

FINDING OF NO SIGNIFICANT IMPACT

Supplemental Environmental Assessment for McCloud Remote Site Incubator Project and the Remote Captive Broodstock Project

I. Purpose of Finding of No Significant Impact (FONSI):

The National Environmental Policy Act (NEPA) requires the preparation of an Environmental Impact Statement (EIS) for any proposal for a major federal action significantly affecting the quality of the human environment. 42 U.S.C. § 4332(C). The Council on Environmental Quality (CEQ) Regulations direct agencies to prepare a Finding of No Significant Impact (FONSI) when an action not otherwise excluded will not have a significant impact on the human environment. 40 CFR §§ 1500.4(b) & 1500.5(b). To evaluate whether a significant impact on the human environment is likely, the CEQ regulations direct agencies to analyze the potentially affected environment and the degree of the effects of the proposed action. 40 CFR § 1501.3(b). In doing so, agencies should consider the geographic extent of the affected area (i.e., national, regional or local), the resources located in the affected area (40 CFR § 1501.3(b)(1)), and whether the project is considered minor or small-scale (NAO 216-6A CM, Appendix A-2). In considering the degree of effect on these resources, agencies should examine both short- and long-term effects (40 CFR § 1501.3(b)(2)(i); NAO 216-6A CM Appendix A-2 - A-3), and the magnitude of the effect (e.g., negligible, minor, moderate, major). CEQ identifies specific criteria for consideration. 40 CFR § 1501.3(b)(ii)-(iv). Each criterion is discussed below with respect to the proposed action and considered individually as well as in combination with the others.

In preparing this FONSI, we reviewed the Supplemental Environmental Assessment (Supplemental EA) for the McCloud Remote Site Incubator (RSI) Project and the Remote Captive Broodstock Project, which evaluates the affected area, the scale and geographic extent of the proposed action, and the degree of effects on those resources (including the duration of impact, and whether the impacts were adverse and/or beneficial and their magnitude). The Supplemental EA is hereby incorporated by reference. 40 CFR § 1501.6(b).

II. Approach to Analysis:

A. We have determined that the proposed action is small-scale and minor, and therefore, the scale of the project is not considered to meaningfully contribute to a significant impact.

B. The proposed action will not cause an effect to a specific resource, and we did not identify any impacts that would be determined to be other than negligible, minor or moderate.

C. The proposed action is not connected to other actions that have caused or may cause effects to resources in the affected area. As such, there is no potential for the effects of the proposed action to add to the effects of other projects such that the effects taken together could be significant. The proposed action will improve the scientific basis for implementing future salmon recovery actions proposed under species recovery plans, but it does not establish a precedent for future actions with significant effects and it does not represent a decision about future actions. Future actions related to winter-run Chinook salmon reintroduction will be developed and reviewed separately and under

their own merit. No decision in principle about a future action would occur from implementation of the proposed action.

III. Geographic Extent and Scale of the Proposed Action:

The proposed action will provide an additional winter-run Chinook salmon egg incubation and rearing location in the species' historical range along the McCloud River in Shasta County using an RSI system. The entirety of the action area includes the footprint of a federal fish hatchery, reaches of both the Sacramento and McCloud Rivers, and the U.C. Davis Center for Aquatic Biology and Aquaculture, in Davis, California. Therefore we have determined the geographic extent of the action is local and that the affected environment is small in scale.

IV. Degree of Effect:

A. The potential for the proposed action to threaten a violation of Federal, state, or local law or requirements imposed for environmental protection.

The proposed action would not threaten a violation of federal, state, tribal, and local law or requirements to protect the environment because it is based on current environmental law (Endangered Species Act (ESA)), and regulations and supports science of winter-run Chinook salmon recovery planning. Specifically, the proposed action will amend an existing ESA section 10(a)(1)(A) permit, and through its review of the project components and Supplemental EA, NMFS is ensuring the action is carried out consistent with the requirements of NEPA and the ESA.

B. The degree to which the proposed action is expected to affect public health or safety.

The proposed action would have no effect on public health or safety. The proposed action would not have a substantial adverse impact on public health or safety because it would not alter any current laws or regulations specific to public health and safety. No activities related to public health or safety would occur under the proposed action. Additionally, the Livingston Stone National Fish Hatchery (LSNFH), and the U.C. Davis Center for Aquatic Biology and Aquaculture follow all state and federal laws and regulations in the use and disposal of chemicals and biological agents used in hatchery operations. Partners in the study will follow state and federal safety standards for operating vehicles and equipment that will be used in the study. Agency and study partners will follow applicable health and safety protocols and procedures during the execution of all field activities relevant to the proposed action.

C. The degree to which the proposed action is expected to affect a sensitive biological resource, including:

a. Federal threatened or endangered species and critical habitat;

An ESA consultation for the issuance of a section 10(a)(1)(A) permit covering activities proposed in the submitted Hatchery and Genetic Management Plans (HGMPs) was completed by NMFS on species under our jurisdiction and concluded that the effects of the HGMP actions (e.g., broodstock collection, rearing and release of juvenile winter-run Chinook salmon, and associated research, monitoring, and evaluation activities) would not jeopardize the continued existence of listed Sacramento River winter-run Chinook salmon, Central Valley spring-run Chinook

salmon, or California Central Valley steelhead, nor would it destroy or adversely modify their designated critical habitat (NMFS 2017b). This ESA consultation also concluded that the effects of the HGMP are not likely to adversely affect southern distinct population segment of green sturgeon or Southern Resident Killer Whales, nor would it destroy or adversely modify their designated critical habitats. The proposed action will improve our knowledge for advancing future recovery actions for winter-run Chinook salmon, and the scientific information gained from the study is expected to support the likelihood of long-term survival and recovery of the Sacramento River winter-run Chinook salmon evolutionarily significant units. Furthermore, the establishment of a second captive broodstock population will provide a necessary buffer for the species in the case of a catastrophic event at the existing facility, such as power loss, pump failure, or wildfire, combined with no natural production, which could lead to a complete loss of the 2022 year-class of winter-run Chinook salmon. Therefore, we conclude that the proposed action would have a beneficial effect on winter-run Chinook salmon.

- b. *stocks of marine mammals as defined in the Marine Mammal Protection Act;***
Marine mammal species overlap in time and space with a portion of the life cycle of winter-run Chinook salmon, but are not expected to be adversely affected by the proposed action. Winter-run Chinook salmon that enter the habitat of marine mammals would increase their forage base of salmon, since salmon is an important principal prey item for marine mammal species.
- c. *essential fish habitat identified under the Magnuson–Stevens Fishery Conservation and Management Act;***
The proposed action does not include any new construction and would not adversely affect essential fish habitat identified under the Magnuson–Stevens Fishery Conservation and Management Act, including freshwater, ocean and coastal habitats.
- d. *bird species protected under the Migratory Bird Treaty Act;***
The proposed action is not expected to interfere with the feeding, nesting or migratory birds in any manner and therefore would not significantly affect bird species protected under the Migratory Bird Treaty Act.
- e. *national marine sanctuaries or monuments;***
The proposed action would not have any effect on national marine sanctuaries or monuments.
- f. *vulnerable marine or coastal ecosystems, including, but not limited to, shallow or deep coral ecosystems;***
The proposed action would not adversely affect vulnerable marine or coastal ecosystems, including, but not limited to, shallow or deep coral ecosystems.
- g. *biodiversity or ecosystem functioning (e.g., benthic productivity, predator-prey relationships, etc.)***
The proposed action is not expected to significantly affect biodiversity or functioning ecosystems within the affected area. Although winter-run Chinook salmon produced at LSNFH and incubated in the RSI would interact with other species through competition and predator/prey interactions once Chinook salmon fry enter the McCloud River, the competition is expected to be minor because Chinook salmon fry rear along channel margins and the margins of backwaters and these habitats are not heavily occupied by larger trout. Also, the number of hatchery-origin winter-run Chinook salmon produced would be relatively small (likely to be less than 50,000 fry in 2022) and not likely to affect the balance of existing predator or prey

relationships. We do not expect the remote captive broodstock program will have any adverse effects on biodiversity or functioning ecosystems. The progeny of the captive broodstock are expected to have a beneficial effect on biodiversity and ecosystem function.

Therefore we do not expect the proposed action to have an adverse effect on biodiversity or ecosystem functioning, but that it could have a slightly beneficial effect on such resources.

D. The degree to which the proposed action is reasonably expected to affect a cultural resource: properties listed or eligible for listing on the National Register of Historic Places; archeological resources (including underwater resources); and resources important to traditional cultural and religious tribal practice.

The proposed action could potentially have adverse effects on cultural resources or objects listed or eligible for listing in the National Register of Historic Places, and could cause loss or destruction of significant scientific, cultural, or historical resources. The Winnemem Wintu Tribe is a State of California recognized Indian tribe with ancestral lands in the McCloud River watershed. The Redding Rancheria is a federally recognized Tribe with Pit River, Wintu and Yana people with similar interests in salmon in the action area. The historical salmon runs in the McCloud River were an important food source and an important part of the Winnemem Wintu's tribal tradition and identity. As a measure to avoid the risk of adverse effects on cultural resources, representatives of the Tribe are anticipated to participate in onsite informational and cultural consultation meetings in order to identify areas of cultural significance and sensitivity to ensure that planned actions address Tribal concerns and cultural needs. The proposed action also would provide an opportunity for cultural, ceremonial, and religious opportunities that are currently absent to the Winnemem Wintu. Therefore, we expect a negligible potential for the proposed action to have an adverse effect on cultural sites and the risk will be reduced or avoided through close coordination with the Winnemem Wintu. Additionally, the proposed action will have a beneficial effect on cultural values by providing religious and ceremonial opportunities.

We do not expect that Remote Captive Broodstock Project to have any effects on cultural resources since the program will be stationed at the U.C. Davis Center for Aquatic Biology and Aquaculture, in Davis, California.

E. The degree to which the proposed action has the potential to have a disproportionately high and adverse effect on the health or the environment of minority or low-income communities, compared to the impacts on other communities (EO 12898).

The proposed action would have no adverse effect on the health or the environment of human communities, including minority or low-income communities. We are not aware of any minority or low-income communities in the action area of the McCloud River or at the U.C. Davis Center for Aquatic Biology and Aquaculture, in Davis, California, so we do not believe there would be any adverse or beneficial impacts of the proposed action to such resources.

F. The degree to which the proposed action is likely to result in effects that contribute to the introduction, continued existence, or spread of noxious weeds or nonnative invasive

species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of the species.

The proposed action does not involve the introduction, removal, or movement of any nonindigenous species into or out of the Action Area. The species involved in the proposed study are native to the study region (Sacramento River winter-run Chinook salmon), and common handling and movement methods will be used where necessary, which are not known to introduce or lead to the spread of nonindigenous species. The action would not introduce non-native species or expand their current range.

G. The potential for the proposed action to cause an effect to any other physical or biological resources where the impact is considered substantial in magnitude (e.g., irreversible loss of coastal resources such as marshland or seagrass) or over which there is substantial uncertainty or scientific disagreement.

The proposed action would not cause an adverse effect to any other physical or biological resources nor is there substantial uncertainty or scientific disagreement about potential impacts. Although there are some uncertainties about winter-run Chinook salmon juvenile survival, growth, and habitat use within the action area, the study is intended to address these uncertainties for the purpose of advancing salmon recovery actions. The risks are known, understood, and the proposed HGMPs include explicit steps to monitor and evaluate these uncertainties in a manner that allows timely adjustments to minimize or avoid adverse impacts. The proposed action is similar to other RSI studies in California and the procedures and effects are well known. State and federal fisheries biologists who have experience working on RSI systems in California will provide technical and field support to the proposed action.

There is also no known or substantial disagreement about the hatchery practices that support the proposed action. There are often scientific disagreements about the use of fish hatcheries to mitigate for loss of habitat, however the LSNFH is a conservation hatchery and not a mitigation hatchery. Operation of the LSNFH is guided by the best available science and there are no known areas of substantial scientific agreement related to the operation of LSNFH. Additionally, the effects of the proposed action on winter-run Chinook salmon are not associated with substantial scientific controversy because the proposed action is consistent with the current scientific literature and hatchery management and uses established techniques for establishing and managing captive broodstock populations, transporting eggs, deploying and operating study equipment, and in transporting and releasing fish.

V. Other Actions Including Connected Actions:

The proposed action would not add to the effects of other actions which have occurred, are occurring, or are reasonably certain to occur. The Supplemental EA determined that the short- and long-term effects, both beneficial and detrimental, of the proposed action on the affected resources, in combination with effects from past, present, and foreseeable future actions on the same affected resources would not be expected to be significant. This action is not expected to significantly add to cumulative impacts that are described in the Final EA and apply to the Supplemental EA.

VI. Mitigation and monitoring

The proposed action involves coordinating with the Winnemem Wintu Tribe to ensure there will be no adverse impacts to cultural resources. The Winnemem Wintu Tribe is a state of California recognized Indian tribe with ancestral lands in the McCloud River watershed. The Winnemem Wintu consider many locations on the McCloud River to be sacred. Representatives of the Tribe are anticipated to participate in onsite informational and cultural consultation meetings in order to identify areas of cultural significance and sensitivity to ensure that planned actions address tribal concerns and cultural needs.

The proposed action also includes measures for facilities at the U.C. Davis Center for Aquatic Biology and Aquaculture. The U.S. Fish and Wildlife Service is requiring that the facility will be:

- Proficient at rearing multiple small batches of salmon
- Able to periodically consolidate batches of fish
- Able to facilitate marking and tagging of fish, either by on-site staff or by staff from other entities
- Capable, if necessary, of holding and rearing adult fish in a manner consistent with the practices of LSNFH (separated by sex, differential feeding regimes for males and females, differential photo periods for males and females, etc.)
- Capable of starting operations no later than June 22, 2022.

DETERMINATION

The CEQ NEPA regulations, 40 CFR § 1501.6, direct an agency to prepare a FONSI when the agency, based on the EA for the proposed action, determines not to prepare an EIS because the action will not have significant effects. In view of the information presented in this document and the analysis contained in the supporting Supplemental EA prepared for the McCloud Remote Site Incubator Project and the Remote Captive Broodstock Project, and the details of the proposed action summarized in the amended LSNFH 10(a)(1)(A) Permit, it is hereby determined that the McCloud Remote Site Incubator Project and the Remote Captive Broodstock Project will not significantly impact the quality of the human environment. The Supplemental Environmental Assessment for McCloud Remote Site Incubator Project and the Remote Captive Broodstock Project is hereby incorporated by reference. In addition, all beneficial and adverse impacts of the proposed action as well as mitigation measures have been evaluated to reach the conclusion of no significant impacts. Accordingly, preparation of an EIS for this action is not necessary.



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Date