

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

Permit Number: 18035

Permit Type: Scientific Research/Enhancement

Program Name: Operation, monitoring, and evaluation of the Lookingglass Creek spring/summer Chinook salmon program in northeast Oregon and ongoing monitoring of natural populations of salmon and steelhead in the Grande Ronde River basin.

Expiration Date: December 31, 2027

Permit Holders:

Oregon Department of Fish & Wildlife
107 20th Street
La Grande, OR 97850

Bureau of Indian Affairs
on behalf of the Umatilla Tribe
Umatilla Agency
P.O. Box 520
Pendleton, OR 97801-0520

U.S. Fish and Wildlife Service
1387 South Vinnell Way
Suite 343
Boise, ID 83709

Bureau of Indian Affairs
Northern Idaho Agency
on behalf of the Nez Perce Tribe
P.O. Box 365
Lapwai, ID 83540

Contacts:

Bruce Eddy, East Region
Manager
Phone: 541-962-1825
Fax: 541-963-6670

Michael Jackson,
Superintendent
Phone: 541-278-3786
Fax: 541-278-3791

Julie Collins
LSRCP Program Manager
Phone: 208-378-5668
Fax: 208-378-5304

Michael Morigeau
Acting Superintendent
Phone: 208-843-9410
Fax: 208-843-9440

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 scientific research/enhancement purposes.

The program is primarily funded 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) provides funding under the Pacific Northwest Power Planning and Conservation Act of 1980, 16 U.S.C. §§ 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 for the operation of the Catherine Creek adult weir, which is a backup broodstock source for the program, and also funds ODFW to conduct some spawning and rearing activities at Lookingglass Hatchery. BPA also funds certain M&E activities, including spawning ground surveys and life stage monitoring (i.e., operation of rotary screw traps).

The program operators or co-managers are ODFW and the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). The activities are described in detail in the application submitted by the ODFW, and are subject to the provisions of Section 10(a)(1)(A) of the Endangered Species Act 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 CTUIR (ODFW 2011).

Permit Description

The Permit Holders and their agents is/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 Holders 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).

The HGMP submitted for consideration under section 10(a)(1)(A) of the ESA includes an adult management framework that allows fish from the hatchery program to escape upstream and spawn naturally based on the escapement of natural-origin fish. It also specifies how to incorporate natural-origin fish into the hatchery broodstock. 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 run forecasting 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 may exceed or not meet program targets. However, on average, NMFS expects the program to be managed according to the guidance for adult management 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 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 Lookingglass Creek spring/summer Chinook salmon hatchery program goal is to reintroduce and reestablish a viable population of spring Chinook salmon to Lookingglass Creek, develop an endemic broodstock, support broodstock needs, support sport and tribal fisheries, minimize program impacts on indigenous fish species, and maximize the beneficial uses of fish returning to the basin. Through 2008-2017 *U.S. v Oregon*, an agreement was made between the four Columbia River Treaty Tribes, States, and Federal agencies to release 250,000 yearlings at the Lookingglass Fish Hatchery (*U.S. v. Oregon* 2009).

Artificial production of Snake River spring/summer Chinook salmon occurs through a single program managed and monitored using sites and facilities that are associated with Lookingglass Fish Hatchery and include: (1) The Lookingglass Fish Hatchery; (2) the Lookingglass Creek weir and trap; (3) the Catherine Creek weir and trap; (4) the Lookingglass Creek screw trap; and (5) at multiple sampling locations throughout Lookingglass Creek and tributaries that vary annually to monitor adult returns and juvenile abundance. Activities occurring for the Lookingglass Creek spring/summer Chinook program occurring at these facilities are covered under this permit. The program is highly coordinated through the LSRCP with ODFW and CTUIR staff in operations, including broodstock collection, fish transfers between facilities, monitoring, and acclimation.

All adult spring/summer Chinook salmon needed for the hatchery broodstock are collected at the Lookingglass Creek weir as well as Catherine Creek adult weir when needed. Hatchery production may reach 250,000 juveniles annually, which are released as yearlings in Lookingglass Creek. The Lookingglass Creek spring/summer Chinook salmon hatchery program does not have a specific adult return goal, but adult returns will be part of the total 5,720 total adult spring/summer Chinook salmon above Ice Harbor return goal for the Grande Ronde basin.

This permit covers several activities related to the production, monitoring, and evaluation of the Lookingglass Creek spring/summer Chinook salmon hatchery program as well as status monitoring of the associated natural population including the Lookingglass Creek, as well as the Minam and Wenaha Rivers. These activities include.

- Collection and sampling of adult spring/summer Chinook salmon for broodstock.
- Closely monitoring the total fish escapement in the natural spawning population.
- Transport of adults from Catherine Creek to Lookingglass Hatchery for spawning.
- Holding of adults at Lookingglass Hatchery for spawning.
- Integrating natural-origin fish into the broodstock as defined in section 1.11 of the HGMP.
- Incubation, rearing, marking, and release of juveniles.
- All sampling, tagging, and monitoring of fish reared as part of the program.
- Research, monitoring, and evaluation (RM&E) activities associated with the Lookingglass Creek spring/summer Chinook salmon hatchery program and with assessing natural population status and trends monitoring.

RM&E activities include use of 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 ODFW that were previously authorized under ESA section 4(d) (File # 16680). Spawning surveys will also be conducted in Lookingglass Creek to collect information on spawner abundance and composition in the wild.

In addition the program includes monitoring of natural-origin populations within the Grande Ronde basin in the Minam and Wenaha Rivers that serve as reference streams for comparison of performance for all Chinook salmon hatchery programs throughout the basin. As with RM&E activities listed above, these actions were originally included in research programs managed by ODFW that were authorized under ESA section 4(d) (File # 16680). Some Wenaha river tributaries originate in Washington, and flow into Oregon. As a result, research in the Wenaha River basin will be carried out by both ODFW and WDFW staff; however, WDFW activities are covered separately by their Tucannon River spring/summer Chinook salmon program (Permit #18024). A screw trap is located on the Minam River. Both Minam and Wenaha Rivers will have some juvenile monitoring, as well as annual spawning ground surveys. This permit covers monitoring in the Minam River as well as the Oregon portions of the Wenaha River.

Take Description and Levels

This permit authorizes the Permit Holders, program operators, and their agents for annual take of ESA-listed species 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 guided by the description and sliding scales identified in Table 3 (Section 1.11) in the HGMP. The take level from the release of hatchery-origin spring Chinook salmon will also vary annually based on 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 250,000 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 through 7. If the take levels in 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 holders may collect and possess tissue samples from unlimited salmon and steelhead carcasses collected during these surveys.

For purposes of this permit, “Adipose fin-clipped” refers to all fish that have their adipose fin intentionally removed for 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 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 Lookingglass Creek program. NMFS must be notified within two days if handling, tagging, or numbers killed are exceeded.

Lookingglass Creek Hatchery-related Chinook Take					
Species and Lifestage	Take Activity	Capture Method and Location	Total Number Handled annually	Number of those handled that are marked/tagged annually (1% trap mortalities)	Total Number Killed or removed annually
SR spring/summer Chinook salmon Adult over 60 cm - Adipose fin intact	Capture, handle, tag, tissue sample. Remove for transport, use for broodstock, or release live animal (pass above weir)	Lookingglass Creek Adult Weir	500	Up to 453* (passed live with fin-clip or operculum punch)	Up to 170* broodstock Up to 5 adult trap mortalities
SR spring/summer Chinook salmon Non-juvenile under 60 cm - Adipose fin intact	Capture, handle, tag, tissue sample. Remove for transport, use for broodstock, remove for adult management or release live animal (pass above weir)	Catherine Creek Adult Weir	50	50 (passed live with fin-clip or operculum punch)	0 broodstock Up to 2 trap mortalities
SR spring/summer Chinook salmon Adult over 60 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)	Lookingglass Creek Adult Weir	2,000	Up to up to 2,000 (passed live with fin-clip or operculum punch)	Up to 170* broodstock Up to 100% of total handled may be removed for adult management.
SR spring/summer Chinook salmon Non-juvenile under 60 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)	Lookingglass Creek Adult Weir	800	0 (passed live with fin-clip or operculum punch)	Up to 9 broodstock Up to 100% of remainder may be removed or killed for adult management.
SR spring/summer Chinook salmon Adult over 60 cm - Adipose fin-clipped	Capture, handle, tissue sample, remove for transport to Lookingglass Hatchery	Catherine Creek Adult Weir	To be Determined by NMFS and co-manager agreement. Not more than 170	None passed. All collected and used for broodstock	Up to 170 broodstock (subject to review by NMFS and co-managers prior to collection)
SR spring/summer Chinook salmon Juvenile and egg - Adipose fin-clipped (or intended)	Capture, handle, tag, tissue sample, and release live animal	Lookingglass Hatchery	285,000	285,000	Up to 35,000 total rearing mortality
SR spring/summer Chinook salmon Juvenile - Adipose fin-clipped (or intended)	Capture, sample, kill (Fish health examinations)	Lookingglass Hatchery	170	170	170

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

Lookingglass Creek 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 Lookingglass Creek	18,000	18,000	Up to 180
SR spring/summer Chinook salmon 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 Lookingglass Creek	25,000	500	Up to 128
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	5	5 (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	10	10 (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

Table 3. Permissible direct take of Snake River steelhead for RM&E activities associated with the Lookingglass Creek 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.

Lookingglass Creek 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 Lookingglass Creek	10,900	4,300	Up to 76
SR steelhead Juvenile - Adipose fin intact	Capture, handle, tag, tissue sample, and release live animal	Lookingglass Creek Adult Weir	300	300	Up to 3
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)	Lookingglass Creek Adult Weir	500	500	Up to 5
SR steelhead Adult - Adipose fin intact	Capture, handle, tag, tissue sample, and release live animal	Adult fall back at screw traps	10	10 (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

Table 4. Permissible direct take of Snake River spring/summer Chinook salmon in the Minam River for RM&E activities associated with spring/summer Chinook salmon production throughout the Grande Ronde River basin not directly related to fish culture. NMFS must be notified within two days if the number handled, marked, or killed is exceeded.

Minam River 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 Minam River	31,650	5,450	Up to 186
SR spring/summer Chinook salmon 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 Minam River	100	0	2
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	10 (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

Table 5. Permissible direct take of Snake River steelhead in the Minam River for RM&E activities associated with spring/summer Chinook salmon production throughout the Grande Ronde River basin not directly related to fish culture. NMFS must be notified within two days if the number handled, marked, or killed is exceeded.

Minam River 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 Minam River	5,700	2,000	Up to 39
SR steelhead Adult - Adipose fin intact	Capture, handle, tag, tissue sample, and release live animal	Adult fall back at screw traps	20	20 (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

Table 6. Permissible direct take of Snake River spring/summer Chinook salmon in the Wenaha River for RM&E activities associated with spring/summer Chinook salmon production throughout the Grande Ronde River basin not directly related to fish culture. NMFS must be notified within two days if the number handled, marked, or killed is exceeded.

Wenaha River 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 Wenaha River	2,000	1,500	Up to 25

Table 7. Permissible direct take of Snake River steelhead in the Wenaha River for RM&E activities associated with spring/summer Chinook salmon production throughout the Grande Ronde River basin not directly related to fish culture. NMFS must be notified within one week if the number handled, marked, or killed is exceeded.

Wenaha River 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 the Wenaha River	500	500	Up to 5

A. Special Conditions

1. The Permit Holders will 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 LSRCF annual operating plans (AOP) will address:
 - a. Sampling protocols for each annual run that are designed to meet permit conditions and the production goals identified 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.
 - c. Coordination of data and sampling.
2. The Permit Holders will also coordinate during the adult run to review updated in-season run projections and revise weir management plans as necessary.
3. Once developed, annual plans will be shared with NMFS once finalized.

Broodstock Collection (at Lookingglass Creek trap)

4. The Permit Holders and/or their agents may collect Chinook salmon from the fish ladder and adult fish trap on Lookingglass Creek, annually from approximately March 1 through September 30, provided that proportions of natural-origin adults collected for broodstock is consistent with levels defined in section 1.11 of the HGMP, 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 program goals. Data collection for this performance criterion will begin in 2016.
5. The co-managers will implement the existing plan outlined in the AOP for sorting and passage to minimize or avoid trap crowding and passage delays.
 - a. During operation of the weir and adult trap, the trap will be checked at least once every 24 hours.
 - b. Any captured fish will be either collected for transport or released at the time they are first handled.
 - c. 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.
6. 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 transported or released using normal protocols, free passage will be provided to prevent fish from being entrapped or

delayed for long periods at the weir.

7. If free passage must be provided, co-managers will attempt to monitor escapement of hatchery- and natural-origin Chinook salmon.
8. The Permit Holders and/or their agents may capture, handle, and remove spring/summer Chinook salmon and steelhead (as specified in HGMP) and in Table 1, Table 2, Table 3, Table 4, Table 5, Table 6, and Table 7 of this permit, and as described in the adult pass-keep schedule identified in Table 3 (Section 1.11) in the HGMP.
9. The Permit Holders shall ensure that infrastructure and management are achieving adult management objectives for escapement above the weir using the adult pass:keep scale (Table 3 in section 1.11 of the HGMP), and consistent with 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 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 ODFW, the NPT, the CTUIR, the Idaho Department of Fish and Game, the Columbia River Intertribal Fish Commission, NMFS laboratories, or state or Federal fish health laboratories for analysis and/or archive. Tissues of collected animals are the responsibility of the Permit Holders and remain so as long as they are useful for research purposes. Transfer of the tissues from the Permit Holders to other researchers 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 5.7 of the HGMP to minimize risk of catastrophic losses at Lookingglass Hatchery.
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 AOPs. NMFS recognizes the need for management flexibility, so minor 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.
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:
 - b. 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 must be reported to NMFS within two working days.
 - c. 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 24 and section 10.2 and 10.7 of the Lookingglass 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:
 - d. Co-managers will collect broodstock annually with the intent to produce 250,000 smolts for release, as identified in the program HGMP and *U.S. v. Oregon* Production Table B1.
 - e. Although the annual program goal is a release of 250,000 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 35,000 eggs or fry may be outplanted in Lookingglass Creek annually to adjust for smolt release production targets.

Facility Operations

18. The Lookingglass Fish Hatchery surface water intake does not currently meet NMFS water intake screening criteria.
 - a. Before the end of 2016, LSRCP will coordinate with co-managers and NMFS environmental services branch to conduct a review and develop a plan to bring the structure into compliance with current passage and screening criteria. The plan must include a schedule for securing funding and an implementation timeline.
19. Water withdrawals shall not exceed levels permitted by the Water Use Permits issued for the Lookingglass Fish Hatchery.

Research, Monitoring, and Evaluation

20. Because of the location of the juvenile screw trap in close proximity to the adult collection weir, the Permit Holders shall modify the operation of the screw trap during the time where adult spring/summer Chinook are present to minimize the capture of adults in the rotary screw trap.
21. The Permit Holders 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 Holders 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 Holders 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.
25. Continue monitoring for strays from the program into the Minam and Wenaha Rivers. For hatchery-origin adults in the Minam and Wenaha Rivers:
- i. Gather and track information (such as PIT tags, CWT, or genetic samples) that can allow identification of fish by release location brood year.
 - ii. Report the total proportion of hatchery-origin strays in the Minam and Wenaha Rivers, the hatcheries of origin (if known), and the proportion known from the Lookingglass program.
26. If the Lookingglass program is responsible for contributing more than 5% of the total spawners to either the Minam or Wenaha River, co-managers will contact NMFS to discuss whether program changes are needed to reduce the influence of the program on these natural-origin populations. The proportion will be calculated based on a 3-year running average starting in 2016; however, if it is apparent that the 3-year running average will exceed 5% prior to the third year, co-managers will contact NMFS in the year in which the likely exceedance is discovered.

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) 230-5412
(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 Holders 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 Holders 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 Holders 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 Holders 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 Annual Operating Plan (AOP) to the funding agency by March 31st of each year and to NMFS for 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/snakecomplan/>) and/or Bonneville Power Administration websites (<http://www.bpa.gov/Pages/home.aspx>).

- c. The annual report and/or multi-year analysis must include an assessment of the compliance with each of the provisions included in this permit. 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 Lookingglass Creek.
 - (ii) A summary of all hatchery- and natural-origin spring/summer Chinook salmon encountered at the Lookingglass Creek adult trap, and their disposition (passed, retained for broodstock, culled, or outplanted) as well the number of any known strays and their disposition.
 - (iii) Redd counts for Snake River spring/summer Chinook salmon in natural spawning areas.
 - (iv) Summary of outplant monitoring, as described in section B.16 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.
- d. 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
- e. Steps that the Permit Holders 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

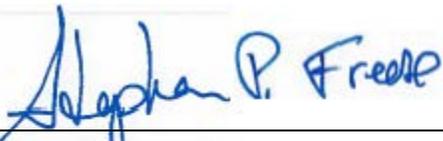
1. The Permit Holders must ensure that all ESA-listed species are handled carefully. Should NMFS determine that a procedure provided for under this permit is no longer acceptable, it will so inform the Permit Holders.
2. The Permit Holders, in implementing the hatchery program authorized by this Permit, 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 Holders 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 Holders 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 Holders 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 Holders must obtain any other Federal, state, and local permits/authorizations necessary for the conduct of the activities provided for in this permit.
7. Permit Holders 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 Holders must coordinate with other co-managers and/or researchers to minimize duplication and/or adverse cumulative effects occur as a result of the Permit Holders activities.
9. The Permit Holders 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 Holders must allow such person(s) to inspect the records and facilities of the Permit Holders 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 Holders, and/or any individual who is operating under the authority of this permit, to penalties as provided for in the ESA.
11. The Permit Holders are 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 Holders have authority and responsibility for the material taken. The Permit Holders 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 Holders.
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.

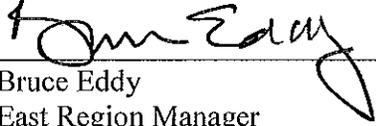
E. Signatures



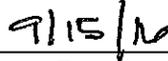
Barry Thom
Regional Administrator
NMFS West Coast Region

9/12/2016

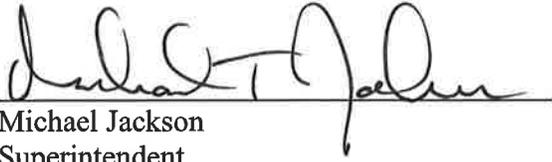
Date



Bruce Eddy
East Region Manager
Oregon Department of Fish and Wildlife



Date



Michael Jackson
Superintendent
Bureau of Indian Affairs

10.27.2016

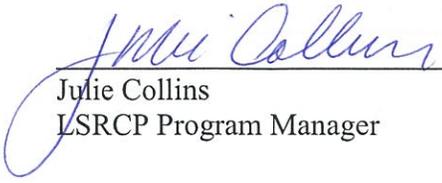
Date

Cheryl D. Schrock

Cheryl Schrock
Acting Superintendent
Bureau of Indian Affairs

10.03.2016

Date


Julie Collins
LSRCP Program Manager


Date

F. References

U.S. v. Oregon. 2009. 2008-2017 *U.S. v. Oregon* Management Agreement (modified January 23, 2009). Portland, Oregon.