National Marine Fisheries Service ESA Section 10(a)(1)(A) Permit for Take of Endangered/Threatened Species

Permit Number: 18030

Permit Type: Scientific Research/Enhancement

Program Name: Operation, monitoring, and evaluation of the Imnaha River spring/summer

Chinook salmon hatchery program in northeast Oregon and ongoing monitoring of natural populations of salmon and steelhead in the Imnaha

River basin.

Expiration Date: December 31, 2027

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Authorization

The Oregon Department of Fish and Wildlife (ODFW), U.S. Bureau of Indian Affairs (BIA), and U.S. Fish and Wildlife Service (USFWS), referred to as the Permit Holders, are hereby authorized to take threatened Snake River spring/summer Chinook salmon (*Oncorhynchus tshawytscha*) and Snake River Basin steelhead (*O. mykiss*) for artificial propagation and enhancement purposes. The activities are described in detail in the application submitted by the ODFW (ODFW 2011; ODFW and NPT 2015).

The program is funded primarily by the USFWS through the Lower Snake River Compensation Plan (LSRCP) which was approved by the Water Resources Development Act of 1976, (Public Law 94-587, Section 102, 94th Congress) to mitigate losses caused by the construction and operation of the four lower Snake River dams and navigation lock projects. LSRCP funds are programmed for Operations and Maintenance needs at related/associated facilities, and numerous Research, Monitoring, and Evaluation activities, as identified in approved annual statements of work.

The Bonneville Power Administration (BPA) also funds some components of the program under the Pacific Northwest Power Planning and Conservation Act of 1980, 16 USC § 839 et seq. (Northwest Power Act), which directs BPA to protect, mitigate, and enhance fish and wildlife and their habitat affected by the development, operation, and management of federal hydroelectric facilities on the Columbia River and its tributaries. BPA provides funding to the Nez Perce Tribe (NPT) and ODFW directly to assist with spawning ground surveys and to monitor life stage specific performance measures.

The program operators or co-managers are ODFW and the NPT. These activities are subject to the provisions of Section 10(a)(1)(A) of the Endangered Species Act (ESA) of 1973 (ESA) (16 U.S.C. 1531 *et seq.*), the National Marine Fisheries Service (NMFS) regulations governing ESA-listed species permits (50 CFR Part 222-226), and the conditions hereinafter set forth. The Hatchery and Genetics Management Plan (HGMP) describing the action was developed jointly by ODFW and the NPT (ODFW 2011; ODFW and NPT 2015).

Permit Description

The Permit Holders and their agents are authorized to take adult and juvenile, threatened Snake River spring/summer Chinook salmon to enhance the propagation and survival of the species. In addition, the Permit Holder(s) and their agents are authorized to take adult and juvenile threatened Snake River Basin steelhead (*O. mykiss*) for monitoring potential effects of the Chinook salmon program on natural-origin steelhead. Many of the actions included in this permit were originally included in research programs managed by ODFW, that were previously authorized under ESA section 4(d) (File # 16680), and by NPT currently authorized under section 10(a)(1)(A) (File #1134-6R).

As a key component of the program management, the HGMP submitted for consideration under section 10(a)(1)(A) of the ESA includes management of an integrated population using an abundance-based sliding scale that guides adult disposition at the Imnaha weir. It allows a proportion of hatchery-origin fish to escape upstream and spawn naturally based on returns of natural-origin fish to the basin. It also specifies the proportion of natural-origin fish to be incorporated into hatchery broodstock. Both portions of the scale (broodstock use and escapement) are designed to guide hatchery genetic influence within the population, while balancing the demographic risk of extinction.

The USFWS through the LSRCP replaced the existing Imnaha River weir during the fall of 2015. The new weir will be operational for broodstock collection in 2016 and will allow safe installation, broodstock collection, and adult management across the run, which were primary limitations of the previous weir. These limitations had been partially responsible for the inability to manage to the sliding scale standards. In addition to meeting natural-origin broodstock goals,

the sliding scale is designed to manage the total proportion of hatchery-origin fish above the weir (Farman 2013). Estimates of natural-origin run size based on preseason and in-season information will involve considerable uncertainty annually, and may involve in-season adjustments. The complexities of weir operations (especially during the first few years of operation) may also involve operating according to the best information available at the time, though it may not be perfect. Therefore, annual management of the broodstock composition and proportions of hatchery-origin fish above the weir may exceed or not meet specific targets with respect to the sliding scale ratios. However, on average, NMFS expects the program to be managed according to the sliding scale described in the HGMP and outlined in conditions below.

This Snake River spring/summer Chinook salmon hatchery program will be operated continuously from the date of this permit through December 31, 2027; however, the coverage provided by this permit is contingent on compliance with the management commitments provided in the HGMP, as well as the provisions in the Take Description and Levels, Take Limits, Special Conditions, Permit Reporting and Reauthorization Requirements, and General Conditions described below.

Description of Proposed Action

The goal of the Imnaha River spring/summer Chinook salmon hatchery program is to restore a viable natural population of spring Chinook salmon in the Imnaha River, reestablish sport and tribal fisheries, and maximize beneficial uses of fish returning to the basin. Artificial production of Snake River spring/summer Chinook salmon occurs through a single program managed and monitored using multiple sites and facilities: (1) The Lookingglass Fish Hatchery; (2) the Imnaha River Adult Collection and Acclimation Facility; (3) the Imnaha River weir; (4) Imnaha River screw traps; and (5) at multiple sampling locations throughout the basin that vary annually to monitor adult returns and juvenile abundance. Once the Northeast Oregon Hatchery facility proposed on the Lostine River is constructed, adult spawning and juvenile rearing may take place at that facility. Activities occurring for the Imnaha River spring/summer Chinook program occurring at these facilities are covered under this permit. Program operations, including broodstock collection, fish transfers between facilities, monitoring, and acclimation are coordinated through the LSRCP and between the ODFW and the Nez Perce Tribal staff.

All adult spring/summer Chinook salmon needed for hatchery broodstock are collected at the Imnaha River weir. Hatchery production is up to 490,000 juveniles annually, which are released as smolts either directly into the upper Imnaha watershed or from an acclimation facility adjacent to the Imnaha River. A key component of the program is also the implementation of a sliding scale, which manages the proportions of hatchery-origin fish in the wild as well as in the broodstock in the Imnaha River. The Imnaha River spring/summer Chinook salmon hatchery program was designed to return 3,210 adult spring/summer Chinook salmon back to the Imnaha River above Ice Harbor Dam (project area) after a harvest of 12,840. Lookingglass Fish Hatchery and the Imnaha acclimation/weir and trapping facilities are owned by the USFWS and operated by the ODFW with assistance from the NPT.

This permit covers several activities related to the production, monitoring, and evaluation of the Imnaha River spring/summer Chinook salmon hatchery program as well as status monitoring of the associated natural population. These activities include:

- the collection and sampling of adult natural and hatchery-origin spring/summer Chinook salmon trapped at the Imnaha weir
- closely managing natural and hatchery-origin fish escapement in the natural spawning population above the weir
- closely managing natural and hatchery-origin fish composition in the broodstock as defined in the sliding scale
- collection and transport of natural and hatchery-origin adults to Lookingglass Hatchery for spawning and transport of hatchery-origin adults (and jacks) to recycle through fishery or to outplant in Big Sheep/Lick Creek (no fisheries are included in this permit; outplanting of hatchery-origin fish is addressed below)
- all sampling, tagging, and monitoring of fish reared as part of the program
- incubation, rearing, marking, transport, and release of juveniles
- research, monitoring, and evaluation (RM&E) activities associated with the Imnaha River spring/summer Chinook Program and with assessing natural population status and trends

RM&E activities include use of a weir, screw traps, beach seines, hand nets, and electroshockers. Fish may be anesthetized, tagged, measured, and biological samples taken (such as scales and fin clips) prior to release. Both juvenile and adult fish may also be observed during spawning ground and snorkel surveys. A description of the research actions, methods, and locations is included in the description of research programs managed by the ODFW that were previously authorized under ESA section 4(d) (File # 16680) and the NPT currently authorized under section 10(a)(1)(A) (File #1134-6R). Spawning surveys will also be conducted in the Imnaha River to collect information on spawner abundance and natural/hatchery composition in nature.

Take Description and Levels

This permit authorizes the Permit Holder(s), program operators, and their agents to take ESA-listed species on an annual basis as described in the HGMPs submitted by the operators and further detailed below and further detailed below

A. Take Limits

There are three general categories for direct take that is authorized by this permit:

- (1) Direct take of Snake River spring/summer Chinook salmon associated with fish culture activities, including: adult broodstock and juvenile collection, capture, handling, transport, and lethal spawning; lethal health exam sampling; tagging and biological sampling; and release of juveniles.
- (2) Direct take of Snake River spring/summer Chinook salmon associated with RM&E activities, including tagging and biological sampling, and monitoring of escapement of adult hatchery-origin spring Chinook salmon to natural spawning areas.

(3) Direct take of Snake River steelhead which are sampled concurrently during spring/summer Chinook salmon RM&E activities.

The maximum take levels by various life stages, origin (natural or hatchery), facility, and activities associated with culture of Snake River spring/summer Chinook salmon are shown in Table 1. Take levels for collection of hatchery broodstock and for the escapement of adult fish to natural spawning areas will be consistent with the sliding scale identified in Table 1 (Section 1.11) in the HGMP. The take level for hatchery-production of spring Chinook salmon may vary annually based the number of fish in the hatchery facility in any year based on the availability of broodstock and juvenile survival for hatchery production. The hatchery program release goal is 490,000 fish annually.

The maximum take levels for concurrent RM&E of Snake River spring/summer Chinook and Snake River steelhead encountered, captured, handled, and tagged during RM&E activities are shown in Tables 2 and 3. If the take levels are exceeded in any given year, NMFS must be notified according to the reporting requirements in Section C. of this permit, and will evaluate program modification or the need to reinitiate consultation at that time. The maximum take levels for concurrent RM&E and direct take of Snake River spring/summer Chinook and Snake River steelhead encountered, captured, handled, and tagged during RM&E activities are shown in Tables 2 and 3. If the take levels are exceeded in any given year, NMFS must be notified according to the reporting requirements in Section C. of this permit, and will evaluate program modification or the need to reinitiate consultation at that time.

In addition, spawning ground surveys will be conducted annually to determine spawner abundance, spawning density, adult distribution and proportion of hatchery-origin fish in the wild, which is critical to monitoring hatchery program compliance with this permit and performance. Because all fish encountered or handled during spawning ground surveys will be dead or moribund, NMFS does not apply a maximum level of fish that may be handled during those surveys. The Permit Holder(s) may collect and possess tissue samples from unlimited salmon and steelhead carcasses collected during these surveys.

For the purposes of this permit, "adipose fin-clipped" refers to all fish that have their adipose fin intentionally removed for the identification of fish produced in a hatchery setting. "Adipose fin-clipped" also refers to all fish destined to have their adipose fin removed at a later date as part of the program prior to the action of clipping. "Adipose fin-intact" salmon may include both natural-origin fish and hatchery-origin fish that have not been clipped.

Table 1. Permissible direct take of listed Snake River spring/summer Chinook salmon for fish culture purposes for the Imnaha River program. NMFS must be notified within two days if handling, tagging, or numbers killed are exceeded.

| Imnaha Hatchery-related Chinook Take | | | | | | |
|---|---|---|----------------------------------|--|--|--|
| Species and Lifestage | Take Activity | Capture Method and Location | Total Number Handled Annually | Number Handled that are Marked/Tagged Annually (1% Trap Mortalities) | Total Number Killed or Removed Annually | |
| SR spring/summer Chinook salmon Adult over 63 cm - Adipose fin intact | Capture, handle, tag, tissue sample. Remove for transport, use for broodstock, or release live animal (pass above weir) | Imnaha River Adult Weir | 3,000 | Up to 3,000* (passed live with fin-clip or operculum punch) | Up to 342* broodstock Up to 18 adult trap mortalities | |
| SR spring/summer Chinook salmon Non-juvenile ≤ 63 cm - Adipose fin intact | Capture, handle, tag, tissue sample. Remove for transport, use for broodstock, or release live animal (pass above weir) | Imnaha River Adult Weir | 400 | Up to 400 (passed live with fin-clip or operculum punch) | Up to 17 broodstock Up to 2 trap mortalities | |
| SR spring/summer Chinook salmon Adult over 63 cm - Adipose fin- clipped | Capture, handle, tag, tissue sample. Remove for transport, use for broodstock, remove for adult management or release live animal (pass above weir) | Imnaha River Adult Weir | 4,000* | Up to 600* (passed live with fin-clip or operculum punch) | Up to 275* broodstock Up to 100% of total handled may be removed, killed, or transported for adult management as described in the HGMP | |
| SR spring/summer Chinook salmon Non-juvenile ≤ 63 cm - Adipose fin-clipped | Capture, handle, tag, tissue sample. Remove for transport, use for broodstock, remove for adult management or release live animal (pass above weir) | Imnaha River Adult Weir | 4,500 | Up to 30 (passed live with fin-clip or operculum punch) | Up to 17 broodstock Up to 100% of remainder may be removed or killed for adult management as described in the HGMP | |
| SR spring/summer Chinook salmon Juvenile and egg - Adipose fin- clipped (or intended) | Capture, handle, tag, tissue sample, and release live animal (within hatchery sampling and research use) | Lookingglass Hatchery or Northeast Oregon Hatchery | 585,550 | 585,550 | Up to 95,550 total rearing mortality (which may include sampling and research requirements related to program goals and | |

| | | | | | management) |
|---|--|---|-----|-----|-------------|
| SR spring/summer Chinook salmon Juvenile- Adipose fin-clipped (or intended) | Capture, sample, kill (Fish health examinations) | Lookingglass Hatchery or Northeast Oregon Hatchery | 250 | 250 | 250 |

^{*}The actual number taken annually will be subject to the sliding scale identified in Table 1 (Section 1.11) in the HGMP, and shall not exceed the totals of each origin identified there.

Table 2. Permissible direct take of Snake River spring/summer Chinook salmon for RM&E activities associated with the Imnaha River Chinook salmon program not directly related to fish culture. NMFS must be notified within two days if handling, tagging, or numbers killed are exceeded.

| Imnaha RM&E Chinook Take | | | | | | |
|---|--|---|---|---|---|--|
| Species and Lifestage | Take Activity | Capture Method and Location | Total Number Handled annually (0.5% handling mortalities) | Number of those handled that are marked/tagged annually (1% handling mortalities) | Total Number Killed or removed annually | |
| SR spring/summer Chinook salmon Juvenile - Adipose fin intact | Capture, handle, tag, tissue sample, and release live animal | Trapping operations that include screw traps, beach seines, cast nets, dip nets, and use of backpack electroshock equipment throughout the Imnaha River | 36,400 | 17,000 | Up to 347 | |
| SR spring/summer Chinook salmon Juvenile - Adipose fin- clipped (or intended) | Capture, handle, tag, tissue sample, and release live animal | Trapping operations that include screw traps, beach seines, cast nets, dip nets, and use of backpack electroshock equipment throughout Imnaha River | 76,000 | 20 | Up to 381 | |
| SR spring/summer Chinook salmon Non-juvenile - Adipose fin intact | Capture, handle, tag, tissue sample, and release live animal | Adult fall back at screw traps | 10 | (genetic fin-clip or operculum punch – release live) | Up to 2* | |
| SR spring/summer Chinook salmon Non-juvenile - Adipose fin-clipped | Capture, handle, tag, tissue sample, and release live animal | Adult fall back at screw traps | 20 | 20 | Up to 3 | |

^{*} In cases where total number killed is not likely to exceed one (1) mortality, NMFS rounds the total mortality up to two (2), so that operations are not halted completely at the first mortality.

Table 3. Permissible direct take of Snake River steelhead for RM&E activities associated with the Imnaha River spring/summer Chinook salmon program not directly related to fish culture. NMFS must be notified within two days if handling, tagging, or numbers killed are exceeded.

| Imnaha RM&E Steelhead Take | | | | | | |
|---|--|---|---|---|---|--|
| Species and Lifestage | Take Activity | Capture Method and Location | Total Number Handled annually (0.5% handling mortalities) | Number of those handled that are marked/tagged annually (1% handling mortalities) | Total Number Killed or removed annually | |
| SR steelhead Juvenile - Adipose fin intact | Capture, handle, tag, tissue sample, and release live animal | Trapping operations that include screw traps, beach seines, cast nets, dip nets, and use of backpack electroshock equipment throughout Imnaha River | 16,700 | 7,500 | Up to 160 | |
| SR steelhead Juvenile - Adipose fin-clipped | Capture, handle, tag, tissue sample, and release live animal | Trapping operations that include screw traps, beach seines, cast nets, dip nets, and use of backpack electroshock equipment throughout Imnaha River | 35,000 | 20 | Up to 176 | |
| SR steelhead Adult - Adipose fin intact | Capture, handle, tag, tissue sample, and release live animal (includes handling of adult fall backs on at the weir) | Imnaha River Adult Weir | 300 | 300 | Up to 3 | |
| SR steelhead Adult - Adipose fin intact | Capture, handle, tag, tissue sample, and release live animal | Adult fall back at screw traps | 5 | (genetic fin-clip or operculum punch – release live) | Up to 2* | |

^{*} In cases where total number killed is not likely to exceed one (1) mortality, NMFS rounds the total mortality up to two (2), so that operations are not halted completely at the first mortality.

A. Special Conditions

Annual Planning

- 1. The Permit Holder(s) must participate in a coordinated annual planning process to review the operation of and anticipated changes to the trapping and sampling program. The coordinated planning developed annually as part of LSRCP annual operating plans (AOP) will address:
 - a. Sampling protocols for each annual run that are designed to meet the goals identified in the sliding scale, permit conditions, and the production levels in the current version of the *U.S. v. Oregon* Management Agreement.
 - b. Annual requirements, collection, and distribution of Snake River spring/summer Chinook salmon taken for broodstock.
- 2. Coordination of data and sampling.
- 3. The Permit Holders will also coordinate during the adult run to review updated in-season run projections and revise weir management plans as necessary.
- 4. Once developed, annual plans will be shared with NMFS once completed.

Broodstock Collection (at Imnaha River trap)

- 5. The Permit Holders and/or their agents may collect Chinook salmon from the fish ladder and adult fish trap on Imnaha River, annually from approximately May 1 through October 1 provided that:
 - a. Proportions of hatchery- and natural-origin adults collected for broodstock is consistent with levels defined in the sliding scale, as measured by using post-season estimates, to confirm that in at least three of the previous five years the proportion of natural-origin Chinook salmon incorporated into the broodstock was consistent with the sliding scale. Data collection for this performance criterion will begin in 2016.
 - b. The post season estimate of proportions of hatchery-origin adults above the weir (total escaped and released), as measured by using post-season estimates, does not exceed the level defined in the sliding scale in at least three of the previous five years for the specified natural-origin returns. Data collection for this performance criterion will begin in 2016.
- 6. During operation of the weir and adult trap, the trap will be checked at least once every 24 hours. During weekdays, captured fish will be sorted daily.
 - a. Any captured fish will be either collected and held for transport or released at the time they are first handled.

- b. During weekend trapping for 2016 adult collections, if it is estimated that 10 or more natural-origin adults or 100 total adults will be present in the trap, they shall be sorted within 24-hours of capture.
- c. For 2017 and beyond, the co-managers will develop a plan for weekend sorting and passage to minimize or avoid trap crowding as well as passage delays of more than 24 hours. The plan will set daily trap capacity limits, and define trap operation schedules based on numbers of fish captured or held.
- d. If mortality exceeds the levels identified in Table 1, the co-managers will review daily trap capacity limits, and trap operation schedules, and proposed modifications if necessary.
- 7. The Permit Holders shall determine when river flow conditions or bull trout passage concerns limit the ability to check fish at the weir within 24 hours and transport or release fish according to the conditions above. If fish cannot be passed using normal protocols, free passage will be provided to prevent fish from being entrapped or delayed for long periods at the weir.
- 8. The Permit Holders and/or their agents may capture, handle, and remove spring/summer Chinook salmon from the river and handle steelhead as specified in the HGMP, in Tables 1 through 3 of this permit, and as described in the sliding scale identified in Table 1 (Section 1.11) in the HGMP.
- 9. The Permit Holders shall ensure that infrastructure and management are achieving adult management objectives as defined by the adult sliding scale (Table 1 in section 1.11 of the HGMP), and the conservation objectives identified in section 1.9 of the HGMP.
 - a. Broodstock collection will occur throughout the entire adult return, with the intent of spawning adults that represent the entire run.
- 10. If ESA-listed salmon and steelhead are anesthetized to avoid injuring or killing them during handling, the fish must be allowed to recover before being released. Fish may be handled without anesthetization if handling and sampling can be done without injuring them (e.g., if they are only counted), and they must remain at all times in or above the water in which they are to be released.
- 11. ESA-listed salmon and steelhead must be handled with extreme care and kept in water to the maximum extent possible during sampling and processing procedures and during handling and passage upstream. Adequate circulation (as identified by dissolved oxygen content) and replenishment of water in holding units is required. When a mix of species is captured, ESA-listed species must be processed first, including those passed upstream to spawn naturally.
- 12. The Permit Holders and\or their agents may capture, handle, measure, tag, and collect tissue samples (fin clips, opercular punches, scales, and blood) from live Snake River spring/summer Chinook salmon and Snake River Basin steelhead. Otoliths, head cartilage, or whole snouts may be taken from spring Chinook salmon and steelhead used

for hatchery broodstock, carcasses collected on the spawning grounds, and mortalities from weir or screw-trap operation. Tissue samples and/or scales collected during the activities authorized above may be collected and/or transferred to the IDFG, the ODFW, the NPT, the Columbia River Intertribal Fish Commission, NMFS laboratories, or state or Federal fish health laboratories for analysis and/or archiving. Tissues of collected animals are the responsibility of the Permit Holder(s) and remain so as long as they are useful for research purposes. Transfer of the tissues from the Permit Holder(s) to researchers other than those listed above requires written approval from the Branch Chief, Anadromous Production and Inland Fisheries Branch, Sustainable Fisheries Division, NMFS West Coast Region.

13. The ESA-listed salmon and steelhead used for research/enhancement activities may only be taken by the means, in the areas, and for the purposes set forth in the application and modification requests, as limited by the terms and conditions specified in this permit.

Fish Culture

- 14. Ensure that staff is trained and implement aversion measures identified in section 5.8 of the HGMP to minimize risk of catastrophic losses at the Lookingglass and Imnaha facilities.
- 15. Fish culture, including collection, transport, holding and spawning of broodstock, incubation of eggs, ponding and rearing (including acclimation where specified), fish health examinations, clipping (marking) and tagging and necessary transportation shall be as described in the HGMP and the AOP. NMFS recognizes the need for management flexibility, so minor deviations consistent with best management practices, conforming to the intent of the program, are consistent with effects already considered in this consultation, may be permitted upon request.
- 16. In addition to reporting required for exceeding overall take as described in the above tables, co-managers will notify NMFS within two working days of:
 - a. Any single event in which the handling of a minimum of 100 adults or 1,000 juveniles results in mortality that exceeds 10% of those handled.
 - b. Any single event not related to handling but resulting in the mortality of 100 juveniles or 10 adults, such as equipment failure, disease outbreaks, or other operational difficulties.

Juvenile Releases

17. The Permit Holders and/or their agents shall release juvenile Snake River spring/summer Chinook salmon consistent with the numbers, release stages, release locations, and marking described in Table 26 and sections 10.2 and 10.7 of the Imnaha spring/summer Chinook HGMP. Releases may begin as early as March 1 and last through April 30 annually. Juvenile release levels will be dependent on obtaining adequate returns of broodstock, maintaining adequate facility rearing space, and funding. NMFS recognizes the need for management flexibility, so minor annual deviations consistent with best

management practices, conforming to the intent of the program, and are consistent with effects already considered in this consultation, may be permitted upon request. However:

- a. Co-managers will collect broodstock annually with the intent to produce 490,000 smolts for release, as identified in the program HGMP and *U.S. v. Oregon* Production Table B1 (*U.S. v. Oregon* 2009).
- b. Although the annual program goal is a release of 490,000 smolts annually, to allow for annual survival variability, production above program targets may be released provided that:
 - i. Fish will not be released at locations or at life stages other than those described in the HGMP without the express approval of NMFS. Alternative locations will be approved only if the impact is deemed to not exceed that determined in the effects analysis in the biological opinion.
 - ii. The smolt number released will not exceed 110% of the proposed release levels in any year.
 - iii. Up to 95,000 eggs or fry may be outplanted in Lick Creek annually to adjust for smolt release production targets.
- c. Annual operational adjustments, to maintain consistency with the proposed production levels identified in the HGMP and *U.S. v. Oregon* Production Table B1, should be addressed during the development of the AOP.

Adult Releases

- 18. Hatchery-origin adults determined to be in excess of needs due to adult management guidelines may be outplanted under the following conditions:
 - a. The permit holder(s) will coordinate annually through the AOP to obtain comanager agreement, and share any co-manager agreements for outplant disposition of adults with NMFS prior to collection or transport of adults to outplant areas.
 - b. All outplanted fish will be marked or tagged in a way that they can be identified as "outplants" and differentiated from any other hatchery-origin fish in the area to facilitate accurate monitoring.
 - c. Outplanting may occur only in the Big Sheep Creek watershed. Outplanting will be limited to 300 adults annually. Additional numbers, streams, and stream reaches may be approved by NMFS upon request.
 - d. The Permit Holder(s) will provide monitoring of Big Sheep Creek or any future additional areas receiving adult outplants. Monitoring will include:
 - i. The date, number of fish, and location (GPS coordinates or RM) of each outplanting event.
 - ii. Redd counts and carcass surveys that can be used to estimate total population as well as outplant contribution to that population.
 - iii. Estimates of the proportion of outplanted fish that remain in Big Sheep Creek or other approved areas, and of the proportion or outplanted fish that return to the Imnaha River weir, or are recovered in monitoring spawning areas.
 - e. Monitoring Big Sheep Creek or other outplant areas should be reported in the annual Imnaha River report.

Facility Operations

- 19. Water withdrawals at all facilities shall be via structures that meet or exceed NMFS water intake screening criteria.
 - a. For facilities not meeting current screening criteria (Imnaha and Lookingglass Hatchery intakes), a review will be performed before the end of 2016 to determine the criteria that are out of compliance.
 - b. Before the end of 2016, co-managers will coordinate with NMFS environmental services branch to develop a plan to bring the Imnaha satellite facility and Lookingglass Hatchery into compliance with current passage and screening criteria. The plan will include a schedule for securing funding and an implementation timeline.

20. Water withdrawals shall not exceed levels permitted by the Water Use Permits issued to each of the acclimation facilities.

Research, Monitoring, and Evaluation (RM&E)

- 21. The Permit Holder(s) shall continue existing evaluations identified in section 11.1.1 for the duration of the permitted program. These research programs evaluate the abundance, productivity, spatial structure, and diversity of Snake River spring/summer Chinook salmon and steelhead.
- 22. The Permit Holder(s) shall apply the conservation measures identified in section 11.2 of the HGMP to minimize effects of monitoring and evaluation activities on listed anadromous salmonids.
- 23. The Permit Holder(s) shall follow the performance standards identified in section 1.9 of the HGMP.
- 24. Smolt screw traps will only be operated when staff and funding are available to actively check traps and work through fish and avoid overcrowding the trap box.
 - a. Smolt trap operators downstream of the release site will maintain contact with hatchery staff to remain informed on the type and timing of smolt releases. Prior to and during releases, trap operators will consider appropriate modifications to minimize excessive trapping of smolts.
 - b. Screw traps will be monitored and checked with additional frequency if operated during hatchery smolt releases (including night checks when needed). Sub samples will be taken to confirm the risk of overcrowding the trap box is minimal.
 - c. If monitoring or sub sampling indicates that fish are being captured at a rate higher than the trap box can handle, one or more of the following measures will be implemented:
 - i. Decrease trap efficiency through trap modifications (pulling the cone, using deflectors, moving out of thalweg, etc.), and increase the frequency of trap checks consistent with the new trap efficiency to avoid overcrowding the trap box.
 - ii. Stop the trap from operating during smolt releases until sub sampling at the trap suggests that the number of smolts captured has decreased to a level that would not lead to overcrowding the trap box with the combination of trap efficiency and trap check frequency that will be implemented.
 - d. If 10% of the total annual take (in any category) occurs on a single day of operation, NMFS will be notified, and trap operations will cease until NMFS and all co-managers agree that new protocols are sufficient to avoid the risk of another mortality event of similar size.

Recognizing the need for flexibility and the ability to respond to new developments, modifications to specific RM&E measures may be proposed during the term of the permit. Changes to the measures listed above require NMFS concurrence to ensure they are consistent with the effects analysis in the biological opinion.

B. Permit Reporting and Reauthorization Requirements

NMFS contact for all reports and notifications:

Brett Farman Sustainable Fisheries Division National Marine Fisheries Service, West Coast Region 1201 N.E. Lloyd Boulevard, Suite 1100 Portland, OR 97232 (503) 231-6222 (503) 872-2737 (fax)

- 1. If the authorized level of take, including mortalities, is exceeded, or if circumstances indicate that such an event is imminent, the Permit Holder(s) must notify the above contact as soon as possible, but no later than two days after the authorized level of take is exceeded. The Permit Holder(s) must then submit a written report to the above contact describing the circumstances of the unauthorized take, within two weeks of take exceedance. Pending review of these circumstances, NMFS may suspend program activities or amend this permit in order to allow activities to continue.
- 2. The Permit Holder(s) must submit to NMFS for approval, in writing, changes in any aspect of program implementation and operations, including broodstock collection protocols or numbers, juvenile release numbers, and marking, that potentially would result in increased take or the manner or effect of take of ESA-listed species.
- 3. The Permit Holder(s) must submit, upon request, the identities and qualifications of all personnel designated to act under the authority of this permit.
- 4. NMFS must be notified within 48 hours of any take of an ESA-listed species not authorized under this permit. The level of take, the circumstances leading to the take, and any other relevant information, must be provided to NMFS, in writing, within one week of knowledge that the take occurred.
- 5. For the duration of this permit, broodstock collection, hatchery fish releases, and RM&E activities are contingent upon submission of the AOP to the funding agency by March 31st of each year and its availability for NMFS review.
 - a. Reporting on each preceding year's annual production, and RM&E will occur based on the funding agency reporting timelines.
 - b. Comprehensive multi-year analysis will occur on the LSRCP review timeline (typically every five years), and may be submitted to NMFS directly, though they are typically already available at the LSRCP (http://www.fws.gov/lsnakecomplan/)

and/or Bonneville Power Administration websites (http://www.bpa.gov/Pages/home.aspx).

- c. An annual summary or report to BPA or LSRCP of program operations and/or multi-year analysis must include an assessment of the compliance with each of the provisions included in this permit. The annual summary can be provided to NMFS in a tabular or electronic spreadsheet format. Information and analysis requirements include, but are not limited to:
 - i. Annual escapement estimates and estimated proportion of hatchery-origin spring/summer Chinook salmon spawning in nature above the weir, below the weir, and the total for the Imnaha River Basin;
 - ii. A summary of all hatchery- and natural-origin spring/summer Chinook salmon encountered at the Imnaha River adult trap, and their disposition (passed, retained for broodstock, culled, or outplanted) as well the number of any knows strays and their disposition;
 - iii. Redd counts for Snake River spring/summer Chinook salmon in natural spawning areas both above and below the weir;
 - iv. Summary of outplant monitoring, as described is section B.17 and 18 above;
 - v. Carcass recovery data, including numbers, sex ratios, fish stock origin, mark observations, tributary location, and age class;
 - vi. Number and species of any ESA-listed Chinook salmon and steelhead captured, anesthetized, tagged, and any mortalities observed annually during RM&E activities related to this permit;
 - vii. Unintentional injuries or mortalities of listed Chinook salmon and steelhead that result from all operational activities to include the cause, if known, and disposition;
 - viii. Any other information deemed necessary by the applicants for assessing the program such as results from biological sampling, population trends, disease trends, etc.;
 - ix. A description of any measures, in addition to those listed in 11.2 of the HGMP, taken to minimize impacts on ESA-listed salmon and steelhead both in the hatchery and during RM&E activities, and the effectiveness of those measures, the disposition of ESA-listed salmon and steelhead in the event of mortality, and a brief narrative of the circumstances surrounding injuries or mortalities of ESA-listed salmon and steelhead;
 - x. Steps that the Permit Holder(s) took to coordinate adult trap operation actions, associated data collection and reporting activities, and responses to

any problems arising in the hatchery program, with any appropriate resource managers.

C. General Conditions

- 1. The Permit Holder(s) must ensure that all ESA-listed species are handled carefully. Should NMFS determine that a procedure provided for under this permit is no longer acceptable, it will so inform the Permit Holder(s).
- 2. The Permit Holder(s), in implementing the hatchery program authorized by this Permit, has/have accepted the terms and conditions of this permit and must ensure compliance by itself and its agents with the provisions of this permit, the applicable regulations, and the ESA.
- 3. The Permit Holder(s) is/are responsible for the actions of any individual operating under the authority of this permit. Such actions include operation of the adult trap for broodstock collection and capturing, handling, releasing, maintaining, and caring for any ESA-listed species authorized to be taken by this permit.
- 4. The Permit Holder(s) and or their agents must possess a copy of this permit when conducting the activities for which a take of ESA-listed species or other exception to ESA prohibitions is authorized herein.
- 5. The Permit Holder(s) may not transfer or assign this permit without NMFS's approval to any other person(s), as person is defined in Section 3(12) of the ESA. This permit ceases to be in force or effective if transferred or assigned to any other person without prior authorization from NMFS.
- 6. The Permit Holder(s) must obtain any other Federal, state, and local permits/authorizations necessary for the conduct of the activities provided for in this permit.
- 7. Permit Holder(s) and/or their agents carrying out any of the permit conditions or weir program actions requiring Federal or state licenses to practice their profession must be duly licensed under the appropriate law.
- 8. The Permit Holder(s) must coordinate with other co-managers and/or researchers to minimize duplication and/or adverse cumulative effects occur as a result of the Permit Holder(s)' activities.
- 9. The Permit Holder(s) and/or their agents must allow any NMFS employee(s) or any other person(s) designated by NMFS to accompany field personnel during the activities provided for in this permit. The Permit Holder(s) must allow such person(s) to inspect the records and facilities of the Permit Holder(s) and their agents if such records and facilities pertain to ESA-listed species covered by this permit or NMFS's responsibilities under the ESA.

- 10. Under the terms of the regulations, a violation of any of the terms and conditions of this permit will subject the Permit Holder(s), and/or any individual who is operating under the authority of this permit, to penalties as provided for in the ESA.
- 11. The Permit Holder is responsible for maintaining biological samples collected from ESA-listed species as long as they are useful for research purposes. The terms and conditions concerning any samples collected under this authorization remain in effect as long as the Permit Holder(s) have authority and responsibility for the material taken. The Permit Holder(s) may not transfer biological samples to anyone not listed in the application without obtaining prior written approval from NMFS. Any such transfer will be subject to such conditions as NMFS deems appropriate.
- 12. NMFS may amend the provisions of this permit after reasonable notice to the Permit Holder(s).
- 13. 50 CFR Section 222.23(d)(8) allows NMFS to charge a reasonable fee to cover the costs of issuing permits under the ESA. NMFS has waived the fee for this permit.
- 14. NMFS may revoke this permit if the activities are not carried out in accordance with the description provided in the HGMP, conditions of the permit or the ESA and its regulations, or if NMFS otherwise determines that the findings made under section 10(d) of the ESA no longer hold.
- 15. Any falsification of annual reports or records pertaining to this permit is a violation of this permit.

D. Penalties and Permit Sanctions

- 1. Any person who violates any provision of this permit is subject to civil and criminal penalties, permit sanctions, and forfeiture as authorized under the ESA and 15 CFR Part 904 [Civil Procedures].
- 2. All permits are subject to suspension, revocation, modification, and denial in accordance with the provisions of subpart D [Permit Sanctions and Denials] of 15 CFR Part 904.

E. Signatures

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9/12/2016 Date

Regional Administrator
NMFS West Coast Region

Bruce Eddy

East Region Manager

Oregon Department of Fish and Wildlife

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Michael Morigeau

Acting Superintendent Bureau of Indian Affairs 113/1

Date

LSRCP Program Manager
United States Fish and Wildlife Service

9/31/3016 Date

F. References

- Farman, B. 2013. Email to Becky Johnson re: Imnaha scale and escapement. December 24, 2013. 2p.
- ODFW. 2011. Lower Snake Compensation Plan (LSRCP): Imnaha Spring/Summer Chinook Salmon HGMP. May 2, 2011. 108p.
- ODFW, and NPT. 2015. Addendum to Imnaha Spring Chinook HGMP. March 2015. 24p.
- U.S. v. Oregon. 2009. 2008-2017 U.S. v. Oregon Management Agreement (modified January 23, 2009). Portland, Oregon.