, as soon as possible, to a suitable instream location in which suitable habitat conditions are present to allow for adequate survival of transported fish and fish already present.
  - e. If any steelhead are found dead or injured beyond the anticipated incidental take numbers, the biological monitor will contact NMFS biologist, Yvette Redler-Medina, by phone at (916) 539-7066 or email at [yvette.redler-medina@noaa.gov](mailto:yvette.redler-medina@noaa.gov). The purpose of the contact is to review the activities resulting in take, determine if additional protective measures are required, and to ensure appropriate collection and transfer of salmonid mortalities and tissue samples. All salmonid mortalities will be retained. Tissue samples are to be acquired from each salmonid mortality per the methods identified in the NMFS Southwest Fisheries Science Center Genetic Repository protocols (contact the above NMFS staff for directions) and sent to: NOAA Coastal California Genetic Repository; Southwest Fisheries Science Center; 110 McAllister Way; Santa Cruz CA 95060.
  - f. Non-native fish that are captured during fish relocation activities shall not be relocated to anadromous fish streams, or areas where they could access anadromous fish habitat.
2. The following terms and conditions implement reasonable and prudent measure 2:
    - a. Annual Reporting – The Applicant must prepare and submit annual reports to NMFS for Project activities as outlined below. The reports must be submitted electronically to NMFS biologist Yvette Redler at [yvette.redler-medina@noaa.gov](mailto:yvette.redler-medina@noaa.gov) by January 31 the following year. Reports prepared for compliance with other agency requirements that contain the information requested



below would be acceptable. The report must contain, at minimum, the following information:

- i. Construction and Maintenance related activities – The report(s) must include the dates construction began and was completed; a discussion of any unanticipated effects or unanticipated levels of effects on salmonids, including a description of any and all measures taken to minimize those unanticipated effects and a statement as to whether or not the unanticipated effects had any effect on steelhead; the number of steelhead killed or injured during the project action; and photographs taken before, during, and after the activity from photo reference points.
- ii. Fish relocation – The report(s) must include a description of the location from which fish were removed and the release site(s) including photographs; the date and time of the relocation effort; a description of the equipment and methods used to collect, hold, and transport steelhead; the number of fish relocated by species; the number of fish injured or killed by species and a brief narrative of the circumstances surrounding steelhead injuries or mortalities; and a description of any problems which may have arisen during the relocation activities and a statement as to whether or not the activities had any unforeseen effects.
- iii. Post-Construction Vegetation Monitoring and Reporting – The applicant must develop and submit for NMFS' review a plan to assess the success of revegetation of the riparian mitigation sites. Reports documenting post-project conditions of vegetation installed at the sites will be prepared and submitted annually for the first two years following project completion, unless the site is documented to be performing poorly, then monitoring requirements will be extended. Reports will document vegetation health and survivorship and percent cover, natural recruitment of native vegetation (if any), and any maintenance or replanting needs. Photographs must be included. If poor establishment is documented, the report must include recommendations to address the source of the performance problems.

### **Reinitiation of Consultation**

Under 50 CFR 402.16(a): “Reinitiation of consultation is required and shall be requested by the Federal agency or by the Service where discretionary Federal agency involvement or control over the action has been retained or is authorized by law and: (1) If the amount or extent of taking specified in the incidental take statement is exceeded; (2) If new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence; or (4) If a new species is listed or critical habitat designated that may be affected by the identified action.”

**MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT  
ESSENTIAL FISH HABITAT RESPONSE**

NMFS also reviewed the proposed action for potential effects on essential fish habitat (EFH) designated under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), including conservation measures and any determination you made regarding the potential effects of the action. This review was conducted pursuant to section 305(b) of the MSA, implementing regulations at 50 CFR 600.920, and agency guidance for use of the ESA consultation process to complete EFH consultation. Section 305 (b) of the MSA directs Federal agencies to consult with NMFS on all actions or proposed actions that may adversely affect EFH. Under the MSA, this consultation is intended to promote the conservation of EFH as necessary to support sustainable fisheries and the managed species' contribution to a healthy ecosystem. For the purposes of the MSA, EFH means "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity", and includes the associated physical, chemical, and biological properties that are used by fish (50 CFR 600.10). Adverse effect means any impact that reduces quality or quantity of EFH, and may include direct or indirect physical, chemical, or biological alteration of the waters or substrate and loss of (or injury to) benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality or quantity of EFH. Adverse effects may result from actions occurring within EFH or outside of it and may include direct, indirect, site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810). Section 305(b) of the MSA also requires NMFS to recommend measures that can be taken by the action agency to conserve EFH. Such recommendations may include measures to avoid, minimize, mitigate, or otherwise offset the adverse effects of the action on EFH (50 CFR 600.0-5(b)).

NMFS determined the proposed action would adversely affect EFH under the Pacific Coast Salmon Fishery Management Plan as follows: 1) temporary and minor loss of riparian vegetation, and 2) temporary and minor increases in turbidity. There are no Habitat Areas of Particular Concern located in the action area for this proposed project.

Riparian vegetation trimming or removal may result in minor, temporary loss of cover or woody material available for stream recruitment. Temporary impacts to water quality may occur as the result of cofferdam installation and removal including a minor increase in turbidity following first winter storm events post construction. These effects are analyzed in the ESA section of this letter, and are applicable for this EFH effects analysis. This project includes best management practices and minimization measures (described in the BA and other initiation package materials) that are anticipated to avoid and minimize potential impacts to EFH. In addition, the effects described above are minor and temporary as mitigation for any loss of riparian vegetation is proposed as part of the Project, therefore, NMFS has no EFH Conservation Recommendations to offer at this time that would further reduce impacts to EFH.

USACE must reinitiate EFH consultation with NMFS if the proposed action is substantially revised in a way that may adversely affect EFH, or if new information becomes available that affects the basis for NMFS' EFH conservation recommendations (50 CFR 600. 920(l)). This concludes the MSA consultation.

This letter underwent pre-dissemination review using standards for utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106-554). The biological opinion will be available through NOAA Institutional Repository <https://repository.library.noaa.gov/welcome>. A complete record of this consultation is on file at Santa Rosa Office.

Please direct questions regarding this letter to Yvette Redler-Medina, Santa Cruz, California, at [yvette.redler-medina@noaa.gov](mailto:yvette.redler-medina@noaa.gov), 916-539-7066.

Sincerely,



Alecia Van Atta  
Assistant Regional Administrator  
California Coastal Office

cc: Jennifer L. Stabile, USACE SF District, [Jennifer.L.Stabile@usace.army.mil](mailto:Jennifer.L.Stabile@usace.army.mil)  
NMFS E-file: 151422WCR2023SR00188

## REFERENCES

- Alley, D.W. 2022. 2021 Juvenile Steelhead Densities in the San Lorenzo, Soquel and Aptos Watersheds, Santa Cruz County, California. Prepared by D.W. ALLEY & Associates.
- Bjorkstedt, E. P., B.C. Spence, J.C. Garza, D.G. Hankin, D. Fuller, W.E. Jones, J.J. Smith and R. Macedo. 2005. An analysis of historical population structure for evolutionarily significant units of Chinook salmon, coho salmon, and steelhead in the north-central California coast recovery domain. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southwest Fisheries Science Center, NOAA-TM-NMFS-SWFSC-382. 210 pp.
- D.W. Alley & Associates. 2022. Flynn Property (11766 Clear Creek Road) Bridge Replacement Project-Biological Assessment. August 2022.
- Hayes, D.B., C.P. Ferreri, and W.W. Taylor. 1996. Active fish capture methods. Pages 193-220 in B.R. Murphy and D.W. Willis, editors. Fisheries Techniques, 2nd edition. American Fisheries Society. Bethesda, Maryland. 732 pages.
- Hubert, W.A. 1996. Passive capture techniques. Pages 157-192 in B.R. Murphy and D.W. Willis, editors. Fisheries Techniques. Second Edition. American Fisheries Society. Bethesda, Maryland. 732 pages.
- NMFS 2000. Guideline for Electrofishing Waters Containing Salmonids listed under the Endangered Species Act (ESA). June 2000

<https://media.fisheries.noaa.gov/dam-migration/electro2000.pdf>

NMFS (National Marine Fisheries Service). 2016. 2016 5-Year Review: Summary & Evaluation of Central California Coast Steelhead, National Marine Fisheries Service, West Coast Region, North Central-Coast Office, Santa Rosa, California.

Southwest Fisheries Science Center. 2022. Viability assessment for Pacific salmon and steelhead listed under the Endangered Species Act: Southwest. 11 July 2022 Report to National Marine Fisheries Service – West Coast Region from Southwest Fisheries Science Center, Fisheries Ecology Division 110 McAllister Way, Santa Cruz, California 95060.

Williams, T.H., B.C. Spence, D.A. Boughton, R.C. Johnson, L. Crozier, N. Mantua, M. O'Farrell, and S. T. Lindley. 2016. Viability Assessment for Pacific salmon and steelhead listed under the Endangered Species Act: Southwest, 2 February 2016 Report to National Marine Fisheries Service West Coast Region from Southwest Fisheries Science Center, Fisheries Ecology Division 110 Shaffer Road, Santa Cruz, California 95060.