

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

Permit Number: 18032

Permit Type: Scientific Research/Enhancement

Program Name: Lower Snake River Compensation Plan Little Sheep Summer Steelhead Hatchery Program

Expiration Date: December 31, 2027

Permit Holders:

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

U.S. Fish and Wildlife Service
1387 South Vinnell Way
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Contacts:

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I. Authorization

The Oregon Department of Fish and Wildlife (ODFW), and the U.S. Fish and Wildlife Service's Lower Snake River Compensation Plan office (USFWS-LSRCP), referred to as the Permit Holders, are hereby authorized to take threatened Snake River steelhead (*Oncorhynchus mykiss*) for artificial propagation and enhancement purposes. The program is co-managed by the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) and the Nez Perce Tribe (NPT). The activities are described in detail in the application submitted by the ODFW (ODFW 2011), 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 of this permit. The effects of issuance of this permit on ESA-listed species were analyzed in NMFS (2017).

II. Description of Proposed Action

The Little Sheep Summer Steelhead Hatchery Program goals are to restore a viable natural population of steelhead, reestablish sport and tribal fisheries, and maximize the beneficial uses of fish returning to the Snake River Basin. Through *U.S. v. Oregon*, an agreement was made between the four Columbia River Treaty Tribes, States, and Federal agencies to release up to 215,000 yearlings in Little Sheep Creek on the Imnaha River, Oregon (*U.S. v. Oregon* 2009).

Aspects of the program are funded by the LSRCF, 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. LSRCF funds are programmed for operation and maintenance needs at related/associated facilities, and numerous research, monitoring, and evaluation activities, as identified in approved annual statements of work.

This permit covers several activities related to the production, monitoring, and evaluation of the Little Sheep Summer Steelhead Hatchery Program. These activities include:

- Closely managing natural- and hatchery-origin steelhead composition in the fish spawning naturally above the weir
- Closely managing natural- and hatchery-origin fish composition in the broodstock as defined in the sliding scale
- Collection, sampling, and transport of adult steelhead for hatchery broodstock
- Incubation, rearing, marking, transport, acclimation, and release of juveniles
- Sampling, tagging, and monitoring of fish reared in the hatchery environment
- Research, monitoring, and evaluation (RM&E) activities (e.g., screw trap operation) to assess program effects on natural population status and trends

III. Take Description and Levels

Direct take of ESA-listed steelhead will include one or more of the following: harassment, capture, handling, collection, transport, holding, lethal spawning, biological sampling, tagging, and live release of hatchery and natural-origin steelhead, if encountered. Annual take and any take exceeding the specified levels must be reported as described in section C of this permit.

Table 1. Annual direct take of listed natural and hatchery-origin steelhead associated with the Little Sheep Summer Steelhead Program.

Lifestage	Take Activity	Capture Method and Location	Fish origin	Non-mortality (handling, marking and tagging)	Mortalities
Adult	Broodstock Collection	Little Sheep Creek Weir	Natural	Up to 100% of fish at weir (~300)	Up to 139 fish ¹
			Hatchery	Up to 100% of fish at weir (~3,500)	Up to 100% of fish at weir (~3,500)
Juvenile	Fish health sampling during rearing	Irrigon Hatchery	Hatchery	Up to 100% of fish in culture (~230,000)	1,500 fish
Juvenile	RM&E	Little Sheep Creek screw trap and acclimation site	Natural	8,000	Covered in ITS (~160)
			Hatchery	4,500	Covered in ITS (~50)

¹This take is based on a sliding scale; the greater the number of natural-origin returns to the weir, the greater the number used for broodstock (see below in Section C Broodstock Collection). Also includes a 10 percent overage in case of some loss due to disease or fecundity/fertilization issues.

IV. Special Conditions

A. Annual Planning

1. The Permit Holders will participate in an annual coordination meeting as part of the LSRCP annual operating plan (AOP) process to document sampling protocols, broodstock collection, and coordination of data and sampling for the coming year and revise as needed; the AOP will be consistent with this permit (and any other associated consultation documents), the associated HGMP, and *U.S. v. Oregon* production tables. Once the co-managers have finalized the annual plan, it will be shared with NMFS.
2. The Permit Holders will coordinate during the adult steelhead run to review in-season run projections and revise Little Sheep program management plans as necessary to meet management objectives and comply with permit conditions.

B. General Handling of ESA-listed Fish

3. If ESA-listed salmon and steelhead are anesthetized 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 injury (e.g., counting).
4. ESA-listed salmon and steelhead must be handled with extreme care and kept in water to the maximum extent possible during sampling, handling, and release. 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 fish must be processed first.

5. ESA-listed salmon and steelhead used for research/enhancement activities may only be taken by the means, in the areas, and for the purposes defined in the HGMP and subsequent modifications, as limited by the terms and conditions specified in this permit.
6. ESA-listed fish must not be handled or marked when water temperature exceeds 18°C at the capture site. Trap operation shall cease until either temperature drops below the threshold, or pending further consultation with NMFS to determine if continued trap operation poses substantial risk to ESA-listed species. Under these conditions, ESA-listed fish (including those captured, but not processed) may only be identified and counted.
7. Visual observation protocols must be used instead of intrusive sampling methods whenever possible.

C. Broodstock Collection and Adult Management

8. The Permit Holders may collect steelhead from the adult fish trap on Little Sheep Creek annually from approximately February 1 through May 31.
9. Naturally spawning hatchery-origin steelhead in Little Sheep Creek shall not exceed 250 fish above the weir.
10. The proportion of hatchery-origin fish spawning naturally in Little Sheep Creek is dependent on the number of natural-origin steelhead returning to Little Sheep Creek as defined by Table 2. The calculations in the table are based on the following: when the return to the Little Sheep Creek Weir is ≤ 100 , the proportion of natural-origin broodstock (pNOB) will be 10 percent of the natural run to the Little Sheep Creek Weir. When the return to the Little Sheep Creek Weir is ≥ 100 , 10 natural fish plus 40 percent of the return that exceeds 100 are used for broodstock (natural-origin broodstock = $(X-100) * 0.4 + 10$).
11. The number of natural-origin steelhead used for broodstock annually shall not exceed the number defined by the sliding scale.
12. 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.

Table 2. Management of broodstock and hatchery-origin spawners in Little Sheep Creek above the weir (pNOB: proportion natural-origin fish in the broodstock; pHOS: proportion hatchery-origin fish spawning naturally).

Natural-origin Return to Little Sheep ¹	Natural-origin broodstock	pNOB ²	Number of natural-origin spawners	Number of hatchery-origin spawners	pHOS
< 100	1-10	0.01-0.08	0-90	150-250	Up to 1
101-150	10-30	0.08-0.24	91-120	130-159	0.52-0.64
151-200	30-50	0.24-0.40	121-150	100-129	0.4-0.52
201-250	50-70	0.40-0.56	151-180	70-99	0.28-0.4
> 251	70-126	0.56-1	> 180	< 70	< 0.28

¹Based on pre-season forecast.

²Based on a broodstock need of 126 individuals (~63 pairs of male and female).

D. Fish Culture

13. Fish culture, including collection, transport, holding and spawning of broodstock, egg incubation, juvenile rearing and release, fish health examinations, and marking and tagging shall be as described in the HGMP and AOP. NMFS recognizes the need for management flexibility, so minor deviations may be permitted upon request if consistent with the effects already considered in this consultation.

E. Juvenile Releases

14. The Permit Holders shall release up to 215,000 juvenile Snake River steelhead as described in the HGMP. The smolt number released will not exceed 110% of the proposed release levels in any year. Consecutive years of overproduction shall trigger an adjustment in the parameters used in the calculation of broodstock targets.

15. The Permit Holders will release hatchery-origin smolts at approximately 4-5 fish per pound. If more than 20 hatchery-origin juveniles/100m², using a five-year running average, are identified during surveys of Deer Creek and Little Sheep Creek post-juvenile release (potential residuals), the Permit Holders will discuss release alternatives with NMFS.

16. In the event of an emergency, such as flooding, water loss to raceways, epizootic outbreak, or vandalism that necessitates early release of ESA-listed steelhead to prevent catastrophic mortality, any such release shall be reported within 48 hours to NMFS.

F. Facility Operations

17. All facility structures shall meet or exceed NMFS water intake screening and passage criteria. If facility structures are found to be out of compliance, Permit Holders will coordinate with NMFS to develop a strategy for correcting compliance issues.
18. Water withdrawals shall not exceed levels permitted by the Water Use Permits issued to each of the facilities.

G. Research, Monitoring, and Evaluation

19. Any activities or methodologies associated with RM&E must be done according to the general guidelines for handling listed fish detailed above and within the take limits defined in Table 1.
20. The Little Sheep screw trap will be monitored and checked twice a day if operated during higher flow events that might also lead to increases in trap captures. Steelhead encountered at the Cow Creek screw trap are accounted for in the Imnaha spring Chinook salmon permit.
21. The Permit Holders may capture, handle, measure, tag, and collect tissue samples (fin clips, opercular punches, scales, and blood) from live Snake River steelhead. Otoliths, head cartilage, or whole snouts may be taken from dead steelhead used for hatchery broodstock, carcasses collected on the spawning grounds, and mortalities from weir or screw-trap operation.

H. Permit Reporting and Reauthorization Requirements

22. If the authorized level of take is exceeded, or if circumstances indicate that such an event is imminent, the Permit Holders must notify NMFS within two days of knowledge of such take exceedance, and submit a written report describing the circumstances of the unauthorized take within two weeks of take exceedance. Pending review of these circumstances and discussion with the Permit Holders, NMFS may suspend program activities or amend this permit in order to allow activities to continue.
23. The Permit Holders must submit to NMFS for approval, in writing, changes in any aspect of program implementation and operations that potentially would result in increased or a different manner of ESA-listed species take.
24. Reporting for the preceding year will occur based on the funding agency reporting timelines. Reports can be sent to NMFS directly, or the Permit Holders can notify NMFS when the reports are available online and provide the website link. Reports can be combined with reports already being provided to the LSRCP, but should include:
 - a. *Hatchery Environment Monitoring Reporting*
 - Number and composition of Little Sheep broodstock, and collection dates
 - The numbers, pounds, dates, locations, and tag/mark information of released fish
 - Average size of released juveniles and standard deviation
 - Egg-to-smolt survival rate

- Number of hatchery-origin juveniles per 100m² in Deer and Little Sheep Creeks
- Disease outbreak occurrence, duration, and proportion of production lost at the hatchery and acclimation sites
- Any unforeseen effects on ESA-listed fish

b. *Natural Environment Monitoring Reporting*

- The number and origin of returning adults to the Imnaha River population (using redd/spawning ground surveys, PIT tag detections, etc.)
- Steelhead encountered at the Little Sheep adult trap and their disposition (passed, retained for broodstock, or culled)
- Distribution of hatchery- and natural-origin spawners in the Imnaha River
- pHOS for the Imnaha River population
- Smolt-to-adult survival rate as calculated by the operators in previous program evaluation reports
- Post-release out-of-basin migration timing, and travel rate of hatchery-origin juveniles to McNary Dam
- Mean size and standard deviation, number, outmigration timing, and age structure of natural-origin juveniles
- Number of any natural-origin ESA-listed sockeye salmon and steelhead encountered and the numbers that die annually during RM&E and broodstock collection activities related to this permit. Refer to fall Chinook and spring/summer Chinook salmon reports for encounter and mortality of those species.

25. All reports and notifications should be sent to:

Charlene Hurst
 Sustainable Fisheries Division
 National Marine Fisheries Service, West Coast Region
 1201 N.E. Lloyd Boulevard, Suite 1100
 Portland, OR 97232
 (503) 230-5409, *Charlene.n.hurst@noaa.gov*

V. General Conditions

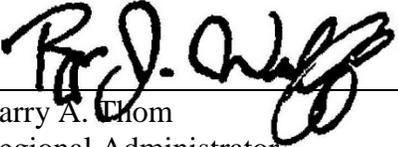
1. Should NMFS determine that a procedure provided for under this permit is no longer acceptable, it will so inform the Permit Holders.
2. The Permit Holders, in implementing the hatchery program authorized by this permit, have accepted the terms and conditions of this permit and must ensure compliance with the provisions of this permit, the applicable regulations, and the ESA
3. The Permit Holders 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.
4. The Permit Holders may not transfer or assign this permit without NMFS's approval to any other person as defined in Section 3(12) of the ESA. This permit ceases to be no longer effective if transferred or assigned to any other person without prior authorization from NMFS.

5. 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.
6. Permit Holders carrying out any of the permit conditions or program actions requiring Federal or state licenses to practice their profession must be licensed under the appropriate law
7. 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.
8. The Permit Holders must allow any NMFS employee or any other person designated by NMFS to accompany field personnel, and inspect the records and facilities during the activities that pertain to ESA-listed species covered by this permit or NMFS's responsibilities under the ESA.
9. The Permit Holders must submit, upon request, the identities and qualifications of all personnel designated to act under the authority of this permit
10. 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 Holder is responsible for maintaining biological samples collected from ESA-listed species as long as they are useful for research purposes. Biological samples collected during the activities authorized above may be 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 tissues from the Permit Holders to researchers other than those listed above requires written approval from the Anadromous Production and Inland Fisheries Branch, Sustainable Fisheries Division, NMFS West Coast Region.
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.

VI. 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.

VII. Signatures

For  _____
Barry A. Thom
Regional Administrator

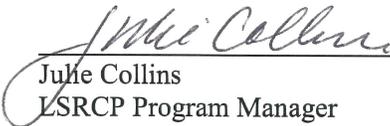
7/11/2017
Date

Bruce Eddy

Bruce Eddy
East Region Manager

7/11/17

Date


Julie Collins
LSRCP Program Manager

7-17-2017
Date

VIII. References

ODFW. 2011. Lower Snake River Compensation Plan (LSRCP) Little Sheep Creek Summer Steelhead Hatchery Program HGMP. May 2011. 81p.

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