UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802

April 8, 2026 **Refer to NMFS No:** WCR-2014-01797

David K. White
California Supervisor
NOAA Office of Habitat Conservation, Restoration Center
777 Sonoma Avenue, Suite 325
Santa Rosa, California 95404

Re: Extension Request and Revised Incidental Take Statement for the NOAA Restoration Center's and U.S. Army Corps of Engineers' Programmatic Consultation on Funding and Permitting Restoration Projects within Watersheds of San Luis Obispo, Santa Barbara, Ventura, Los Angeles, Orange and San Diego Counties, California

Dear Mr. White:

On February 26, 2026, NOAA's National Marine Fisheries Service (NMFS) received a written request from the NOAA Restoration Center's (NOAA RC) request, on behalf of the NOAA RC and the U.S. Army Corps of Engineers (Corps) Los Angeles District, for a one-year extension of the "Programmatic consultation on funding and permitting restoration projects within watersheds of San Luis Obispo, Santa Barbara, Ventura, Los Angeles, Orange and San Diego counties, California" (hereafter 'Program'). The NOAA RC, as the lead federal action agency for the Program, and NMFS completed a programmatic consultation under Section 7 of the Federal Endangered Species Act (ESA) for the Program's 10-year term, which was formalized by NMFS in a biological opinion signed on December 23, 2015 (opinion). The Program covers certain fisheries habitat-restoration projects in all coastal anadromous streams from the northern San Luis Obispo County line to the U.S.-Mexico border, which have been authorized under a 10-year regional general permit issued by the Corps. The opinion includes an incidental take statement (ITS) with reasonable and prudent measures and non-discretionary terms and conditions necessary to avoid, minimize, or monitor incidental take of ESA-listed species. In our opinion, we concluded that the Program was not likely to jeopardize the continued existence of the threatened Southern-Central California Coast (S-CCC) steelhead (*Oncorhynchus mykiss*) Distinct Population Segment (DPS) or the endangered Southern California (SC) steelhead DPS, and that the Program was not likely to destroy or adversely modify their designated critical habitats, in accordance with section (7)(a)(2) of the ESA.

NMFS has reviewed the implementations that the NOAA RC approved under the Program since December 23, 2015. As detailed in your letter, the amount of incidental take caused by Program activities has been less than anticipated. The Program could implement up to 15 projects within the action area annually (i.e., up to 150 total projects over the 10-year term). Your letter states that since December 23, 2015, the NOAA RC has authorized 12 projects under the Program, which is 8 percent of the total number of authorized projects anticipated for the Program's 10-year term. Each action included in the Program met the suitability criteria, and the amount or

extent of incidental take was less than the amount analyzed in our opinion. Similarly, the extent of impacts to critical habitats during construction of the restoration projects was also considerably less.

The NOAA RC is not proposing changes to how projects are approved for implementation under the Program. NMFS expects that the Program will continue to include avoidance and minimization measures and reasonable and prudent measures to minimize the amount or extent of incidental take of ESA-listed salmonids resulting from fish relocation, dewatering, and instream construction activities. Additionally, there have been no new species listed, no changes to the status of existing listed species, and no newly designated or modified critical habitats in the Program's action area since the issuance of the opinion. Based on the above, NMFS agrees with the NOAA RC that a one-year extension of Program implementations still falls within the scope, magnitude, and duration of effects analyzed in the opinion, and that a one-year extension does not warrant reinitiation of consultation.

On March 30, 2026, in *Center for Biological Diversity v. Burgum*, No. 24-cv-04651 (N.D. Cal.), the U.S. District Court for the Northern District of California vacated aspects of four provisions from the 50 CFR part 402 regulations governing interagency consultation under section 7 of the Endangered Species Act and reinstated the provisions that were previously in effect. Consistent with the Court's ruling, these are the governing provisions for this consultation:

> "*Destruction or adverse modification* means a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of a listed species. Such alterations may include, but are not limited to, those that alter the physical or biological features essential to the conservation of a species or that preclude or significantly delay development of such features." (50 CFR 402.02 (2018)).
>
> "*Effects of the action* refers to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline. 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 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration." (50 CFR 402.02 (2018)).
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> 50 CFR 402.14(g)(8): "In formulating its biological opinion, any reasonable and prudent alternatives, and any reasonable and prudent measures, the Service will use the best scientific and commercial data available and will give appropriate consideration to any beneficial actions taken by the Federal agency or applicant, including any actions taken prior to the initiation of consultation." (50 CFR 402.14(g)(8) (2018)).

> 50 CFR 402.16(a): "(a) Reinitiation of consultation is required and shall be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and . . . ." (50 CFR 402.16(a) (2023)).

NMFS evaluated the Program's effects[1] on ESA-listed salmonids and critical habitat and has determined that the NOAA RC may continue to administer the Program in perpetuity without a specified timeline until incidental take limits are exceeded or other reinitiation criteria are met. Compared with a predetermined timeline, the general criteria for reinitiation of ESA consultation and the Program-specific reinitiation criteria described in the opinion and in the revised ITS (enclosed) provide more relevant limits on the Program's effects on the ESA-listed steelhead DPS's and their critical habitats as they occur in real time. The original 10-year timeline in the opinion can be replaced with an open-ended timeline based on existing reinitiation criteria that occur in 10-year increments, with the current 10-year increment beginning April 8, 2026. The annual limits for incidental take in the ITS can be removed and converted to 10-year limits, as the 2015 opinion considered a 10-year time limit. Ongoing Program administration until any of the reinitiation criteria are met in any 10-year increment will not constitute a change that would have any different effects on ESA-listed salmonids, and critical habitats than those NMFS has already considered in the opinion. Similarly, the basis for the opinion's jeopardy and adverse modification analysis would not be altered by this modification. Thus, the NOAA RC's ongoing Program administration until any of the reinitiation criteria are met in any 10-year increment is not likely to jeopardize the continued existence of ESA-listed salmonids and is not likely to destroy or adversely modify the designated critical habitat of the federally ESA-listed salmonids included above.

Based on this modification to the Program's administration, NMFS has enclosed a revised ITS. The annual limits for incidental take in the original ITS have been removed and converted to 10-year limits. The revised ITS is enclosed and replaces the original ITS enclosed in the 2015 opinion. Regarding incidental take of ESA-listed steelhead DPSs, the opinion considers 10-year program limits for the incidental take for each species, and these take limits will continue to serve as reinitiation criteria. With ongoing Program implementation, these incidental take limits and reinitiation criteria will continue to apply in 10-year increments.

The NOAA RC must substitute the revised ITS for the original ITS, as the original ITS is no longer in effect. Except for the revised ITS, no changes have been made to the 2015 opinion, and the opinion remains in effect in perpetuity until or unless reinitiation is triggered. 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 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

[1] Some of the information and analyses considered were prepared under the version of the 50 CFR part 402 regulations in effect prior to the Court's order (i.e., during the original 2015 consultation). We have reviewed the information and analyses and confirm that the content of that information and those analyses, including the identification and analyses of effects, would be the same under either version of the applicable regulations.

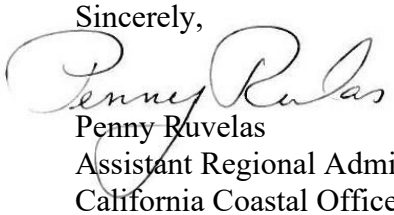
considered; (3) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence; or (4) If a new species is listed or critical habitat designated that may be affected by the identified action."

Annual reporting will support the NOAA RC's and NMFS' ongoing real-time assessment of the effects of the Program's implementation on ESA-listed salmonids and critical habitat. To maintain annual tracking of Program effects, NMFS expects that the NOAA RC will continue to provide the Annual Program Report to NMFS according to the reporting process presented in Section 1.3.5 Oversight and Administration (8, p. 17) of the 2015 opinion. At the completion of every 10-year increment, the NOAA RC and NMFS will assess the following: number of projects implemented; number of fish captured and relocated; and mortality rates of ESA-listed steelhead DPSs.

In summary, NMFS agrees with the NOAA RC's determination that reinitiation of the ESA section 7 consultation is not warranted to continue the Program for an additional year, and with this letter NMFS provides a revised ITS and notifies the NOAA RC that Program administration may continue in perpetuity without reinitiation of the ESA consultation until any of the reinitiation criteria are met in any 10-year increment. Program tracking will continue to occur through annual reporting by the NOAA RC. The current 10-year increment will include a start date of April 8, 2026, and will conclude April 1, 2036, and is expected to continue in this manner in 10-year increments in perpetuity.

If you have any questions or would like to discuss, please contact Joel Casagrande at (707) 575-6016 or joel.casagrande@noaa.gov.

Sincerely,



Penny Ruvelas
Assistant Regional Administrator
California Coastal Office

Enclosure

cc: Crystal L.M. Huerta, USACE (Crystal.L.Huerta@usace.army.mil)
Timothy Jackson, USACE (Timothy.W.Jackson@usace.army.mil)
Copy to E-File FRN 151422WCR2014CC00285

ENCLOSURE

2.9 Incidental Take Statement (Revised April 8, 2026); replaces ITS enclosed in the biological opinion issued December 23, 2015)

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 kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding, or sheltering (50 CFR 222.102). "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.

2.9.1 Amount or Extent of Take

In the biological opinion, NMFS determined that incidental take is reasonably certain to occur during the following activities:

1. Small dam removal and instream barrier modification projects, which would necessitate isolating the work area from flowing water;
2. Small dam removal projects that release a large amount of fine sediment downstream, which is expected to create inhospitable instream conditions for developing embryos;
3. Creation of side-channel/off-channel habitat features, including appurtenant structures and instream areas, which are expected to create inhospitable instream conditions; and
4. Construction and operation of new water conservation project facilities, including appurtenant structures and instream areas, which are expected to create inhospitable instream conditions.

In this context, the amount and extent of take that is anticipated to result from the proposed action in the S-CCC and SC steelhead DPSs is listed in Tables 8 and 9, respectively. This level of take was estimated from the information made available to NMFS, habitat conditions in the action area and the anticipated effects of the proposed action, and our knowledge of the ecology and behavior of steelhead, including what we know about their abundance and distribution in the action area. For the purposes of evaluating whether incidental take has been exceeded, the 10 year total amounts from Tables 8 and 9 will be used. Annual amounts are provided for context and to assist the action agency and applicant in assessing whether total anticipated amounts could be exceeded.

Most of the anticipated incidental take will occur as the result of fish capture and relocation activities for projects that require stream dewatering. Program activities are proposed to occur during the summer and fall low-flow period, when over-summering juvenile steelhead are the

predominant life-stage present in Southern and South-Central California steelhead streams. As described in Tables 8 and 9 NMFS anticipates that juvenile steelhead will be captured more frequently; however, adult steelhead could be captured within action area streams during project dewatering due to low spring recession streamflow that limited post-spawn outmigration. Steelhead may be injured or killed during capture and relocation activities, but fewer are expected to be killed based on capture and relocation efforts during other projects in Southern California streams. The mortality of fish that evade capture (uncaptured) during dewatering activities is also expected to be very low to none, as fish surveys are proposed to occur continually during the dewatering process.

The total number of estimated projects per year for the entire action area combined (including both the S-CCC steelhead DPS and the SC steelhead DPS) is 15. Although it is expected that the 15 projects will be distributed between the two DPSs, Tables 8 and 9 summarize the potential take if all 15 projects were implemented in a single DPS. The estimated take assumes that one or more instream barrier removals will occur each year. The estimated take also assumes that small dam removal would occur on average once every other year as described in Section 2.4.2. A small fraction of juvenile steelhead within each DPS are expected to be relocated each year, due to the modest number of projects expected and because not all projects are likely to require dewatering and fish relocation. The best estimates for the number of steelhead affected by Program activities, when dewatering and fish relocation occurs, are based on CDFW's FRGP monitoring reports for projects implemented in South Central and Southern California steelhead streams from 2003 to 2008. These reports show that an average of 67 juvenile steelhead were captured and relocated annually across an average of 3.3 restoration projects (SusCon 2015), suggesting roughly 20 juvenile steelhead are affected per project. If the proposed Program implements up to 15 projects per year that all require dewatering, more than 300 juvenile steelhead could potentially be relocated annually. Based on the proposed fish capture and relocation methodologies and associated minimization measures, NMFS anticipates the total number of steelhead mortalities owing to capture, relocation, and dewatering activities will not exceed 4-percent of the total number present at the project site. This mortality estimate is based on regional data including FRGP reporting and southern California capture and relocation activities associated with NMFS' Section 10(a)(1)(A) enhancement of survival permit. The differences described in Tables 8 and 9 regarding the expected number of fish captured or affected in the SCCC steelhead DPS as compared to the SCS steelhead DPS are based on NMFS' familiarity with the action area and observed juvenile steelhead rearing densities in these streams.

Table 8. Estimated annual **and 10-year total** amount and extent of incidental take anticipated to result from the Program activities throughout the SCCC steelhead DPS. Annual incidental take assumes that 15 projects are implemented in this DPS, **or 150 projects in a 10-year term**.

Source of take[2]	Steelhead life stage	Form of take	Annual number of individuals expected to be taken	**10-year total number of individuals expected to be taken**
Modification and removal of dams & instream barriers	Juvenile	Capture, injury	300	**3,000**
Modification and removal of dams & instream barriers	Juvenile	Capture, injury[3]	12	**120**
Modification and removal of dams & instream barriers	Adult	Capture	2	**20**
Operation activities	Juvenile	Capture, injury	30	**300**
Operation activities	Juvenile	Kill[4]	5	**50**
Operation activities	Adult	Capture	1	**10**
Construction activities	Juvenile	Capture, injury	330	**3,300**
Construction activities	Juvenile	Kill	13	**130**
Construction activities	Adult	Capture	1	**10**

[2] For clarification, the phrase "operation activities" refers to the post-construction operation and function of the Program projects, consistent with the proposed action, and related incidental take of threatened and endangered steelhead (e.g., steelhead stranding in constructed off-channel habitat, or pools within a water conservation project area). "Construction activities" refers to Program activities that incorporate a dewatering element, including instream habitat improvements, stream bank stabilization, creation of off-channel/side-channel habitat features, and water conservation projects.

[3] Includes individuals that will be captured and potentially injured when preparing a worksite for the use of explosives for small dam removal.

[4] Includes individuals that become stranded and die owing to a reduction in streamflow during operation of off-channel/side channel habitat features and water conservation projects.

Table 9. Estimated annual **and 10-year total** amount and extent of incidental take anticipated to result from the Program activities throughout the SC steelhead DPS. Annual incidental take assumes that 15 projects are implemented in this DPS, **or 150 projects in a 10-year term**.

Source of take	Steelhead life stage	Form of take	Annual number of individuals expected to be taken	**10-year total number of individuals expected to be taken**
Modification and removal of dams & instream barriers	Juvenile	Capture, injury	200	**2,000**
Modification and removal of dams & instream barriers	Juvenile	Capture, injury	8	**80**
Modification and removal of dams & instream barriers	Adult	Capture	1	**10**
Operation activities	Juvenile	Capture, injury	30	**300**
Operation activities	Juvenile	Kill	5	**50**
Operation activities	Adult	Capture	1	**10**
Construction activities	Juvenile	Capture, injury	250	**2,500**
Construction activities	Juvenile	Kill	10	**100**
Construction activities	Adult	Capture	1	**10**

*The same footnotes listed for Table 8 apply to Table 9.

In addition to the estimated annual amount and extent of incidental take anticipated to result from the Program activities throughout the action area described above, NMFS determined that small dam removal activities will adversely modify steelhead spawning and rearing habitat extending 100-meters downstream of dam removal sites. As discussed in Section 2.4, the resulting unmetered release of fine sediment in areas where spawning has occurred is expected to directly harm steelhead embryos buried in any redds constructed within close proximity (i.e., 100-meters) downstream of the dam removal site.

Based on regional steelhead spawning observations, NMFS assumes that no more than one steelhead redd would be affected from fine sediment fouling downstream of small dam removal projects. NMFS anticipates that fine sediment fouling would reduce egg to fry survival in one steelhead redd by up to 50 percent. This harm to steelhead embryos is expected to occur at a frequency of once every other year.

Counting the amount of eggs killed by fine sediment is not possible for several reasons: 1) digging up redds to examine each egg would likely kill more eggs because eggs are very small and relatively fragile, 2) redds may not be observable once covered by fine sediment and, therefore, could not be found easily, if at all, and 3) determining the exact cause of egg death is difficult in many circumstances. Therefore, NMFS will use the amount of dam removal projects expected per year as a surrogate for the extent of take as described in the effects section of the

preceding biological opinion. If more than 1 dam removal project every other year is authorized or implemented under the proposed action, the extent of take may be exceeded.

2.9.2 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.

2.9.3 Reasonable and Prudent Measures

"Reasonable and prudent measures" refer to those actions the Director considers necessary or appropriate to minimize the impact of the incidental take on the species (50 CFR 402.02).

NMFS believes the following reasonable and prudent measures are necessary and appropriate to minimize and monitor incidental take of SCCC and SCC steelhead.

1. Implement a steelhead rescue and relocation protocol for dewatering activities that is protective of juvenile and adult steelhead.

2. Report to NMFS all take (inclusive of steelhead-relocation activities) associated with minimizing and monitoring the Effects of the Proposed Action.

3. Develop and implement a streamflow monitoring plan to minimize effects of Program activities that result in a reduction of instream flow.

4. Minimize input of sand and smaller particles to action area drainages as a result of creating, maintaining, and (or) using access ramps and temporary access roads.

5. Submit adequate Project information for NMFS' review and agreement to ensure Program impacts are minimized within the area affected by the proposed action.

2.9.4 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 NOAA RC 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. minimum of two qualified fisheries biologists shall be on-site the day the project site is dewatered for relocation of any remaining steelhead, and to monitor the

upstream and downstream block nets. For the remainder of the instream work period requiring stream diversion, one qualified biologist shall be on-site each day the diversion is in place to check the upstream and downstream block nets at a minimum of 3 times per day (before the work activity begins each day, during construction, and after construction has ended for the day). If any fish become entangled in the nets, this shall be reported to NMFS biologist Rick Bush (562-980-3562) for the purpose of developing a plan to further minimize harm to steelhead.

B. A minimum of one qualified fishery biologist (having logged > 20 hours of electrofishing experience) and two assistants shall perform all seining, electrofishing, and fish relocation activities. There should be a minimum of two individuals netting fish during electrofishing activities to ensure maximum efficiency and removal of steelhead prior to dewatering. Steelhead should be enumerated, measured and transported to the release site as soon as possible after capture to minimize stress. This typically requires a crew of four individuals or more depending on the complexity of the project site and the distance to the relocation site(s).

C. The NOAA RC shall contact the NMFS designee immediately if one or more steelhead are found dead, injured or stranded at any Program activity project site, or maintained facility. Dead individuals shall be measured to the nearest mm (FL), georeferenced, photographed, sealed in a labeled freezer ziplock bag, and frozen until the carcass can be transferred to NMFS. The purposes of the contact shall be to review the activities resulting in take, to determine if additional protective measures are required, and to discuss additional handling procedures for dead steelhead.

D. In the event pre-rescue information collected by the NOAA RC indicates that a pending fish relocation is likely to exceed the level of take for an activity described in Tables 8 and 9, NMFS biologist Rick Bush must be contacted by phone immediately at 562-980-3562 prior to the capture of any fish. The purpose of the contact is to review the anticipated capture and relocation effort and to determine the proper course of action.

2. The following terms and conditions implement reasonable and prudent measure 2:

A. Notify NMFS two weeks prior to capture and relocation of steelhead to provide NMFS staff an opportunity to provide watershed specific guidance and/or attend the relocation (call Rick Bush at (562) 980-3562 or via email at Rick.Bush@noaa.gov).

B. The relocation data that will be collected as required by the NOAA RC proposed protection measures shall be recorded on NMFS standardized relocation data sheets (Appendix E), along with information about creek discharge, water temperature, and electrofishing settings used, and then entered and saved into an

electronic spreadsheet (Microsoft Office Excel). The electronic spreadsheet and report describing all relocation activities and protection measures implemented will be transmitted to a NMFS designated electronic address of NMFS staff in the Long Beach office no later than March 15 of each year.

C. In addition to the NOAA RC rescue and relocation activity reporting described in term and condition 2.B, the NOAA RC/Corps shall submit an annual comprehensive summary of all take (including relocated individuals) associated with Program activities described in this biological opinion. The take summary shall be submitted to NMFS (Rick Bush, 501 West Ocean Boulevard, Suite 4200, Long Beach, California 90802) no later than March 15 of each year and shall include the following information:

   i. A detailed account of the number of steelhead killed, injured and captured during implementation of each Program activity (e.g., creation of side-channel/off-channel habitat, maintenance of water conservation projects).

   ii. An explanation of the likely cause of take.

   iii. A discussion of the potential operational changes that may decrease the likelihood of future take owing to Program activities.

CI. The NOAA RC shall take additional conservation measures when using explosives for blasting and removal of small dams to protect steelhead in the vicinity of the project area. These conservation measures shall include:

   i. The applicant must conduct an analysis of the peak overpressures that would occur as a result of the proposed blasting operations along with an analysis of the setback distance required to achieve a peak overpressure of 10 psi.

   ii. The applicant must install a fish exclusion zone upstream and downstream of the dam as determined appropriate to minimize or avoid overpressure effects.

   iii. The applicant must conduct a stream reconnaissance survey with two fisheries biologists 500 feet upstream and downstream of the dam to collect information on the sub-lethal effects of the blast, and to recover any injured or dead steelhead that did not drift into the exclusionary fence/nets. The survey should occur no more than 30 minutes following the blast, or as soon as the project area is deemed safe to enter.

3. The following terms and conditions implement reasonable and prudent measure 3:
   A. The NOAA RC shall collaborate with NMFS to develop and implement monitoring plans that are appropriate for determining post-project hydrological conditions resulting from Program activities that reduce instream flow (i.e., water

depth, pool availability or habitat connectivity). This collaboration is necessary to ensure that Projects are designed according to the life history and habitat requirements of steelhead and maintenance of appropriate fish passage at project locations. This monitoring shall occur for Program activities including construction of side-channel/off-channel habitat features and water conservation projects. Prior to implementing the annual monitoring plan, the NOAA RC/Corps shall submit the draft plan to NMFS (Rick Bush, 501 West Ocean Boulevard, Suite 4200, Long Beach, California 90802) annually no later than April 1 for review and approval. The monitoring plans shall achieve the following:

i. Streamflow monitoring plans developed for water conservation projects shall include sufficient information to demonstrate that the Program activity will not negatively affect steelhead habitat. The NOAA RC/Corps shall collaborate with project applicants to provide the following information for the site of diversion, including extent, magnitude, duration, frequency and timing of water withdrawals at each individual project site. Detailed pumping records, diversion flow rates, and continuous water level measurements upstream and downstream of the point of diversion are required data anytime streamflow is diverted from a stream to provide water for a water conservation project. Supplemental Statement of Water Diversion and Use Forms submitted to the State Water Resources Control Board that estimate water use are not sufficient to meet this monitoring requirement.

ii. The project specific streamflow monitoring plan for water conservation projects and sidechannel/off-channel habitat projects shall clearly describe the proposed methodology for verifying that the pumping activity does not dewater greater than 10% of channel, as described in the proposed action. The project applicant must quantify the rate of diversion using “Best available technologies”, which requires the use of technologies at the highest technically practical level, using flow totaling devices, and if necessary, data loggers and telemetry (per California Water Code Section 5100).

iii. The streamflow monitoring plan shall clearly identify the point of diversion and the point of compliance for term and condition 3.A.ii above, using a map drawn to scale and provide GPS coordinates. If the point of compliance is not the point of diversion, adequate justification must be provided demonstrating that monitoring at the point of diversion is infeasible.

iv. Water conservation projects and side-channel/off-channel habitat projects should not be operated in areas where spawning may occur. Should spawning occur within 10 feet of a portion of a diversion/pump intake, then use of those diversions within 10 feet of any redd should be discontinued for 90 days, or as directed by NMFS.

v. Annual streamflow monitoring plan results will be transmitted to a NMFS designated electronic address of NMFS staff in the Long Beach office no later than April 1 of each year.

B. The NOAA RC shall collaborate with NMFS as early as possible during the design phase (but not less than 90 days before construction) for projects with the potential to modify instream hydrologic conditions. These Program activities include small dam removal, instream barrier modification, creation of off-channel/ side-channel habitats, and water conservation projects. Depending on the complexity of the project and/or habitat where it will be installed, NMFS will determine whether it will be necessary for the NOAA RC/Corps to obtain a detailed pre and/or post project topographical survey of the stream reach to be affected by the installation of a particular Program activity. If site conditions indicate there is a moderate risk of avulsion, a hydraulic analysis of avulsion should also be conducted according to standard methods (Saldi Caromile 2004). The survey shall possess sufficient detail to quantify pool depths, head cuts, hydraulic drops, rock weir inverts, and any other information NMFS believes is necessary to further an understanding of the implications of the Program activities listed above for threatened and endangered steelhead and critical habitat for this species. The NOAA RC shall submit the results of the survey to NMFS (at 501 West Ocean Boulevard, Suite 4200, Long Beach, California, 90802).

i. After installation of any off-channel/side-channel projects, the NOAA RC or project applicant shall annually monitor the project site (particularly after storm events) at a frequency agreeable to NMFS for the purpose of ensuring NMFS fish-passage guidelines are maintained at the inlet and outlet structures over time and newly created habitats are not stranding steelhead. The NOAA RC shall include the results of this monitoring activity in the streamflow monitoring plan required in 3B above.

4. The following terms and conditions implement reasonable and prudent measure 4:

A. The NOAA RC shall implement the following measures to minimize the contribution of sand and smaller particles from access ramps to creeks within the action area:

i. Stabilize exposed soil areas to prevent soil from eroding during rain events. This is particularly important on steep slopes;

ii. Use native plant species to revegetate ramps following use, preferably with a mulch or binder that will hold the soils in place while the vegetation is establishing;

iii. If vegetation cannot be established for a particular ramp following use, apply temporary erosion-control mats or blankets, straw, or gravel as appropriate; and,

iv. For ramps where sediment is already eroded and mobilized, temporary controls shall be installed. These may include sediment-control fences, fabric-covered triangular dikes, gravel-filled burlap bags, biobags, or hay bales staked in place.

5. The following terms and conditions implement reasonable and prudent measure 5:

A. The NOAA RC shall submit an annual report summarizing all Program activities described in this biological opinion that were implemented during the previous year. The report shall contain the post-construction implementation monitoring reporting described in Section 1.35. The annual report shall be submitted to NMFS (Rick Bush, 501 West Ocean Boulevard, Suite 4200, Long Beach, California 90802) no later than March 15 of each year.

B. For all Program activities involving instream barrier modification for fish passage improvement (including small dam removal), the NOAA RC/Corps shall submit steelhead post-implementation survey results documenting the effectiveness of establishing fish passage upstream of the project site using the methods referenced in the biological assessment (SusCon 2015, page 17). These monitoring results shall be submitted to NMFS (Rick Bush, 501 West Ocean Boulevard, Suite 4200, Long Beach, California 90802) no later than August 15 of each year.

C. The determination as to whether a Program activity is a "Complex Project" shall be a joint decision made during early consultation between the NOAA RC/Corps and NMFS. The factors that will be assessed in determining project complexity shall include 1) the height of the dam, 2) the gradation and amount of sediment stored upstream of the dam, 3) local hydrology, 4) channel morphology, 5) sediment transport processes, 6) hydraulic conditions in the stream, and 7) any anthropogenic factors present.

i. Program activities classified as Complex projects will require the applicant to retain a professional engineer and/or geomorphologist to draw up design plans (plan, profile, details, and cross sections) and conduct a scour analysis for NMFS' review and concurrence. Upon receipt of these engineering design plans, NMFS will review and provide comments to the NOAA RC/Corps within 45 days to provide specific recommendations associated with these more complex project types to protect steelhead and their habitat.

ii. Complex project technical assistance shall consist of one or more meetings between NMFS or CDFW engineers, NOAA RC/Corps and project

applicants that include a site visit and concept development meeting meetings to discuss project objectives and identify measures to minimize effects to steelhead and their habitat. Project applicants must submit 30%, 60% and 90% design drawings and a detailed project narrative for complex projects. NMFS will review the project plans and provide comments within 30 days. If changes to the project design are identified at any of these design phases that NMFS determines may affect steelhead in a manner that is not offset by the proposed protection measures, a meeting will be scheduled between all parties and NMFS will require 30 days from the date of the meeting to review and provide written comments to the NOAA RC/Corps on how to minimize project impacts.

D. If the minimal data requirements described in Section 1.3.4 provided by the NOAA/Corps indicate a proposed small dam removal project site contains greater than 50-percent impounded fine sediment (i.e., sand and smaller particles), and its unregulated release may cause chronic (i.e., extending beyond the first year post-project) impacts to steelhead and downstream habitats that were not identified in the project description, the Project applicant will be required to develop a Sediment Management Plan. If NMFS determines a Sediment Management Plan is warranted, the applicant will be required to mechanically remove all of the fines within the bankfull channel (i.e., 2-year flood event), or clearly demonstrate using both geomorphic and sediment transport analyses that the proposed project is sufficient to remove the sediment using natural stream processes in 1-2 storm events based on the hydrological record of that stream, or nearest gaged drainage of comparable size.

E. All Program activities that possess a fish passage element shall be constructed and monitored in accordance with NMFS' most recent fish passage guidelines.