

FINDING OF NO SIGNIFICANT IMPACT

NOAA Fisheries' Determination that Operation, Maintenance, and Monitoring and Evaluation of Five Elwha River Salmon and Steelhead Hatchery Programs are Consistent with Provisions under Limit 6 of the Endangered Species Act Section 4(d) Special Rule for Listed Puget Sound Chinook Salmon and Puget Sound Steelhead.

Olympic National Park
Clallam and Jefferson Counties, Washington

March 2013

The National Park Service (NPS) issues this Finding of No Significant Impact (FONSI) for direct funding and funding recommendations of Elwha River hatchery programs, as described in five Hatchery and Genetic Management Plans (HGMPs) generated by the Lower Elwha Klallam Tribe (Tribe) and Washington Department of Fish and Wildlife (WDFW), approved by National Marine Fisheries Services (NMFS). NPS previously completed three Environmental Impact Statements (EISs) analyzing the impacts of the Elwha River Restoration Project, and discussed the use of hatcheries to preserve and sustain all native anadromous fisheries.¹ The Elwha River Restoration Project is authorized by the Elwha River Ecosystem and Fisheries Restoration Act of 1992, which authorizes and directs the Secretary of the Interior to restore the Elwha River Ecosystem and native anadromous fisheries. This decision pertains to activities to be completed by the NPS; other related project activities to be undertaken by partner agencies are addressed in separate decisions.

BACKGROUND

The National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS), in consultation with the National Park Service (NPS)/Olympic National Park (ONP or Park), and Bureau of Indian Affairs (BIA), Northwest Region, prepared an Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA) to consider environmental impacts resulting from NMFS' approval of five Hatchery and Genetic Management Plans (HGMPs²) and a Tribal Harvest Plan submitted by the Lower Elwha Klallam Tribe (Tribe) and Washington Department of Fish and Wildlife (WDFW)

¹ In the 1995 Elwha River Ecosystem Restoration EIS, NPS analyzed alternatives to restoring the Elwha River, including removal of only one dam, removal of both dams, and installation of fish passage. In the 1996 Elwha River Ecosystem Restoration Implementation EIS, NPS analyzed the impacts of its selected alternative, dam removal, including sediment management and the use of hatcheries to avert the risk of fish mortality and extirpation. In the 2005 Elwha River Ecosystem Restoration Implementation Supplemental EIS, NPS analyzed more specifically, the effects of dam removal and release of millions of cubic yards of sediment and employing hatcheries to preserve and sustain all native anadromous fish stocks in the river. Further, even before the first EIS was generated, NPS identified preserving and restoring fish stocks in the Elwha River through hatcheries. In the 1994 Elwha Report, commissioned by Congress by the Elwha Act.

² HGMPs are designed to provide critical direction to hatchery operations and overall fisheries management.

pursuant to limit 6 of the Endangered Species Act (ESA) 4(d) Rule, 50 CFR 223.203(b)(6) (July 10, 2000; 65 FR 42422, as amended June 28, 2012, 70 FR 37160).³

Under ESA § 4(d), NMFS issues regulations as it “deems necessary and advisable to provide for the conservation of such [threatened] species.” 16 U.S.C. § 1533(d). NMFS or U.S. Fish and Wildlife Service (FWS) may extend all or some of the protections afforded endangered species under ESA § 9 to threatened species by regulation, often referred to as “4(d) Rules.” Puget Sound Chinook, steelhead, and bull trout are listed as threatened and are generally protected against take under 4(d) Rules. 50 C.F.R. § 223.203(a); 50 C.F.R. § 17.44(w). However, NMFS has limited the reach of this take prohibition under certain circumstances. See 50 C.F.R. § 223.203(b).

One of these limitations, referred to as limit 6, exempts “actions undertaken in compliance with a resource management plan developed jointly by the States of Washington, Oregon and/or Idaho and the Tribes ... within the continuing jurisdiction of *United States v. Washington* or *United States v. Oregon*.” 50 C.F.R. § 223.203 (b)(6). Limit 6 provides that the Rule’s take prohibitions “do not apply to actions undertaken in compliance with a resource management plan developed jointly by the State[] of Washington . . . and the Tribes” provided that certain conditions are satisfied. 50 C.F.R. § 223.203(b)(6). The primary condition is “that implementing and enforcing the joint tribal/state plan will not appreciably reduce the likelihood of survival and recovery of affected threatened ESUs [Evolutionary Significant Units].” *Id.* § 223.203(b)(6)(i).

In August 2012, the Tribe and WDFW submitted five HGMPs for jointly operated hatchery programs in the Elwha River Basin, pursuant to limit 6 of the 4(d) Rule for the listed Puget Sound Chinook salmon evolutionarily significant unit (ESU) and listed Puget Sound steelhead distinct population segment (DPS).

Two of the hatchery programs release ESA-listed Chinook salmon and steelhead, and three of the hatchery programs release non-ESA listed coho, fall chum, and pink salmon into the Elwha River watershed. All of the hatchery programs raise fish native to the Elwha River Basin.

NMFS completed a Biological Opinion considering the impacts of the hatchery programs to ESA-listed (threatened) Chinook and steelhead.⁴ It found that approval of the HGMPs is not likely to jeopardize the continued existence of Puget Sound Chinook salmon or steelhead, or result in the destruction or adverse modification of their critical habitat, where designated.

³ The HGMPs were approved on December 10, 2012. See footnote 4, *infra*. Approval of the tribal harvest plan is pending.

⁴ National Marine Fisheries Service, *Endangered Species Act (ESA) Section 7 Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat (EFH) Consultation*, NMFS Consultation Number NWR-2012-9426 (December 10, 2012) (hereafter, “December 10th BiOp”).

FWS completed a Biological Opinion considering the impacts to ESA-listed (threatened) bull trout.⁵ It concluded that the proposed action is not likely to jeopardize the continued existence of bull trout or destroy or adversely modify designated critical habitat.

NMFS evaluated the five HGMPs in a Draft and Final Environmental Assessment (EA). The Final EA is titled *Environmental Assessment to Analyze Impacts of NOAA's National Marine Fisheries Service Determination that Five Hatchery Programs for Elwha River Salmon and Steelhead as Described in Joint State-Tribal Hatchery and Genetic Management Plans and one Tribal Harvest Plan Satisfy the Endangered Species Act Section 4(d) Rule* (December 2012) (the "Final EA").

The Proposed Action under NMFS' EA is to make a determination that the submitted HGMPs meet the requirements of the 4(d) Rule, and the Elwha River hatchery programs would be implemented as described in the five HGMPs until the Elwha River and its anadromous salmonid populations reach the local adaptation phase of recovery. NMFS's determination would apply for the duration of the preservation and recolonization phases of fish restoration in the Elwha River Basin, as defined in the HGMPs. These phases would encompass the periods during dam removal of the two Elwha River dams and for a period following dam removal, as river habitat and the productivity of salmon and steelhead populations recover from dam removal effects. Parameters marking the local adaptation phase and natural productivity milestones would likely be achieved at different times for the different species, with the result that hatchery programs might be terminated at different times.

Because NPS periodically funds or makes funding recommendations for these same hatchery programs, NPS hereby adopts the analysis of the hatchery programs' anticipated effects on the quality of the human environment described in the Final EA released by NMFS. Additionally, NPS concludes that any impacts from NPS's funding that would support hatchery operations consistent with the HGMPs are within the range of the impacts already analyzed within the Final EA and will have no significant impact on the quality of the human environment.

PURPOSE AND NEED

NPS accepts the Purpose and Need articulated in NMFS's Final EA. The needs for each of the parties were articulated by NMFS in the Purpose and Need. NMFS's need for the Proposed Action was to ensure the HGMPs complied with the ESA, and to further the Tribe's treaty rights. NPS agrees that the Proposed Action must be found to comply with the ESA and that the Proposed Action is important in discharging the Federal Government's trust responsibility to honor tribal treaty rights. The Tribe and WDFW presented several reasons for needing the Proposed Action. Most applicable to NPS's need for the Proposed Action is to preserve and assist with the recolonization of all native salmon and steelhead populations in the Elwha River Basin during and after dam removal.

⁵ U.S. Fish and Wildlife Service, *Biological Opinion—Determination that Operation, Maintenance, and Monitoring and Evaluation of Five Elwha River Salmon and Steelhead Hatchery Programs are Consistent with Provisions under Limit 6 of the ESA Section 4(d) Special Rule for Listed Puget Sound Chinook Salmon and Puget Sound Steelhead*, USFWS Reference Number: OIEFW00-2013-F-0060 (hereafter, "December 3rd BiOp").

NPS has the additional Purpose and Need of possibly providing limited future funding directly to others, or recommending that others (such as the National Park Foundation (“NPF”) fund third parties, to help support hatchery programs in the Elwha River that assist with preserving fish stocks within and recolonization of the Elwha River during and after NPS’s removal of the two dams (i.e., the Elwha River Restoration Project). Any such funding actions would be in support of the hatchery operations analyzed in NMFS’s EA.

NPS has authority to fund or recommend funding under the Elwha River Ecosystem and Fisheries Restoration Act of 1992 (“Elwha Act”), as delegated by Secretarial Order No. 3212 (amended March 1, 2010), to fully restore the Elwha River ecosystem and native anadromous fisheries. NPS has led the Elwha River Restoration Project and effort since 1992, when the Elwha Act was passed. The use of hatcheries has been identified by NPS as a key component in preserving all native anadromous fish stocks in the Elwha River, including salmon and steelhead, from the adverse impacts of sedimentation and dam removal.

In 1995, NPS completed an EIS evaluating alternatives for restoring the Elwha River by wholly or partially removing the dams, or modifying them to incorporate fish passage capabilities (the Elwha River Ecosystem Restoration EIS). In 1996, NPS completed the Elwha River Ecosystem Restoration Implementation EIS, considering alternatives for dam removal and impacts from sedimentation, including the use of hatcheries to preserve all native anadromous fish stocks from the adverse impacts of dam removal. In 2005, NPS generated a Supplemental EIS, examining more closely proposed water treatment options and mitigation measures, including relocating the Tribe’s existing hatchery to safer, higher ground, and the Morse Creek Facility to protect Elwha Chinook during dam removal.

Hatcheries have been identified as an integral component to implementing the Elwha River Restoration Project and fulfilling the core of the Elwha Act. NPS’s adoption of NMFS’s EA is appropriate, because that document analyzes in greater detail the impacts of hatchery operations on the environment, particularly impacts to native anadromous fisheries, than the EISs NPS previously completed.

NPS SELECTED ALTERNATIVE—ALTERNATIVE 2 (PROPOSED ACTION)

NPS adopts NMFS’s analysis of Alternative 2 (the Proposed Action) and selects it as NPS’s alternative with the slight modification that NPS may provide or recommend funding for some of the activities identified in the HGMPs approved by NMFS under Alternative 2. However, the effects of NPS’s funding activities are encompassed within the effects already analyzed by NMFS under Alternative 2, and do not result in additional or cumulative impacts. Therefore, NPS finds that any future funding would not have a significant impact on the quality of the human environment.

Historically, the NPS has provided funding in support of several components of the Elwha River hatchery programs, including construction and operations of the Morse Creek facility and acclimation ponds,

recommendations to the National Park Foundation for funding Elwha River Rearing Channel⁶, construction of the Lower Elwha Hatchery as mitigation related to dam removal, and certain activities at the Manchester Research Station to conduct a gene rescue program for three complete brood cycles for pink salmon.

In the future, NPS may directly fund or recommend that other entities fund the Elwha River hatchery programs, consistent with the HGMPs. Such funding and recommendations will be subject to further consideration by NPS decisionmakers, but examples of potential future support could include:

- NPS may continue to fund WDFW for the Morse Creek facility through the sediment release impact period following dam removal. At this time, NPS forecasts that it may need to fund through 2019. However, this date could change depending on when the sediment impact period is over.
- NPS will likely continue to recommend that NPF fund WDFW for the Elwha River Rearing Channel during the preservation and recolonization phases.
- Since January 2011, NPS has been in discussions with the Tribe over possible future operations and maintenance (O&M) funding for the Tribe's hatchery. While no decision has been made, NPS may enter into a future negotiated final settlement and release agreement to provide limited O&M funding for the Tribe's hatchery.
- NPS may fund NMFS at the Manchester Research Station after calendar year 2013, after evaluation of the 2012 and 2013 results.

Subsequent to this FONSI, no further NEPA decision documents will be needed for future funding actions or funding recommendations.

NMFS has already assessed the risks and benefits to listed salmon, steelhead and bull trout associated with Alternative 2 (the Proposed Action) to approve the Elwha River HGMPs in its December 10th BiOp, and concluded that:

...on balance, the effects on listed salmon and steelhead are beneficial.... As described above, the proposed action covers continued operation of the five hatchery programs over the initial phases of fish restoration in the Elwha River – the preservation and recolonization phases...

* * *

With regards to the actions proposed in the hatchery plans for Chinook salmon and steelhead, we note that supportive breeding of at-risk species has had widespread, accepted use, world-wide, and for many decades. Well known examples of such efforts where effective alternatives

⁶ The Hurd Creek Hatchery and Sol Duc Hatchery are operated in conjunction with the Elwha Rearing Channel. The previous dam owners had funded the Rearing Channel as mitigation for the dams. After NPS acquired ownership of the dams, NPS recommended continued funding of the Rearing Channel, although there was and is no contractual obligation to do so.

for saving the species were not available on the short term include supportive breeding-based recovery actions to prevent extinction of the California condor; black-footed ferret; and Redfish Lake sockeye salmon. Supportive breeding has been used as a means to preserve, and improve the viability of, these and many other unique animal populations placed at moderate or high risk of extinction by anthropogenic threats, in particular degradation or elimination of natural habitat sustaining the animals. The proposed hatchery plans considered in this opinion would perform the same preservation and population recovery functions for the ESA- listed and non-listed salmonid species in the Elwha River watershed during the preservation and recolonization phases of restoration, and effects in later phases will continue to be risk averse and beneficial. All fish species in the watershed, including listed Chinook salmon and steelhead, have been driven to critically poor viability levels due to long term blockage and degradation of critical habitat by the construction and operation of the Elwha dams. The already depressed populations are now further threatened with extinction from the effects of the release of massive quantities of stored sediments as the dams are removed. NMFS agrees with the conclusions of the HSRG [Hatchery Scientific Review Group] (2012) that the supportive breeding strategies proposed in the HGMPs are likely to be successful at preserving the existing genetic resources of salmon and steelhead throughout the period of adverse habitat conditions during and immediately following dam removal in the Elwha River Basin. NMFS believes that the Chinook salmon and steelhead supportive breeding programs are important tools to meet preservation and recolonization objectives and to avoid subjecting listed species to unnecessary risks.⁷

NPS agrees with NMFS's analysis regarding the impacts of hatchery operations which apply to the limited periods of preservation and recolonization.

OTHER ALTERNATIVES CONSIDERED

Three other alternatives were considered in NFMS's EA:

No Action Alternative: Under this alternative, NMFS would not make a determination under the 4(d) Rule. NMFS states that the Tribe and WDFW would continue to operate the Elwha River hatchery programs as under baseline conditions without NMFS's ESA determination, and consequently, have no ESA coverage. This represents NMFS's best estimate of what would happen if it did not find that the submitted plans meet the requirements of the 4(d) Rule. This alternative is required to set a baseline for comparison of impacts. The baseline is the existing, status quo environment with the hatchery programs already having been in operation for many years.

Alternative 3: Under Alternative 3, the HGMPs would be revised to specify a sunset term for the Elwha River hatchery programs, and NMFS would make a determination that the revised HGMPs meet the requirements of the 4(d) Rule. The Elwha River hatchery programs would terminate after the dams have been removed, sediment levels have returned to pre-dam removal levels, and salmon and steelhead have exhibited some natural productivity. In short, the hatchery programs would terminate near the end

⁷ December 10th BiOp, *supra* note 4, at 176 (internal citations omitted).

of the preservation phase (see Subsection 1.5.2, Elwha River Fish Restoration Plan). Thus, the last hatchery-origin fish would be expected to be released around 2019.

This alternative would not be expected to meet the Tribe's, WDFW's, or NPS's Purpose and Need for action, because substantial progress toward fish restoration might not occur in a 20- to 30-year time frame under this alternative.

Alternative 4: Under Alternative 4, NMFS would make a determination that the submitted HGMPs do not meet the requirements of the 4(d) Rule, and the Elwha River hatchery programs would be terminated immediately. All salmon and steelhead currently being raised in hatchery facilities would be released or killed, and no additional broodstock would be collected. Under this Alternative, NPS would not provide or recommend funding for hatchery operations as described in the HGMPs.

This alternative would not be expected to meet the Tribe's, WDFW's, or NPS's Purpose and Need for action because substantial progress toward fish restoration in the Elwha River might not occur in a 20- to 30-year time frame under this alternative.

ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

The following alternatives were considered by NMFS but dismissed and not analyzed in detail:

Operate Hatchery Programs for Listed Species Only: Under this alternative, hatchery production of only Chinook salmon and steelhead would occur as proposed in the HGMPs for those species. This alternative was not analyzed in detail because Alternatives 1 and 2 disclose environmental effects of operating the Chinook salmon and steelhead hatchery programs, and Alternative 4 discloses the environmental effects of terminating the chum, coho, and pink salmon hatchery programs.

Approve Proposed Hatchery Programs under Section 10 of the ESA: Under this alternative, NMFS would determine that the five proposed hatchery programs, as described in the HGMPs, meet the requirements for either section 10(a)(1)(A) permits (for Chinook salmon and steelhead programs) or section 10(a)(1)(B) permits (for coho, pink, and fall chum salmon programs). This alternative would not be meaningfully different from the Proposed Action and was not analyzed in detail.

Hatchery Programs with Additional Best Management Practices: Under this alternative, additional best management practices (BMPs) would be added to further reduce the risk of adverse impacts of the hatchery programs on natural-origin salmon and steelhead populations. However, this alternative would not be meaningfully different from the Proposed Action and was not analyzed in detail.

Hatchery Programs with Increased Production Levels: This alternative was not analyzed in detail because substantially higher production levels would exceed fish rearing density limits for the hatchery facilities and result in increasingly adverse fish health and survival effects on the hatchery-origin fish.

Hatchery Programs with Decreased Production Levels: This alternative was not analyzed in detail because its effects would not be meaningfully different than the effects of Alternative 4, as hatchery programs at the proposed production levels are only able to produce minimal adult returns.

Hatchery Programs that Release Fish in Streams outside of the Elwha River Basin to Maintain a Genetic Reserve during the Preservation Phase: Elwha River fish would be propagated in hatcheries and released in rivers that would be more hospitable to salmon and steelhead than the Elwha River during the preservation phase of Elwha River restoration. This alternative is not meaningfully different than Alternative 2, which considers fish being released into a stream outside the Elwha River Basin (Morse Creek) to maintain a genetic reserve for Chinook salmon during the preservation phase. No other streams would be needed to maintain a genetic reserve, and releasing fish into streams that contain native salmon and steelhead populations would adversely impact native salmon and steelhead populations in those streams.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The NPS, in accordance with DOI and NPS policies and guidance, Director's Order 12, and CEQ's *NEPA's Forty Most Asked Questions*, defines the Environmentally Preferable Option as the one that "causes the least damage to the biological and physical environment." It is the alternative "which best protects, preserves, and enhances historic, cultural and natural resources." After a thorough review of the Final EA with respect to impacts to NPS-managed land, the NPS has determined that Alternative 2 (the Proposed Action) is the Environmentally Preferable Alternative. This alternative is environmentally preferable because it provides the greatest benefits to the natural environment by preserving fish stocks during the adverse impact period of dam removal, during which sediment levels are expected to reach levels that are likely to cause fish mortalities and possible extirpation.

As noted in the 2008 Elwha River Fish Restoration Plan:

A critical component of the overall restoration strategy is the preservation of existing populations during the time the dams are being removed. Although natural recolonization is an integral part of the overall restoration strategy, sediment levels in the mainstem Elwha River below Glines Canyon Dam are expected to reach levels that may cause direct mortality to fish. Hatcheries will be used to ensure an adequate number of fish survive the removal process to effectively preserve and restore currently extant fish populations in the watershed.⁸

The 2008 plan provides multiagency guidance for preserving and restoring fish populations before, during, and after dam removal. It is a source of guidance providing information on how to carry out fisheries restoration in a consistent, rational, and scientifically-sound manner, and relies on further actions taken by different entities (e.g., implementation of the HGMPs).⁹

⁸ 2008 Elwha River Fish Restoration Plan, at x.

⁹ As the Final EA discusses, the HGMPs further divide the "post-dam removal" stage into three additional stages of recolonization, local adaptation, and self-sustaining. The Proposed Action in the Final EA would only cover the

The 2008 version reflected refined scientific information from earlier drafts of the plan.¹⁰ The updated information further confirmed the scientific community's historical, fundamental understanding of how hatchery fish may affect wild stocks in the Elwha River and did not reveal significant advances in fishery and hatchery sciences, including no new science on how to protect fish stocks from sediment loads that greatly exceed survival limits of fish.

The listing of Puget Sound steelhead as threatened has not had a significant impact on NPS's understanding of the effects of the Elwha River Restoration Project analyzed in the EISs; whether listed or not, the effect of the Elwha Project on wild steelhead is the same: a major expansion of accessible habitat with a hatchery program to shield the species during the high sediment impact period.

It should be noted that the Chambers Creek program, which was analyzed in the previous EISs, has been terminated and requires no additional NEPA analysis, whatever its effects may have been in the past.

MITIGATION MEASURES

Mitigation measures are outlined in the HGMPs, the Incidental Take Statement (ITS) in the December 10th BiOp for Chinook salmon and steelhead, and the ITS in the December 3rd BiOp for bull trout.

NPS is committed to implementing the terms of these BiOps and ITSs, to the fullest scope of its authority.

Notably, the five joint HGMPs include performance standards and indicators designed to identify, monitor, and evaluate the benefits and risks associated with the supportive breeding programs, and progress in achieving population viability status triggers identified for listed Chinook salmon and steelhead for the two phases of restoration (preservation and recolonization). Monitoring and evaluation actions are in place to address hatchery-related impacts on natural-origin populations, and identification of the viability status of affected listed salmon and steelhead populations in the Elwha River.

preservation and recolonization phases, as those are defined in the HGMPs. The 2008 Elwha River Fish Restoration Plan describes three stages of fish restoration: before dam removal, dam removal (3-year period), and post-dam removal (10 years following removal). See Elwha River Fish Restoration Plan, at xi.

¹⁰ The Elwha River Fish Restoration Plan was produced by the Tribe, NPS, WDFW, and FWS. It was published as a technical memorandum by NOAA Fisheries in April 2008. Early drafts of the plan were produced in 1994 in the Elwha Report, and in 1996, as an appendix to the Elwha River Ecosystem Restoration Implementation EIS, which examined the impacts of dam removal, the adverse impact period of heavy sedimentation resulting from dam removal, and the effect it would have on fish in the river.

There are many Terms and Conditions requiring mitigation under the December 10th BiOp for Chinook salmon.¹¹ Among these, the following monitoring and analysis activities are required under the Terms and Conditions to gauge and assess the impacts of hatchery operations on natural fish:

2a. The Action Agencies¹² must ensure that LEKT and WDFW monitor and evaluate the performance and effects of the programs, and manage the programs in response to findings, to meet program objectives while minimizing impacts on listed Puget Sound Chinook salmon... The supportive breeding programs shall be adjusted in response to monitoring and evaluation data...

2b. The Action Agencies must ensure that LEKT and WDFW monitor the annual abundance, timing, distribution, and origin of Chinook salmon adults escaping to the Elwha River watershed above and below the dam sites using methods sufficient to provide estimates of the status of the natural- and hatchery-origin components of the population, proportions of the population by origin escaping to the river above and below the dam sites, relative contribution of natural- and hatchery-origin fish to natural spawning, and the effects of supportive breeding actions in meeting restoration objectives.

2c. The Action Agencies must ensure that LEKT and WDFW monitor the annual abundance, timing, life history stage, and origin of Chinook salmon juveniles emigrating seaward from production areas in Elwha River watershed above and below the dam sites using methods sufficient to derive estimates of the productivity status of the naturally produced component of the population, migrational overlap and behavior of natural- and hatchery origin fish, and the effects of supportive breeding actions in meeting restoration objectives.¹³

Terms and Conditions 3a, 3b, and 3c have similar requirements for steelhead.

As required by the ITS issued to NPS by NMFS in the BiOp, dated July 2, 2012, amended November 30, 2012, NPS submitted a monitoring plan outlining how NPS will support monitoring and adaptive management activities to monitor salmonid abundance, distribution, productivity, stock composition, and general habitat and ecosystem conditions and to assess the impacts associated with dam removal to ESA listed species. NPS has submitted this plan, which specifies current available monitoring steps and suggestions, and identifies a lead to carry out each of these steps, such as NPS, the Tribe, or WDFW. NPS's monitoring plan builds upon activities that are expected to occur (on a more likely than not basis) by others, such as the Tribe, WDFW, USFWS, Bureau of Reclamation, and NMFS.

WHY THE SELECTED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT

The NPS has selected Alternative 2 (the Proposed Action), as further described under "Conclusion" below. NPS has determined that it can be implemented with no significant adverse effects to the human

¹¹ December 10th BiOp, *supra* note 4, at 190.

¹² The Action Agencies are NOAA Fisheries, NPS, BIA, and FWS. December 10th BiOp, *supra* note 4, at 1.

¹³ December 10th BiOp, *supra* note 4, at 184-185.

environment. Pursuant to 40 C.F.R. § 1508.27 and NPS Director's Order 12, significance is determined by examining the following criteria:

Impacts that may have both beneficial and adverse aspects and which on balance may be beneficial, but that may still have significant adverse impacts that require analysis in an EIS:

The beneficial aspects to the Selected Alternative are protection of native anadromous fisheries during the preservation and recolonization phases. Supportive breeding has been used to preserve, and improve the viability of, these and many other unique animal populations placed at moderate or high risk of extinction by anthropogenic threats, in particular degradation or elimination of natural habitat sustaining the animals. The proposed hatchery plans would perform the same preservation and population recovery functions for the ESA- listed and non-listed salmonid species in the Elwha River watershed during the preservation and recolonization phases of restoration. The supportive breeding programs are important tools to meet preservation and recolonization objectives and to avoid subjecting listed and non-listed species to unnecessary risks.

Salmon and Steelhead:

As removal of the two dams on the Elwha River continues, habitat conditions for salmon and steelhead downstream of the dams will continue to degrade in the short-term, as sediment that was trapped behind the dams is released, increasing turbidity levels, and making water quality conditions inhospitable for fish in mainstem and side-channel reaches of the lower Elwha River.

The high sediment loads will cause deleterious effects in the egg to fry life stages for all species of fish present in the lower watershed. Fish exposed to sediment loads between 50 and 100 ppm for an extended period of time may stop feeding, suffer gill abrasion, and experience loss of fitness due to the associated stress. At turbidity levels above 1,000 ppm, direct mortality of fish may result simply from the elevated sediment loads. With sediment loads expected to exceed 10,000 ppm, all salmon and steelhead rearing naturally and/or migrating in the Elwha River below Glines Canyon Dam may be killed by stored sediment released during dam removal.

In the long term, dam removal is expected to fully restore riverine sediment delivery to a natural condition, and partially restore sediment-starved areas in the nearshore marine environment. Several years will likely be required to reach equilibrium between sediment supply and transport capacity. By 2013, natural-origin salmon and steelhead are expected to have access to habitat above Glines Canyon Dam (River Mile 13.5) because of the scheduled dam removal.

The attached Table 1 lists the various effects through which the hatchery programs could affect natural-origin salmon and steelhead populations in the Elwha River. However, there are substantial program elements designed to minimize these impacts during the preservation and recolonization phases of the restoration of the Elwha River. Potential impacts such as disease, competition and predation are minimized by the location of the hatchery release sites near the mouth of the river, which limits the potential interaction of hatchery and natural-origin fish. Disease is further minimized by the hatchery

operators' strict adherence to Washington State disease control protocols. Genetic risks are minimized by using native fish stocks, using large effective breeding size, collecting broodstock across the entire run-timing of the species, and applying proper broodstock selection and mating protocols.

Fish:

There would be some effects on fish other than the Chinook salmon, coho salmon, pink salmon, chum salmon, and steelhead species (non-target species). The proposed hatchery programs may affect non-target species in the Elwha River Basin in three ways: through obstruction or other behavioral effects of the structures required by the proposed programs, through incidental impacts in fisheries targeting fish returning to the proposed programs, and through ecological interactions.

The proposed hatchery programs are not expected to jeopardize the sustainability of any of these non-target species because (1) few non-target species would be intercepted by the Elwha River weir, and (2) few non-target species would be intercepted in fisheries targeting salmon and steelhead.

Non-target, ESA-listed fish that may be affected include bull trout and eulachon. An ESA section 7 consultation on the proposed HGMPs was completed by NMFS on species under its jurisdiction, and it concluded that the effects of the programs would not jeopardize the continued existence of eulachon. An ESA section 7 consultation was initiated with the FWS concerning incidental impacts on bull trout. It concluded that adverse effects were likely to occur to bull trout, but not likely to jeopardize the continued existence of the bull trout, and would not destroy or adversely modify bull trout critical habitat.

In addition, an ESA section 7 consultation was completed on the impacts of the proposed hatchery programs on ESA-listed fish, and it concluded that the effects of the hatchery programs would not jeopardize the continued existence of the Puget Sound Chinook Salmon ESU or the Puget Sound Steelhead and Southern Pacific Eulachon DPSs.

The effect of the proposed hatchery programs on ESA-listed fish would be small because the proposed plans are specifically designed to minimize known impacts on ESA-listed fish and to evaluate uncertainties. The proposed hatchery programs include explicit steps to monitor and evaluate these uncertainties and include adaptive management actions that allow for the timely adjustment to risks that might arise.

Wildlife:

Impacts on birds and terrestrial wildlife can occur from operation of weirs, predator control programs, habitat disruption from angler access, or contribution of hatchery-origin fish to the diet of birds and wildlife species. In this case, birds and terrestrial wildlife are not expected to be harmed at the Elwha River weir since none have been intercepted at the site to date. Nets would be used to exclude predators rather than hazing. No habitat disruption is expected from angler access because no new

access points would be created. The proposed hatchery programs would be expected to increase the number of salmon and steelhead in the Elwha River Basin, which would increase the food availability for salmon and steelhead predators and scavengers (e.g., bald eagles), and may have a low beneficial impact on these wildlife populations.

Water Quantity:

Hatchery programs can affect water quantity when they take water from a well (groundwater) or a neighboring river or tributary streams (surface water) to use in the hatchery facility for broodstock holding, egg incubation, juvenile rearing, and juvenile acclimation. The water, minus evaporation and groundwater recharge/seepage, that is diverted from a river or taken from a well is generally returned to the source after it circulates through the hatchery facility. When hatchery programs use groundwater, they may reduce the amount of water for other users in the same aquifer. When hatchery programs use surface water, this may lead to less water in the stream between the water intake and discharge structures, which may impact fish and wildlife if migration is impeded or dewatering leads to increased water temperatures. Generally, water intake and discharge structures are located as close together as possible to minimize the area of the stream that may be impacted by a water withdrawal.

Six hatchery facilities are currently used by the Elwha River hatchery programs. One of the hatchery facilities uses groundwater exclusively except in the case of emergencies (Hurd Creek), two of the acclimation facilities use surface water exclusively (Morse Creek Facility and Sol Duc Hatchery), and three facilities use both groundwater and surface water (Elwha Channel Facility, Lower Elwha Fish Hatchery, and Manchester Research Station).

All hatchery facilities are operating under current water rights.

Under the Selected Alternative, the Elwha River hatchery programs would have the same production levels as under Alternative 1 (the No-Action alternative), so the same amount of groundwater and surface water would be used as under Alternative 1 for broodstock holding, egg incubation, juvenile rearing, and juvenile acclimation. There would be no change in the amount of surface water flowing between the hatchery facilities' intake structure and discharge structure. Similarly, there would be no change in water quantities in any aquifer.

Water Quality:

Hatchery programs could affect several water quality parameters in the aquatic system. Concentrating large numbers of fish within hatcheries could produce effluent with ammonia, organic nitrogen, total phosphorus, biological oxygen demand, pH, and suspended solids. Chemical use within hatcheries could result in the release of antibiotics, fungicides, and disinfectants into receiving waters. Other chemicals and organisms that could potentially be released by hatchery operations are polychlorinated biphenyls (PCBs), dichlorodiphenyltrichloroethane (DDT) and its metabolites, fish disease pathogens, steroid hormones, anesthetics, pesticides, and herbicides.

The direct discharge of hatchery facility effluent is regulated through National Pollutant Discharge Elimination System (NPDES) permits under the Clean Water Act. In Washington State, the Environmental Protection Agency administers NPDES permits for all projects on Federal and tribal lands, and the Washington Department of Ecology administers NPDES permits for all other facilities.

All hatchery facilities used by the Elwha River hatchery programs are compliant with their NPDES permit or do not require a NPDES permit. All hatchery effluent is passed through pollution abatement ponds to settle out uneaten food and fish waste before being discharged into receiving waters.

As part of administering elements of the Clean Water Act, the Washington Department of Ecology is required to assess water quality in streams, rivers, and lakes. The 303(d) list identifies specific water bodies considered impaired (based on a specific number of exceedances of state water quality criteria in a specific segment of a water body). The Elwha River, Hurd Creek (a tributary to the Dungeness River), Sol Duc River, and the Puget Sound itself are on the 303(d) list. Activities within the analysis area that contribute to the degradation of water quality include dams, human development, agricultural practices, and forest practices.

Under the Selected Alternative, the Elwha River hatchery programs would have the same production levels, so there would be no expected change in water quality relative to Alternative 1 (the No-Action alternative) as a result of changes in the discharge of ammonia, nutrients (e.g., nitrogen), biological oxygen demand, pH, suspended solids levels, antibiotics, fungicides, disinfectants, steroid hormones, pathogens, anesthetics, pesticides, and herbicides into the Elwha River, Hurd Creek, Sol Duc River, or the Puget Sound from Elwha River hatchery programs. Consequently, there would be no change in compliance with NPDES permits or tribal wastewater plans, and there would be no change in the contribution of hatcheries to water quality in any 303(d) listed segment of river relative to the No-Action alternative.

Unique characteristics of the area (proximity to historic or cultural resources, wild and scenic rivers, ecologically critical areas, wetlands or floodplains, and so forth):

The proposed hatchery programs are not expected to result in substantial impacts on unique areas, such as historical or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

Cultural Resources:

Hatchery programs have the potential to affect cultural resources if there is construction or expansion at the hatchery facilities that disrupts or destroys cultural artifacts or if the hatchery programs affect the ability of Native American tribes to use salmon and steelhead in their cultural practices. NPS is not aware of any new construction proposed for any of the hatcheries.

The Lower Elwha Klallam Tribe's "usual and accustomed" fishing area includes the entire Elwha River Basin. However, the Elwha River dams have prevented salmon from migrating upriver. Since dam construction, the Tribe has targeted salmon and steelhead produced by the tribal and state hatchery programs in the lower 5 miles of the Elwha River. These fisheries have played a central role in the Lower Elwha Klallam Tribe's culture, in particular fisheries conducted for ceremonial and subsistence purposes. Currently, no salmon or steelhead returning to the Elwha River are targeted in Tribal fisheries, with the exception of nonnative (i.e., Chambers Creek stock), hatchery-origin steelhead. The Tribe has terminated all other fisheries during the 5-year period following initiation of dam removal activities.

Salmon represent an important cultural resource to the Lower Elwha Klallam Tribe. Under the Selected Alternative, the hatchery-programs would preserve the remaining extant salmon and steelhead populations while water-quality conditions inhospitable for fish in mainstem reaches of the Elwha River persist. In the long-term, the hatchery programs would increase total and natural-origin abundance and spatial structure of salmon and steelhead populations as additional habitat becomes available and first-generation hatchery-origin fish, and the offspring of naturally spawning hatchery-origin fish, return to spawn naturally. Consequently, the survival and well-being of salmon would improve under the Selected Alternative relative to baseline conditions, which would be expected to improve the well-being of the Lower Elwha Klallam Tribe, because salmon and the Tribe are inextricably linked.

Ecologically critical areas:

Designated critical habitat for the ESA-listed Puget Sound Chinook salmon, Puget Sound steelhead, and Pacific eulachon is within the affected area; however, all habitat impacts would be small under the proposed hatchery programs and are not considered significant.

Hatchery activities have the potential to indirectly impact wilderness areas within Olympic National Park (Park). They include:

- Broodstock collection at Elwha Channel Facility¹⁴ (River Mile 3.5 on the Elwha River), Lower Elwha Fish Hatchery (River Mile 1.25 on the Elwha River), Morse Creek Facility (River Mile 1.0 on Morse Creek), the Elwha River mainstem weir (River Mile 3.7 on the Elwha River), and through opportunistic seining, gaffing, and gill-netting in the lower Elwha River (downstream of River Mile 4.9 on the Elwha River).
- Holding, identification, and spawning of adult fish at WDFW's Elwha Channel Facility and Lower Elwha Klallam Tribe's Lower Elwha Fish Hatchery.

¹⁴ Chinook and pink salmon are the only species that would be collected for broodstock at the Elwha River Weir. The purpose of the weir is to monitor salmonid species status before, during, and after dam removal, but starting in 2011, some Chinook and pink salmon that were intercepted at the weir were transferred to hatchery managers for broodstock purposes.

- Egg incubation and fish rearing at Hurd Creek, Sol Duc, Elwha Channel , and Morse Creek Facilities (Elwha Channel Facility program), Lower Elwha Fish Hatchery (all other species programs), and Manchester Research Station (captive broodstock pink salmon program).
- Release of up to 2.5 million subyearling and 200,000 yearling Chinook salmon from Elwha Channel Facility; 200,000 yearling Chinook salmon from Morse Creek Facility (Elwha genetic reserve program); and 175,000 steelhead, 475,000 coho salmon, 1,025,000 fall chum salmon, and 3,000,000 pink salmon from Lower Elwha Fish Hatchery.
- Upstream transport and release of adult salmon and steelhead surplus to hatchery broodstock needs via truck.
- Monitoring and evaluation activities to assess the performance of the programs in preserving and recolonizing native salmon and steelhead.

The Wilderness Act, the NPS Organic Act of 1916, NPS Management Policies, and Reference Manual #41 apply to wilderness areas within the Park. Use of hatcheries to prevent the extirpation, and facilitate the recovery, of native anadromous fish is consistent with the Wilderness Act and NPS Organic Act and policies. Fisheries enhancement ultimately achieved by the Elwha River Restoration Project and use of hatcheries for the limited period of the preservation and recolonization phases is necessary for accomplishing the restoration of wilderness resources and values in the Park.

The Wilderness Act

NPS policy explicitly recognizes that management intervention can be used in wilderness areas to correct past mistakes. See Reference Manual 41: Wilderness Preservation and Management (“RM 41”) (6.3.7), at 19 (“Management intervention should only be undertaken to the extent necessary to correct past mistakes, the impacts of human use, and the influences originating outside of wilderness boundaries.”).

The National Wilderness Steering Committee (“Steering Committee”) produced a white paper on appropriate conservation and restoration activities within wilderness areas administered by the National Park Service.¹⁵ It “provides guidance on determining how and when to proceed with conservation actions in wilderness.”¹⁶ The Steering Committee recognizes that intentional intervention and active “manipulation” or management within wilderness can be appropriate and consistent with the Wilderness Act as applied through the NPS Organic Act and NPS policies.¹⁷ The Steering Committee provides guidance on determining what restoration and conservation activities are appropriate within wilderness.¹⁸ For example, a Class I short-term wilderness disturbance with long-term wilderness

¹⁵ National Wilderness Steering Committee, *Guidance White Paper Number 2* (February 2004) (“White Paper”).

¹⁶ White Paper, *supra* note 15, at 1.

¹⁷ See *id.* at 1-7.

¹⁸ See *id.*

character enhancement includes reintroduction of self-sustaining native species.¹⁹ A Class II action of longer-duration or recurring entry includes providing continuing support to a reintroduced species.²⁰

The use of artificial propagation to restore native fish stocks is compatible with the NPS Organic Act and NPS Management Policies.

In this case, NPS does not propose to reintroduce a species. Rather, NPS is attempting to prevent extirpation from occurring in the first place by collecting and moving fish to hatcheries, a clean, safe haven from the highly turbid inhospitable river environment resulting from the release of almost 100 years' worth of sedimentation accumulated behind the dams, and supplementing these fish with hatchery origin fish.

NPS is actively managing a natural ecosystem that has been disrupted by past human activities, by re-establishing natural functions and processes, preserving the abundance of native anadromous fish, including ESA-listed species, and maintaining and restoring the natural distribution, numbers, and population composition of all fish.

Degree to which effects on the quality of the human environment are likely to be highly controversial:

The use of hatcheries for the Elwha River Restoration Project was analyzed in two National Park Service EISs and one supplemental EIS.

In 1995, the NPS completed the Elwha River Ecosystem Restoration EIS, evaluating alternatives for restoring the Elwha River by wholly or partially removing the dams, or modifying them to incorporate fish passage capabilities.

In 1996, NPS completed the Elwha River Ecosystem Restoration Implementation EIS, analyzing possible alternatives for removing both dams and implementing fish restoration measures. The analysis carefully examined the level of expected sediment flowing down the Elwha River as a result of dam removal and the effect this would have on fish. NPS found that levels of sedimentation in the river could cause physiological stress and reduced growth, mortality from chronic exposure, and mortality from acute exposure. As such, NPS considered hatchery programs as an appropriate and necessary means to offset the adverse impacts of sediment.

In 2005, NPS produced a Supplemental EIS, examining more in-depth proposed water treatment and mitigation measures. Specifically, NPS considered relocating the Tribe's Lower Elwha Fish Hatchery, and installing rearing ponds to protect Elwha Chinook during dam removal and ensure their survival.

¹⁹ *Id.* at 5.

²⁰ *Id.* at 6.

The five hatchery programs proposed under the HGMPs and NMFS's Final EA examining the proposed programs and alternatives are the subject of ongoing litigation. Plaintiff Wild Fish Conservancy, in part, challenges the continuation of the five hatchery programs that are the subject of the HGMPs, as being detrimental to recovery of ESA-listed salmonids.

No comments were received by Wild Fish Conservancy during the public comment periods for the 1995, 1996, and 2005 EISs. During the comment period for the draft EA, Wild Fish Conservancy commented that it opposed the Proposed Action. Three other comment letters were received, supporting the Proposed Action.

NPS does not consider Wild Fish Conservancy's dissenting letter to indicate that effects on the quality of the human environment are "highly controversial." The issues raised in the letter have been fully reviewed by the numerous federal, state, and tribal agencies involved, and no agency has objected to the hatchery programs.

Further, as the December 10th BiOp states, the use of hatcheries is "widely supported in the regions' salmon management and scientific communities to reduce the risk that salmon and steelhead populations remaining in the Elwha River from becoming extirpated."

Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration:

The Selected Alternative does not establish an NPS precedent for future actions with significant effects or represent a decision in principle about a future consideration.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts:

The cumulative impacts of the proposed hatchery programs have been considered in the Final EA and in the December 10th BiOp. The take of ESA-listed species will be limited to those resulting from the removal of the two dams, construction and operation of mitigation facilities, and implementation of measures necessary to protect and restore native anadromous fisheries during the preservation and re-colonization phases. Further, the proposed hatchery programs are coordinated with monitoring efforts so that fisheries managers can respond to changes in the status of affected listed species, consistent with the goal of fully restoring the Elwha River ecosystem and native anadromous fisheries.

The Bureau of Indian Affairs and U.S. Fish & Wildlife Service provide periodic funding to the Tribe for operation and maintenance of the tribal hatchery. Though no decision has been made, NPS may provide limited operation and maintenance funding for the tribal hatchery through a negotiated final settlement and release agreement if that is determined by NPS to be necessary during the preservation and re-colonization phases. NPS provides funding to WDFW for operation and maintenance of the Morse

Creek facility. The NPS recommends NPF funding for the Rearing Channel (which is operated jointly with the Hurd Creek Hatchery and Sol Duc Hatchery).

The effects of funding are encompassed within the effects analyzed for the hatchery programs themselves and do not result in additional or cumulative impacts.

The action is related to other hatchery production programs, many of which are guided by the same legal agreements, mitigation responsibilities, and managed by the same agencies. Though the action is related to those other activities, the affected environment considers many of the ongoing impacts associated with other programs such as water withdrawals and release numbers throughout the basin. Any cumulative impacts are not expected to rise to the level of significance.

The degree to which the action may adversely affect historic properties in or eligible for listing in the National Register of Historic Places, or other significant scientific, archeological, or cultural resources:

The proposed hatchery programs do not include any new construction, and are therefore unlikely to adversely affect any structures listed on or eligible for the National Register of Historic Places. In addition, it is unlikely that the Proposed Action will adversely affect significant scientific, archeological, or cultural resources.

Degree to which an action may adversely affect an endangered or threatened species or its habitat:

NMFS completed the December 10th BiOp considering the impacts to ESA-listed (threatened) Chinook and steelhead, finding that approval of the HGMPs is not likely to jeopardize the continued existence of Puget Sound Chinook salmon or steelhead, or result in the destruction or adverse modification of their critical habitat, where designated. FWS completed the December 3rd BiOp considering the impacts to ESA-listed (threatened) bull trout. It concluded that the Proposed Action is not likely to jeopardize the continued existence of bull trout or destroy or adversely modify designated critical habitat. To minimize impacts of incidental take, FWS included Terms and Conditions in the ITS.

Whether the action threatens a violation of Federal, state, or local law or requirements imposed for the protection of the environment:

No Federal, state, or local environmental protection laws that will be violated. The 4(d) Rule is designed to ensure compliance with the ESA. A finding by NMFS that the HGMPs meet the 4(d) Rule is a finding that implementation of the HGMPs, and any financial support by DOI of the hatchery programs described in the HGMPs, is compliant with the ESA.

Public Health & Safety:

The proposed hatchery programs are not expected to have a substantial adverse impact on public health or safety.

PUBLIC INVOLVEMENT

NMFS released a Draft EA on the effects of the five HGMPs for a 30-day public comment period on October 16, 2012 (77 FR 63294). It received four comment letters and produced a Final EA in December 2012, reflecting changes based on comments received. Three comment letters were supportive of Alternative 2 (the Proposed Action), and one comment letter opposed this alternative.

The comment letters were received from:

- Point No Point Treaty Council, a tribal organization that provides natural resource support to the Port Gamble S'Klallam Tribe and Jamestown S'Klallam Tribe. They supported selection of Alternative 2, particularly with regard to this alternative furthering treaty-reserved fishing rights.
- The Lower Elwha Klallam Tribe reaffirmed its support for the HGMPs it submitted to NMFS, and emphasized the importance of restoration and recovery of the anadromous fisheries as a critical element to the Tribe's treaty fishing rights.
- The Northwest Indian Fisheries Commission emphasized that "the exercise of treaty rights in the future is inextricably linked to hatchery programs that will both protect against the very real risk of extinction of salmon and steelhead populations following dam removal and expedite their recovery to harvestable levels."
- Wild Fish Conservancy provided comments, asserting that the HGMPs do not satisfy Limit 6 of the 4(d) Rule, and that implementation of the HGMPs poses severe risks and will impede the recovery of threatened salmonids.

The Final EA was posted on NOAA Fisheries Northwest Regional Office's web site on December 21, 2012: http://www.nwr.noaa.gov/publications/nepa/washington_nepa_documents.html

CONCLUSION

After consultation with NMFS, a review of the NMFS Final EA and FONSI (December 10, 2012), NMFS Decision Memo (December 10, 2012), NMFS Biological Opinion (December 10, 2012), and the FWS Biological Opinion (December 3, 2012), the National Park Service adopts the Final EA, in accordance with 43 C.F.R. § 46.320.

The Final EA fulfills the requirements of the NEPA and its applicable regulations. The Final EA satisfies the policies set forth in the NPS's Director's Order 12, *Conservation Planning, Environmental Impact Analysis and Decision-Making*, and its accompanying Handbook.

Taking into consideration the impacts described in the Final EA and related documentation, consultation with NMFS; NPS and DOI laws, regulations, and policies, professional judgment of an interdisciplinary team, and public comments, the NPS accepts the analysis of Alternative 2 in NMFS's Final EA, and

considers this analysis adequate for purposes of analyzing the impacts of NPS's funding activities of the Elwha River hatchery programs consistent with the HGMPs. NPS adopts Alternative 2. NPS funding of the Elwha River hatchery programs, consistent with the HGMPs, will result in no additional or cumulative impact. The effects of NPS's funding actions or recommendation actions are subsumed within the effects of the Elwha River hatchery program operations already analyzed by NMFS in the Final EA.

We conclude that no significant effects on the human environment will be caused by Alternative 2 described in the Final EA and any funding NPS provides or recommends in support of this alternative, consistent with the HGMPs. Alternative 2 will not cause highly uncertain or controversial impacts, unique or unknown risks, or significant cumulative impacts. Furthermore, Alternative 2 will not violate any federal, state, or local environmental protection law. Alternative 2 does not constitute a major federal action that significantly affects the quality of the human environment. Based on the foregoing an EIS is not required for this action and thus will not be prepared.

Recommended:

Sarah Creachbaum
Superintendent
Olympic National Park

Date

Approved:

Christine Lehnertz
Regional Director
Pacific West Region

Date

DETERMINATION OF NON-IMPAIRMENT OF PARK RESOURCES OR VALUES

This determination of no impairment of park values and resources has been rendered solely by the National Park Service (NPS), and applies only to lands within Olympic National Park (the “Park”).

NPS Management Policies 2006 (Policies) state that the two most important statutory directives for the National Park Service are the Organic Act of 1916 and the General Authorities Act of 1970, including the 1978 Redwood amendment to the 1970 act. *See* Policies (1.4.1), at 10. The fundamental purpose of the National Park System, established by the Organic Act and reaffirmed by the General Authorities Act, as amended by the Redwood amendment, is to conserve park resources and values and leave them unimpaired unless a specific law clearly provides otherwise.

The Policies describe impairment as follows:

[A]n impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. Whether an impact meets this definition depends on the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts.

Policies (1.4.5), at 11.

“Park resources and values” means the following:

- the park’s scenery, natural and historic objects, and wildlife, and the processes and conditions that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structures, and objects; museum collections; and native plants and animals;
- appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them;
- the park’s role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and
- any additional attributes encompassed by the specific values and purposes for which the park was established.

Policies (1.4.6), at 11-12.

The enabling legislation of Olympic National Park (June 29, 1938, 35 Stat. 2247) states that it is “set apart as a public park for the benefit and enjoyment of the people.”

House Report 2247 (April 28, 1938) states that the purpose of Olympic National Park is to:

“preserve for the benefit, use, and enjoyment of the people, the finest sample of primeval forests of Sitka spruce, western hemlock, Douglas fir, and western red cedar in the entire United States;

to provide suitable winter range and permanent protection for the herds of native Roosevelt elk and other wildlife indigenous to the area; to conserve and render available to the people, for recreational use, this outstanding mountainous country, containing numerous glaciers and perpetual snow fields, and a portion of the surrounding verdant forests together with a narrow strip along the beautiful Washington coast.”

Significance statements are developed for each unit of the National Park Service. They answer questions such as “Why are Olympic National Park’s resources distinctive?” and “What do they contribute to our natural and cultural heritage?” Significance statements for Olympic National Park were developed during the General Management Plan process (2008) and they are as follows:

- Olympic National Park protects several distinctly different and relatively pristine ecosystems, ranging from approximately 70 miles of wild Pacific coast and islands through densely forested lowlands to the glacier-crowned Olympic Mountains.
- The ecosystems protected within Olympic National Park contain an array of habitats and life forms, resulting from thousands of years of geographic isolation, along with extreme gradients of elevation, temperature, and precipitation. At least 16 kinds of animals and 8 kinds of plants on the Olympic Peninsula exist nowhere else in the world.
- Olympic National Park contains some of the last remaining undisturbed, contiguous aquatic habitat throughout the range of several west coast fish species. The park protects 12 major river basins, more than 3,500 miles of rivers and streams within 11 watersheds, more than 300 high mountain lakes, and two large lowland lakes. The park also supports more than 70 unique stocks of Pacific salmonids, 29 native freshwater fish species, and one endemic fish species.
- Olympic National Park protects the primeval character of one of the largest wilderness areas in the contiguous United States.
- Olympic National Park protects some of the finest remaining stands of old-growth temperate rain forest in the United States. These forests of ancient and immense trees provide habitat for dozens of smaller plants and animals, including important habitat for a number of threatened species.
- The Olympic rocky intertidal community is considered to be one of the most complex and diverse shoreline communities in the United States. Olympic National Park protects about 1,400 square miles of the intertidal, island, and shoreline habitat, and, combined with the neighboring Olympic Coast National Marine Sanctuary and U.S. Fish and Wildlife Service Washington Islands National Wildlife Refuge and Wilderness, a total of 3,600 square miles of intertidal, island, and ocean habitats is protected.
- Olympic National Park protects the largest population of Roosevelt elk in its natural environment in the world. Decades of protection from human harvest and habitat manipulation have sustained not only high densities of elk, but also preserved the natural composition, social structure, and dynamics of this unique coastal form of elk as found nowhere else.
- Olympic National Park protects important cultural resources, with regional and national significance, including more than 650 archeological sites, 31 cultural landscapes, and 16 historic districts. There are 128 historic structures in the park boundaries that are on the List of Classified Structures.

For an NPS decision-maker to use his or her professional judgment to make an impairment determination requires the following:

[T]he decision-maker must consider any environmental assessments or environmental impact statements required by the National Environmental Policy Act of 1969 (NEPA); consultations required under section 106 of the National Historic Preservation Act (NHPA), relevant scientific and scholarly studies; advice or insights offered by subject matter experts and others who have relevant knowledge or experience; and the results of civic engagement and public involvement activities relating to the decision...

Policies (1.4.7), at 12.

Impairment Determinations for the Selected Alternative

Impairment determinations are not necessary for visitor experience, socioeconomics, public health and safety, environmental justice, land use, and park operations, etc., because impairment findings relate back to park resources and values. These impact topics are not generally considered to be park resources or valued according to the Organic Act, and cannot be impaired the same way that an action can impair park resources and values. After dismissing the above topics, topics remaining to be evaluated for impairment include geology and soils, vegetation, water resources, and historic resources.

Geology and Soils

Restoration of the Elwha River ecosystem and fisheries will eventually result in more fishing opportunities. Fisheries have the potential to affect wildlife through habitat disruption that may occur from physical damage or disruption of riparian vegetation from angler access as well as physical disruption of streambed material by wading or boat use (motorboats are prohibited on the Elwha River within the Park). Currently, the only active fishery on the Elwha River is a Tribal steelhead fishery on non-native hatchery-origin steelhead (e.g., Chambers Creek) within the lower 5 miles of the Elwha River. There are no other fisheries in the Elwha River at this time due to a 5-year moratorium during Elwha and Glines Canyon dam removals. The Elwha River and its tributaries within the Park are closed to fishing from 2012 to 2017. NPS anticipates that fishing within the Park will commence again at the end of the recolonization phase. However, assuming there is overlap with fishing and the recolonization phase, because there has been subsistence and recreational fishing in the Elwha River Basin prior to the fishing moratorium, fishery access points, roads, and boat launches (there is only one at the Altair campground) are already present within the Park and will not result in impairment to Park resources, as these areas have already been disturbed.

Cultural Resources

Hatchery programs can impact cultural resources if there is construction or expansion of a hatchery facility, or if the hatchery programs affect the ability of Native American tribes to use salmon and steelhead in their cultural practices. Salmon represent an important cultural resource to the Lower Elwha Klallam Tribe. It is a core symbol of tribal identity, individual identity, and the ability of Native American cultures to endure

The Lower Elwha Klallam Tribe's "usual and accustomed" fishing area includes the entire Elwha River Basin. However, the Elwha River dams have prevented salmon from traveling upriver. Since dam construction, the Tribe has targeted salmon and steelhead produced by the tribal and state hatchery programs in the lower 5 miles of the Elwha River. These fisheries have played a central role in the Lower Elwha Klallam Tribe's culture, in particular fisheries conducted for ceremony and subsistence purposes. Currently, no salmon or steelhead returning to the Elwha River are targeted in Tribal fisheries, with the exception of nonnative (i.e., Chambers Creek stock), hatchery-origin steelhead. The Tribe has terminated all other fisheries during the 5-year period following initiation of dam removal activities.

Under the Selected Alternative, no cultural artifacts would be disrupted or destroyed. Additionally, in the short-term, the hatchery-programs would preserve the remaining extant salmon and steelhead populations while water-quality conditions inhospitable for fish in mainstem reaches of the Elwha River persist. In the long-term, the hatchery programs would increase total and natural-origin abundance and spatial structure of salmon and steelhead populations as additional habitat becomes available and first-generation hatchery-origin fish, and the offspring of naturally spawning hatchery-origin fish, return to spawn naturally. Consequently, the survival and well-being of salmon would improve under the Selected Alternative, which would be expected to improve the well-being of the Lower Elwha Klallam Tribe, because salmon and the Tribe are inextricably linked.

NPS is not aware of any new proposed construction under the Proposed Action, including within the Park. The hatchery programs approved under the Selected Alternative will preserve salmon and steelhead populations, a critical cultural resource to the Tribe. No impairment of Park resources would occur.

Wildlife

Birds and terrestrial wildlife will not be impaired. Nets will be used to control predators, instead of hazing. None of the hatchery facilities supporting the Elwha River hatchery programs hazes wildlife to prevent them from eating fish being raised in the hatchery facilities. Further, the hatchery facilities are located outside the Park.

Fisheries

Salmon and steelhead will not be impaired. There are substantial program elements designed to minimize these impacts during the preservation and recolonization phases of the restoration of the Elwha River. Potential impacts such as disease, competition and predation are minimized by the location of the hatchery release sites near the mouth of the river, which limits the potential interaction of hatchery and natural-origin fish. Disease is further minimized by the hatchery operators' strict adherence to Washington State disease control protocols. Genetic risks are minimized by using native fish stocks, using large effective breeding size, collecting broodstock across the entire run-timing of the species, and applying proper broodstock selection and mating protocols. The effects of the hatchery programs would not jeopardize the continued existence of the Puget Sound Chinook Salmon ESU or the Puget Sound Steelhead.

Other natural origin fish would not be impaired. They would experience some effects through obstruction or other behavioral effects of the structures required by the proposed programs, through incidental impacts in fisheries targeting fish returning to the proposed programs, and through ecological interactions, such as competing with or being preyed upon by hatchery origin salmon and steelhead.

Bull trout and eulachon (ESA-listed fish) would not be impaired. The effects of the hatchery programs would not jeopardize the continued existence of the Southern Pacific Eulachon DPSs. They would also not likely jeopardize the continued existence of the bull trout, and would not destroy or adversely modify bull trout critical habitat.

Rather, all fish in the Elwha River will benefit from the hatchery programs by being protected from extirpation due to sediment levels in the river resulting from dam removal. Further, negative impacts that may result from the hatchery programs will be mitigated in accordance with the Terms and Conditions of the ITSs within the December 10th NMFS BiOp and the December 3rd FWS BiOp.

Water Quality & Quantity

Under the Selected Alternative, the Elwha River hatchery programs would have the same production levels as under Alternative 1 (the No Action alternative), so the same amount of groundwater and surface water used would not change for broodstock holding, egg incubation, juvenile rearing, and juvenile acclimation. There would also be no change in the amount of surface water used and flowing between the hatchery facilities' water intake and discharge structures.

Similarly, there would be no expected change in water quality relative to Alternative 1 as a result of changes in the discharge of ammonia, nutrients (e.g., nitrogen), biological oxygen demand, pH, suspended solids levels, antibiotics, fungicides, disinfectants, steroid hormones, pathogens, anesthetics, pesticides, and herbicides into the Elwha River, Hurd Creek, Sol Duc River, or the Puget Sound from Elwha River hatchery programs. Consequently, there would be no change in the contribution of hatcheries to water quality in any 303(d) listed segments of the analysis area relative to Alternative 1.

All of the water intake and discharge structures are located well outside of the Park and would not impair the Park.

Riparian Vegetation

Restoration of the Elwha River ecosystem and fisheries will eventually result in more fishing opportunities. Similar to impacts to soils, riparian vegetation can be impacted from angler access as well as physical disruption of streambed material by wading or boat use (motorboats are prohibited on the Elwha River within the Park). Currently, the only fishery occurring on the Elwha River is a Tribal steelhead fishery on non-native hatchery-origin steelhead (e.g., Chambers Creek) in the lower 5 miles of the Elwha River. The Elwha River and its tributaries within the Park are closed to fishing from 2012 to 2017. NPS anticipates that fishing within the Park will commence again at the end of the recolonization phase. However, assuming there is overlap with fishing and the recolonization phase, because there has been subsistence and recreational fishing in the Elwha River Basin prior to the fishing moratorium, fishery access points, roads, and boat launches are present throughout the analysis area. Use of fishery access points, roads, or boat launches are already present within the Park and will not result in impairment to Park resources, as these areas have already been affected.

In conclusion, as guided by this analysis, good science and scholarship, advice from subject matter experts and others who have relevant knowledge and experience, and the results of public involvement activities, not only for the NMFS EA process, but also in generating the three EISs analyzing the impacts of the Elwha River Restoration Project, it is the Superintendent's professional judgment that there will be no impairment of Park resources and values from implementation of the Selected Alternative.