



**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

September 29, 2022

Refer to NMFS No: WCRO-2022-01147

L. Kasey Sirkin
Lead Biologist, Eureka Field Office
U.S. Department of the Army Corps of Engineers
601 Startare Drive, #13
Eureka, California 95501

Re: Reinitiation of Endangered Species Act Section 7(a)(2) Consultation and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Culvert Maintenance on Old Bear Valley and Silver Hills Creeks in Marin County, California (Corps File No. 2018-00464)

Dear Ms. Sirkin:

This letter responds to your August 30, 2022, 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 all required information on, and analysis of, your proposed action and its potential effects to listed species and designated critical habitat. We reviewed the U.S. Army Corps of Engineers' (Corps) consultation request and related 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.

To conduct the assessment presented in this biological opinion (opinion), NMFS examined an extensive amount of information from a variety of sources. Detailed background information on the biology and status of the listed species and critical habitat has been published in a number of documents including peer reviewed scientific journals, primary reference materials, and governmental and non-governmental reports. For information that has been taken directly from published, citable documents, those citations have been referenced in the text and listed at the end of this document.

Additional information regarding the potential effects of the proposed activities on the listed species, their anticipated response to these actions, and the environmental consequences of the actions was formulated from the following resources. Specific sections that are hereby incorporated into this opinion by reference are noted as follows:

BA - Sycamore Associates. 2010. Supplemental Biological Assessment (BA) for Maintenance Cleaning of 47 Road Culverts/Drainages. West Marin County, California. Marin County Department of Public Works (summarizes and updates Sycamore BA 2004). May, 2010. 28pp.



- Pages 1-6, including the following sections: 1) the project description, 2) project area, 3) effects of the proposed project, and 4) frequency, duration, intensity, severity of effects to special-status species, wetlands, and waters of the U.S./State.
- Pages 10-13, includes effects specifically to Central California Coast (CCC) coho salmon (*Oncorhynchus kisutch*) and steelhead (*O. mykiss*).

NMFS 2010. Biological Opinion for Maintenance Cleaning of Bear Valley Creek Channel and Drainage Ditch. July 19, 2010; for the US Army Corps of Engineers permit 2009-00115N.

- Section II. Proposed Action – The proposed action from the NMFS 2010 opinion and this 2022 reinitiation are nearly identical. One significant difference is that the 2010 opinion was based on one year of activities, whereas this reinitiation will assume sediment clearing activities may occur every three to five years. However, this increase in frequency is not expected to be significantly change our original effects analysis and resulting impacts to the species are expected to be similar.
- Section IV. Status of the Species and Critical Habitat – Though it has been 12 years since the original opinion was issued, the current status of the species and critical habitat remain unchanged.
- Section V. Environmental Baseline – There has been no ongoing fish or habitat surveys within the action area since the 2010 opinion was written. However, we expect the status of the species and critical habitat within the action area and any effects of past and present Federal, State, or private actions to be consistent with our 2010 opinion.
- Section VI. Effects of the Proposed Action – Effects to listed salmonids related to dewatering, turbidity, and improved fish passage from the 2010 opinion are consistent with the currently proposed action.
- Section VIII. Integration and Synthesis – The impact to listed species for the currently proposed action is expected to be consistent with this section from our 2010 opinion. The project will likely impact CCC coho salmon, CCC steelhead and their critical habitat. The number of individual fish impacted will be small due to degraded habitat conditions, few salmonids are expected within the action area, the construction schedule avoids adult and smolt migration periods, and work will often be conducted in areas where the channel is dry.
- Section IX. Conclusion – NMFS opinion is that the project is not likely to jeopardize the continued existence of threatened CCC steelhead or endangered CCC coho salmon, nor is the project likely to result in the destruction or adverse modification of designated critical habitat for CCC coho salmon.

Fawcett Environmental Consulting. 2010. Whitehouse Pool Culvert and Channel maintenance Project: Report on Pre-construction Surveys, Monitoring, Salvage and Relocation for California Red-legged Frog and Steelhead. November 23, 2010. 3pp.

- Pages 1-3, including the following information: Two juvenile steelhead were found below the outlet of the culvert beneath Bear Valley road on September 27 and 29, 2010. This pool was not dewatered, but the steelhead were netted and relocated to suitable habitat upstream of the action area.

- WRA Inc. 2012. West Marin Sediment Removal Project – Pre- and Post-Construction Report.
- Pages 9-12, including the following information: Dewatering and fish relocation BMPs. On October 22, 2012, Whitehouse pool was dewatered and seven CCC steelhead were netted and relocated to suitable habitat downstream of the action area.

WRA Inc. 2022 (WRA 2022). Pre-Construction Notification. Whitehouse Pool Sediment Reduction Project. Marin County, California. Prepared For: Marin County Department of Public Works. Submitted to: U.S. Army Corps of Engineers. July, 2022. 66 pp.

- Section 1.0. Introduction and Purpose, including the following information: Heavy rains in late 2021 and early 2022 brought large additional quantities of decomposed granite from neighboring slopes that were left bare by the Woodward Fire of 2020. As a result, sediment quickly added to typical annual accumulations and has reached the point where stream flow from the Silver Hills through the culvert at MP 25.00 and into Lagunitas Creek is completely blocked.
- Section 2.0. Project Description, including all sections which provide specific project details. Includes Table 2 denoting expected frequency (in years) of maintenance required.
- Sections 3.1 – 3.3 and 3.4.3. Avoidance and Minimization Measures, includes all measures for protecting biological resources, listed salmonids, and work period restricted to June 15 to October 15.
- Section 4.0. Monitoring and Reporting.
- Figure 1. and Appendix A. Maps of Project Area.

Marin County Public Works. 2022. Memo from Kallie Kull (Marin County) to Jodi Charrier (NMFS). Information to Support the BA. August 19, 2022. 2pp.

- Information contained in this memo documented: 1) the anticipated frequency of sediment removal will be every three to five years, 2) that the channel(s) have been cleared twice since 2010, 3) a 2022 landslide in the upper watershed likely caused by the 2021 Inverness Ridge Fire contributed to the current 100 percent culvert blockage, and 4) as of August, 2022, the upper channel is dry and only the lower channel will require dewatering to keep tidal water out of the project area.

Consultation History

On August 15, 2022, NMFS received an email notification (with the 2022 pre-construction notification attached) from the Corps of an application from the Marin County for a culvert clearing project on Bear Valley Creek at Whitehouse Pool. The proposed action was similar in scope to that which was covered under NMFS' 2010 opinion and the Corps inquired as to whether the newly proposed action could be covered under the existing opinion. NMFS replied that same day with a recommendation that the Section 7 be reinitiated to update the project description, effects analysis, and take statement to include routine maintenance every one to five years for the foreseeable future.

On August 16, 2022, NMFS emailed the Corps and Marin County suggesting that if all parties could provide the necessary information in a timely manner, that NMFS could potentially expedite the Section 7 process in time for construction activities to begin by October 1, 2022.

On August 19, 2022, Marin County provided all requested project information to NMFS.

On August 30, 2022, the NMFS received the official request from the Corps to reinstate NMFS' 2010 Biological Opinion for Maintenance Cleaning of Bear Valley Creek Channel and Drainage Ditch.

Project Description

The Corps has received an application from the Marin County Department of Public Works (MCDPW) for a permit pursuant to Section 404 of the Clean Water Act (CWA) of 1972, as amended, 33 U.S.C. § 1344 *et seq.*, and Section 10 of the Rivers and Harbors Act (RHA) of 1899, as amended, 33 U.S.C. § 403 *et seq.*, to remove accumulated sediment from approximately 970 linear feet of Silver Hills Creek and Old Bear Valley Creek, tributary to Lagunitas Creek, in the Whitehouse Pool area. The proposed project is located at mile post 25.00 Sir Francis Drake Boulevard near the City of Tomales Bay, Marin County, California; Latitude 38.0342°, Longitude -122.4859. The proposed project has been reviewed previously on July 19, 2010, for its impacts to listed species and their designated critical habitat. No changes have occurred to the project description since the previous opinion was issued; however, re-initiation is necessary for the original opinion to be updated to include phrasing that will allow periodic maintenance of the culverts and channels, since the 2010 opinion describes a one-time project occurrence.

The proposed project will remove accumulated sediment from culverts and creek corridors by installing two temporary cofferdams. Sediment will be removed from a total of approximately 0.08 acre of wetlands and 0.05 acre of Waters of the United States. To mitigate temporary impacts from construction, the contractor will implement the list of avoidance and minimization measures as described in WRA 2022. Additional details on the project can be found in the project documents listed above.

The Corps has the authority to renew their permit every five years indefinitely. This opinion includes an analysis of potential long-term effects to listed species as a result of implementing the proposed action. Therefore, as long as no criteria for reinitiation (as detailed in Section 2.10 and listed below) are triggered, this opinion anticipates subsequent permit renewals by the Corps.

The Corps will notify NMFS during the pre-application phase of permit renewal and NMFS will review the Program (including annual reports) to confirm that:

- The amount or extent of incidental taking specified in the ITS has not been exceeded;
- There is no new information that reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion;
- The identified action has not been subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the opinion; or
- No new species are listed or critical habitat designated that may be affected by the action.

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. We also examined the condition of critical habitat throughout the designated area and discuss the function of the physical or biological features essential to the conservation of the species that create the conservation value of that habitat. As part of the consultation request package, the BA, NMFS 2010 opinion, and WRA 2022 provide the status of the species and critical habitat that are being adopted here.

"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 part of the consultation request package, the BA, NMFS 2010 opinion, and WRA 2022 provide the description of the action area that is being adopted here.

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). As part of the consultation request package, the BA, NMFS 2010 opinion, and WRA 2022 describe the Environmental Baseline that is being adopted here. Few salmonids are expected within the action area. Any salmonids present in the action area during the construction window likely make up a small proportion from the Bear Valley Creek watershed, or the CCC coho salmon Evolutionary Significant Unit (ESU), or CCC steelhead Distinct Population Segment (DPS). The improved migratory habitat resulting from the sediment removal will likely result in greater numbers of fish spawning in the watershed in future years, which could increase the coho salmon and steelhead population in Bear Valley Creek.

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, combined with NMFS 2010 opinion, and WRA 2022 provides a detailed discussion and comprehensive assessment of the effects of the proposed action and is adopted here. NMFS has evaluated this section and after our independent, science-based evaluation determined it meets our regulatory and scientific standards. The Corps proposes to authorize the continued maintenance of this culvert and clearing of sediment within the action area. The temporary and long-term effects of this proposed action are unchanged from those assessed in the NMFS 2010 opinion.

CCC coho salmon and CCC steelhead may be affected by the proposed action. The effects of construction will be temporary and will not have any long-term effects on the species. Any

potential impacts to designated critical habitat are expected to be temporary. There is no permanent loss of habitat quality resulting from the proposed action. Clearing of the culvert will improve fish passage and water quality conditions within the action area. During past project activities, two steelhead were relocated in 2010, and seven were relocated in 2012. There were no steelhead mortalities and no coho salmon were observed during dewatering or relocation. At most, a few individual juvenile fish within one population of each species will be handled every three to five years as a result of the proposed action.

“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). 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 is not aware of any future State or private activities that are reasonably certain to occur within the action area.

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 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. The Integration and Synthesis Section for this reinitiation is the same as in NMFS’ 2010 opinion.

The Project will likely directly impact CCC steelhead, CCC coho salmon, and their critical habitat. The number of impacted fish will likely be small, considering few salmonids are expected within the action area due to the currently degraded rearing habitat conditions and a construction schedule that avoids adult and smolt migration periods. Therefore, NMFS expects few salmonids are likely to be encountered during the Project. Furthermore, mortality rates during relocation and dewatering activities are likely below one percent, so the risk of mortality to any encountered salmonid is low.

Turbidity impacts will likely be temporary. Where turbidity effects exist, they will be minimized by fish relocation activities and specific project design considerations, such as construction site dewatering and BMP implementation. The Project will isolate and degrade both coho salmon and steelhead critical habitat during the several-day work window, specifically impacting juvenile rearing habitat. However, the Project will ultimately improve critical habitat condition within the action area by removing accumulated sediment and re-establishing a natural, tidally influenced stream channel supporting juvenile rearing and adult migration.

With regard to critical habitat, NMFS expects that the short-term loss of a small amount of stream bed and bank from dewatering the action area will not appreciably diminish the value of designated CCC coho salmon critical habitat. The disturbed area represents a very small portion of the overall Bear Valley Creek watershed, the current condition of that habitat is severely degraded, and the amount of time the habitat will be dewatered is fleeting. Instead, the restorative nature of the Project will likely improve critical habitat within the action area.

As noted above, few salmonids are expected within the action area. Any salmonids present in the action area during the construction window likely make up a small proportion from the Bear Valley Creek watershed or the CCC coho salmon ESU or CCC steelhead DPS. It is unlikely that the small potential loss of juveniles in 2010 will impact future adult returns, due to the relatively large number of juveniles produced by each spawning pair. Furthermore, the improved migratory habitat resulting from the Project will likely result in greater numbers of fish spawning in the watershed in future years, which should increase the steelhead and coho salmon population in Bear Valley Creek.

Therefore, due to the anticipated small number of coho salmon and steelhead likely affected by the Project, as well as the short-lived impacts to critical habitat within the Project reach, NMFS does not believe the Project will appreciably diminish the abundance, productivity, diversity, or spatial structure of the Lagunitas Creek population of CCC coho salmon and CCC steelhead. Conversely, the Project is likely to improve habitat conditions for these species, which in turn may improve population viability in the future.

After reviewing and analyzing the current status of the listed species and critical habitat, 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 coho salmon or CCC steelhead or destroy or adversely modify their designated critical habitat.

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 opinion, NMFS determined that a low level of incidental take of juvenile CCC coho salmon and CCC steelhead in the form of injury, harm, or mortality is reasonably certain to occur as follows during dewatering and fish relocation events that occur during sediment removal activities is reasonably certain to occur as follows:

The number of juvenile CCC coho salmon or CCC steelhead that may be incidentally taken during dewatering and fish relocation events associated with the proposed project is expected to be very small, but cannot be accurately

quantified due to: 1) the specific number of fish that may be present is unknown, and 2) the specific number of fish that may be stranded is unknown. Based on prior experience with current relocation techniques and protocols likely to be used to conduct the dewatering and fish relocation, unintentional mortality of listed salmonids expected from capturing and handling fish is not likely to exceed three percent of the total fish handled for each culvert maintenance event. The amount of incidental take during dewatering and fish relocation will be considered exceeded if more than three percent of the total fish handled are injured or killed.

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 or destruction or adverse modification of critical habitat.

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 coho salmon and CCC steelhead:

1. Undertake measures to ensure that injury and mortality to steelhead resulting from fish collection, relocation, and dewatering activities is low.
2. Prepare and submit an annual report regarding the number of fish encountered and relocated, or mortalities during the maintenance to document the effects of construction, relocation, and dewatering activities as well as any monitoring activities conducted.

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. Marin County 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.

- The following terms and conditions implement reasonable and prudent measure 1:
 1. Marin County 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. Marin County ensure that all biologists working on projects are qualified to conduct fish collections in a manner which minimizes all potential risks to steelhead. Electrofishing, if used, will be performed by a qualified biologist and conducted according to the NMFS Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act, June 2000. See: <http://www.nwr.noaa.gov/ESA-Salmon-Regulations-Permits/4d-Rules/upload/electro2000.pdf>.

2. The biologists will monitor the construction sites during placement and removal of cofferdams and channel diversions to ensure that any adverse effects to salmonids are minimized. The biologists will be on site during all dewatering events to capture, handle, and safely relocate steelhead to an appropriate location.
 3. Listed salmonids 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 biologists will have at least two containers and segregate young-of-year from larger age classes and other potential aquatic predators. Captured fish 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.
 4. If any salmonids are found dead or injured, the biological monitor will contact the NMFS North Central Coast Office in Santa Rosa, California at (707)575-6050. 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.
- The following terms and conditions implement reasonable and prudent measure 2:
 1. Marin County must provide written reports to NMFS in the year following construction. Reports must be submitted to NMFS North Central Coast Office, Attention: Central Coast Branch Chief, 777 Sonoma Avenue, Room 325, Santa Rosa, California 95404-6528.
 2. Any injuries or mortality that exceeds three percent shall be reported to the NMFS Santa Rosa Office by email within 48 hours and construction activities shall cease until a NMFS biologist is on site to oversee the remainder of any fish relocation activities.
 3. Any steelhead mortalities must be retained, placed in an appropriately sized whirl-pack or zip-lock bag, labeled with the date and time of collection, fork length, location of capture, and frozen as soon as possible. Frozen samples must be retained until specific instructions are provided by NMFS.

Conservation Recommendations

Section 7(a)(1) of the ESA directs Federal agencies to use their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of the threatened and endangered species. Specifically, conservation recommendations are suggestions regarding discretionary measures to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding the development of information (50 CFR 402.02). NMFS offers the following Conservation Recommendation:

1. Marin County should identify and prioritize any maintenance and construction projects which, if implemented, can improve ESA-listed salmonid migration or in-stream environmental conditions.

Reinitiation of Consultation

As 50 CFR 402.16 states, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained or is authorized by law and if: (1) The amount or extent of incidental taking specified in the ITS is exceeded, (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion, (3) the agency action is subsequently modified in a manner that causes an effect on the listed species or critical habitat that was not considered in this opinion, or (4) a new species is listed or critical habitat designated that may be affected by the action.

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 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.

NMFS determined the proposed action would adversely affect EFH as follows:

- EFH for species managed under the Pacific Coast Salmon Fishery Management Plan.

While the proposed action will result in adverse effects to EFH, including disturbance created by the removal of sediment, and temporary increase in turbidity; the proposed project contains measures to minimize, mitigate, or otherwise offset the adverse effects; thus, no EFH Conservation Recommendations are included in this opinion.

The Corps 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 North-Central Coast Office in Santa Rosa, California.

Please direct questions regarding this letter to Jodi Charrier of the North-Central Coast Office in Santa Rosa at 707-575-6069 or jodi.charrier@noaa.gov if you have any questions concerning this consultation, or if you require additional information.

Sincerely,



Alecia Van Atta
Assistant Regional Administrator
California Coastal Office

cc: Kendra Spicher, Kendra.a.spicher@usace.army.mil, U.S. Army Corps of Engineers,
San Francisco, California
Copy to e-file: 151422SWR2009SR00280