

SECTION 10(a)(1)(A) PERMIT FOR TAKES OF
ENDANGERED/THREATENED SPECIES

Permit Number: 1196
Permit Type: Scientific Research/Enhancement
Expiration Date: December 31, 2007
Annual Period: January 1 through December 31
Annual Report Due: January 31 each year

Permit Holder:

Washington Department of Fish and Wildlife
600 Capitol Way N
Olympia, WA 98501-1091

Contact:

Jon Anderson
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Authorization:

The Washington Department of Fish and Wildlife (WDFW) is hereby authorized to take endangered upper Columbia River (UCR) spring chinook salmon (*Oncorhynchus tshawytscha*) and endangered UCR steelhead (*Oncorhynchus mykiss*) for scientific research/enhancement purposes, as cited in the Permit Holder's application, subject to the provisions of Section 10(a)(1)(A) of the Endangered Species Act of 1973 (ESA) (16 U.S.C. §§ 1531-1543), the National Marine Fisheries Service (NOAA Fisheries) regulations governing ESA-listed species permits (50 CFR Parts 222-226), and the conditions hereinafter set forth.

Abstract:

WDFW is authorized an annual take of adult and juvenile, endangered, naturally produced and artificially propagated, UCR spring chinook salmon associated with a hatchery supplementation program for the Wenatchee and Methow River populations of the species. The program is intended to supplement the species' naturally spawned production in the two watersheds. WDFW's program includes the collection of ESA-listed adults for broodstock, the use of artificial propagation in a hatchery environment, the rearing of artificially spawned progeny in the hatcheries, and the release of artificially propagated juveniles in the respective stream of origin. Incremental changes in production levels in response to adult escapement levels, predetermined means to manage stray fish, and two approaches for population separation are some strategies that WDFW will employ to minimize risks. All aspects of the program will be monitored in a manner that allows comparison of the effectiveness of alternative strategies.

WDFW operates two hatchery complexes within the upper Columbia River Basin for the propagation of spring chinook salmon: the Methow Fish Hatchery Complex and the Rock Island Fish Hatchery Complex. These complexes are funded by the Public Utility Districts in the UCR region to mitigate the impacts of the hydropower dams on the mainstem Columbia River. The Public Utility District No. 1 of Chelan County (Chelan PUD) funds the operation of the Rock

Island Fish Hatchery Complex, and the Public Utility District No. 1 of Douglas County (Douglas PUD) funds the operation of the Methow Fish Hatchery Complex. The Methow Complex uses returning spring chinook salmon adults collected at weirs on the Methow River and its tributaries, the Twisp and Chewuch Rivers. More recently, up-river-bound spring chinook salmon adults have been collected at Wells Dam. The adult spring chinook salmon program at the U.S. Fish and Wildlife Service (USFWS) Winthrop National Fish Hatchery (NFH) (Permit 1300) coordinates broodstock collection and rearing activities with the Methow Complex in the Methow River Basin. The Rock Island Complex uses spring chinook salmon broodstock collected at weirs on the Chiwawa River and Nason Creek, tributaries of the Wenatchee River, and at Tumwater Dam on the Wenatchee River. WDFW's Eastbank Hatchery is part of the Rock Island Complex. WDFW-managed satellite programs included within the two complexes are the Twisp Pond, Chiwawa Ponds, Chewuch Pond and the aforementioned adult collection weirs on the Methow, Chiwawa, Twisp, Chewuch Rivers, and Nason Creek.

Supplementation program activities will include:

- the collection of broodstock through WDFW trapping operations at Wells Dam for Methow River populations (with potential collection on the Twisp River, Chewuch River, at Foghorn Dam on the Methow River, and at Methow Hatchery) and on the Chiwawa River and Nason Creek or Tumwater Dam for Wenatchee River Basin-origin spring chinook salmon;
- the transfer of adults and fertilized eggs between the Methow Hatchery and the Winthrop NFH;
- the holding and artificial spawning of collected adults at the Methow and Eastbank Hatcheries;
- the incubation and propagation from the fertilized egg through the smolt life stage at the Methow and Eastbank Hatcheries;
- the transfer of fingerlings and pre-smolts from the two hatcheries for rearing in acclimation ponds on the Chiwawa, Twisp, and Chewuch Rivers; and
- the release of smolts into the Methow, Chewuch, Twisp, and Chiwawa Rivers from the WDFW hatcheries and acclimation ponds on those systems.

This permit also authorizes WDFW annual incidental takes of ESA-listed species, including endangered UCR steelhead, associated with broodstock collection activities, hatchery operations, and juvenile fish releases from the program.

A. Take Descriptions and/or Levels

This permit is for activities to be conducted over approximately a five-year period. Annual takes listed below are subject to NOAA Fisheries' annual authorization process (see Section C - Reporting and Annual Authorization Requirements) during the period that this permit is valid.

Intentional Take - Wenatchee River Basin (Rock Island Complex)

1. Adult and jack endangered UCR spring chinook salmon (both natural and hatchery origin) that return to the Chiwawa River and Nason Creek weirs and Tumwater Dam each year may be captured, anesthetized, and handled (enumerated, measured, sampled for tissues and/or scales). Tissue samples and/or scales may be transferred to WDFW's Scale Analysis Laboratory in Olympia or WDFW's Genetic Stock Identification Laboratory in Olympia for archival storage and/or analysis.
2. Of the combined total number of spring chinook salmon adults and jacks that return to the Chiwawa River and Nason Creek each year, WDFW may retain no more than 400 or one-third, whichever is less, for broodstock to meet the long-term smolt production goals of the program. The ESA-listed adult chinook salmon retained for broodstock may be transferred to transport vehicles and transported to WDFW's spawning facility.
3. The adult and jack endangered UCR spring chinook salmon not retained for broodstock must be released unharmed above the respective trapping facility for natural spawning immediately after being enumerated.
4. The ESA-listed adult fish retained for broodstock may be marked and/or tagged, treated with antibiotics, placed in holding ponds, and spawned. Sperm from ESA-listed adult males may be cryopreserved for potential future use. Carcasses of the ESA-listed fish spawned in captivity may be outplanted in the Chiwawa River watershed for nutrient enrichment.
5. The resulting eggs generated from the supplementation program may be incubated and the ESA-listed juvenile fish progeny may be reared in captivity. ESA-listed juvenile fish produced from WDFW's supplementation program may be tagged/marked with coded wire tags, passive integrated transponders, fin clips, and/or other biological identifiers.
6. Up to 672,000 juvenile, endangered, artificially propagated, UCR spring chinook salmon, progeny generated from the supplementation program, may be transported from the hatchery and released into acclimation ponds on the Chiwawa River for subsequent volitional out-migration and/or released directly into the Chiwawa River when they are ready to out-migrate.
7. ESA-listed juvenile fish within the hatchery environment may be monitored to acquire meristic and morphological information or sacrificed to obtain otoliths for future reference and/or to obtain pertinent pathological or physiological information. Indirect mortalities of adult ESA-listed fish associated with capturing, handling, and transporting activities must not exceed 5 percent of the total adult fish collected.

Intentional Take - Methow River Basin (Methow Hatchery Complex)

8. Adult and jack, endangered, UCR spring chinook salmon (both natural and hatchery origin) that return to Wells Dam, the Twisp River trap, the Chewuch River trap, and Foghorn Dam each year may be captured, anesthetized, and handled (enumerated, measured, sampled for tissues and/or scales). Tissue samples and/or scales may be transferred to WDFW's Scale Analysis Laboratory in Olympia or WDFW's Genetic Stock Identification Laboratory in Olympia for archival and/or analysis.
9. WDFW may retain adult and jack, endangered, UCR spring chinook salmon that return to Wells Dam (and when necessary the Twisp River trap, Chewuch River trap, Foghorn Dam, Winthrop National Fish Hatchery (NFH), and/or the Methow Fish Hatchery) for use as broodstock. Broodstock collected by WDFW may be used in WDFW's and in U.S. Fish and Wildlife Service's (USFWS) Methow River Basin supplementation programs. Of the adult and jack spring chinook salmon captured and retained for broodstock at Wells Dam, the Twisp River trap, the Chewuch River trap, and Foghorn Dam, WDFW shall retain a representative sample of both hatchery and naturally produced fish. The annual production goal for WDFW's supplementation program at Methow Fish Hatchery of 550,000 smolts shall be used until modifications at the fish hatchery is made. Under this production goal scenario, when the total annual adult return to Wells Dam is predicted to be 668 adults or fewer, then all of the adult fish may be retained and placed into WDFW and USFWS' adult-based supplementation programs. When the total annual adult return to Wells Dam is predicted to be 669 to 964, up to 69 percent of the adult run may be placed into WDFW and USFWS' adult-based supplementation programs and a minimum of 296 adults shall be passed upstream of the dam for natural spawning. When the total annual adult return to Wells Dam is predicted to be over 964, the retention of adults shall be at levels that will meet maximum production objectives for WDFW and USFWS' programs.
10. The ESA-listed adult chinook salmon retained for broodstock may be transferred to transport vehicles and transported to WDFW's spawning facility or USFWS' Winthrop NFH. Handling of ESA-listed adult fish by USFWS is authorized under a separate take authorization.
11. The adult and jack, endangered, UCR spring chinook salmon not retained for broodstock must be released unharmed above the respective trapping facility for natural spawning immediately after being enumerated.
12. The ESA-listed adult fish retained for broodstock may be marked and/or tagged, treated with antibiotics, placed in holding ponds, and spawned. Sperm from ESA-listed adult males may be cryopreserved for potential future use. Carcasses of the ESA-listed fish spawned in captivity may be outplanted in the Methow River watershed for nutrient enrichment if disease protocols as determined by fisheries co-managers are met.

13. The resulting eggs generated from the supplementation program may be incubated and the ESA-listed juvenile fish progeny may be reared in captivity. ESA-listed juvenile fish produced from WDFW's supplementation program may be tagged/marked with coded wire tags, passive integrated transponders, fin clips, and/or other biological identifiers.
14. Up to 550,000 juvenile, endangered, artificially propagated, UCR spring chinook salmon, progeny generated from WDFW's supplementation program, may be transported from the hatchery and released into acclimation ponds on the Chewuch and Twisp rivers for subsequent volitional out-migration and/or released directly into the Chewuch River when they are ready to out-migrate.
15. ESA-listed juvenile fish within the hatchery environment may be monitored to acquire meristic and morphological information or sacrificed to obtain otoliths for future reference and/or to obtain pertinent pathological or physiological information. Indirect mortalities of adult ESA-listed fish associated with capturing, handling, and transporting activities must not exceed 5 percent of the total adult fish collected.
16. The progeny produced from the Methow Fish Hatchery shall be released on-station or transferred to the Chewuch Pond as subyearlings for acclimation and release. The progeny of known Twisp River spring chinook salmon shall be acclimated and released from the Twisp Pond or on-station. A portion of the eggs/progeny from the Methow Fish Hatchery may be transferred to the Winthrop NFH for rearing and release.

Incidental Take

17. Incidental take of ESA-listed UCR steelhead during WDFW's broodstock collection activities is authorized. During collection of spring chinook salmon broodstock at Wells Dam, WDFW may handle up to 100 listed steelhead when trapping occurs at both adult fish ladders. Trapping of spring chinook salmon in both ladders is necessary when the annual adult return is such that all adults collected will be retained for broodstock. As the annual return increases, trapping will be limited to the west ladder which reduces the potential to handle listed steelhead to less than 10 adults. Mortalities from the incidental take of listed steelhead is expected to be no more than 9 adults.
18. Incidental takes of ESA-listed species associated with WDFW's broodstock collection activities, hatchery operations, and juvenile fish releases from the program are authorized. Because of the inherent biological attributes of aquatic species such as salmon and steelhead, the dimensions and variability of the Columbia and Snake River system and tributaries, and the operational complexities of hatchery actions, determining precise incidental take levels of ESA-listed species attributable to WDFW's hatchery activities are not possible at

present. In the absence of quantitative estimates of incidental take, NOAA Fisheries will monitor fish release numbers/locations and WDFW's hatchery operations to assure that incidental takes do not operate to the disadvantage of ESA-listed species. If NOAA Fisheries determines that incidental takes due to WDFW's hatchery activities have the potential to operate to the disadvantage of ESA-listed species, WDFW must suspend the activities that result in the incidental takes until a reasonable solution is achieved, this permit is amended, and/or WDFW's program is reevaluated under Section 7 of the ESA.

B. Special Conditions

1. In cooperation with the Joint Fishery Parties and the Mid-Columbia Coordinating Committee, WDFW shall develop annual broodstock objectives and site-based broodstock collection protocols for the UCR spring chinook salmon supplementation program. The annual broodstock objectives and protocols shall be submitted to the Hatcheries and Inland Fisheries Branch, NOAA Fisheries by April 15 each year (see Operational Reports and Notification Requirement D.1). NOAA Fisheries will provide a letter of approval, if it is determined that the annual broodstock objectives and protocols are consistent with the terms and conditions of this permit.
2. Each year, WDFW shall operate the Nason Creek and Chiwawa River weirs from June 1 to September 10. The annual broodstock collection protocols will determine the daily operations at the Nason Creek and Chiwawa River weirs and the Tumwater Dam trap.
3. WDFW shall remove the captured fish from the traps daily when the traps are operating. Those fish not retained for broodstock shall be passed upstream of the weir for natural spawning after being handled for enumeration and the collection of biological information.
4. WDFW must provide seven-day-a-week on-site monitoring of the adult traps and acclimation sites. The adult trap/holding box must be secured with locking lids or other mechanisms to prevent vandalism and/or unauthorized take.
5. WDFW shall mark all hatchery-produced Nason Creek and Chiwawa River spring chinook salmon to allow the segregation of adults for broodstock and evaluations of escapement and natural production in the Wenatchee River Basin (see Reporting and Annual Authorization Requirement C.4.).
6. After the adult fish are spawned, WDFW shall incinerate or bury all UCR spring chinook salmon carcasses if there is not a research, educational, or public outreach purpose identified, or distribute the carcasses in the Wenatchee River watershed for stream fertilization purposes if disease protocols as determined by the fisheries co-managers are met.

7. WDFW shall report to the Hatcheries and Inland Fisheries Branch, NOAA Fisheries annually on the number of adult, endangered, UCR spring chinook salmon collected and retained for broodstock and the details of the spawning procedures that were implemented. The report shall include a description of the origin (in-basin or out-of-basin; naturally produced or hatchery-produced (when possible)), as well as the proportion of males and females, of all spring chinook salmon used for artificial spawning. WDFW shall also provide detailed information (number, origin, sex, condition) on the adult fish released for natural spawning (see Reporting and Annual Authorization Requirement C.1).
8. Prior to any hatchery-produced juvenile fish releases and/or transfers, WDFW must receive approval from the Hatcheries and Inland Fisheries Branch, NOAA Fisheries for the number, stock origin, release dates, and release location(s) of the fish to be released and/or transferred. A plan describing proposed fish releases or transfers, developed annually by the Joint Fishery Parties and the Mid-Columbia Coordinating Committee, must be submitted to NOAA Fisheries two months prior to any such releases or transfers (see Operational Reports and Notification Requirement D.4).
9. With the cooperation of the USFWS, WDFW shall develop an identification method for each of the production groups in the Methow River Basin (Twisp River stock, Chewuch River stock, Methow River composite stock Winthrop NFH Carson-stock spring chinook and others) to allow for the broodstock segregation of returning adults and evaluation of escapement and natural production (see Reporting and Annual Authorization Requirement C.4.).
10. WDFW shall determine the origin (in-basin or out-of-basin; naturally produced or hatchery-produced (when possible)) of all spring chinook salmon retained prior to spawning. WDFW shall avoid using marked spring chinook salmon originating outside the Mid-Columbia River region for broodstock. Coded wire tags shall be read and the origin of each adult spawner shall be determined. The progeny of the adults captured at Wells Dam that are from the Entiat River or the Wenatchee River programs shall be transferred to their hatchery of origin if consistent with fish health protocols. Adult hatchery fish that are determined to originate from Winthrop NFH shall be transferred to Winthrop NFH.
11. WDFW shall individually mark/tag or segregate collected adults to identify them by time of arrival. If too many adults are collected because the actual run size differs substantially from the predicted run size, adults may be selected for return to the river for natural spawning. Late arriving adults shall be genotyped through in-situ scale pattern analysis and maturation timing to help ensure that ocean-type chinook salmon are not inadvertently included in the broodstock.

12. WDFW shall spawn both listed hatchery x natural and natural x natural crosses to the extent possible and evaluate the success of the two types of crosses. When possible, naturally produced fish retained for broodstock shall represent the natural-origin population in terms of age composition, sex ratio, and run timing (see Reporting and Annual Authorization Requirement C.3.).
13. To the greatest extent possible, WDFW shall maintain known Twisp River spring chinook salmon as a separate broodstock within the hatchery. The progeny of known Twisp River spring chinook salmon shall be distinctly marked for identification purposes.
14. To minimize the lateral transfer of pathogens, a sterilized needle must be used for each individual injection when PIT-tagging ESA-listed fish.
15. All ESA-listed fish handled out-of-water for the purpose of recording biological information must be anesthetized. Anesthetized fish must be allowed to recover (e.g. in a recovery tank) before being released. Fish that are simply counted must remain in water but do not need to be anesthetized.
16. To reduce and control fish disease incidences, WDFW will use the disease control procedures identified in the operations plans and adhere to the Washington Co-Manager, Pacific Northwest Fish Health Protection Committee and IHOT fish disease control policies.

C. Reporting and Annual Authorization Requirements

Contact: Hatcheries and Inland Fisheries Branch
525 NE Oregon Street, Suite 510
Portland, OR 97232-4169

(503) 736-4737
(503) 872-2737 (FAX)

For the duration of this permit, work in each succeeding year is contingent on submission and written approval of a report on each preceding year's research/enhancement activities. Annual reports are due by January 31 each year.

The annual report must include:

1. a detailed description of activities conducted under this permit, including the total number of fish taken at each location, the number of ESA-listed fish taken at each location, the manner of take, and the dates/locations of take (see Special Conditions B.7.);
2. measures taken to minimize disturbances to ESA-listed fish and the effectiveness of these measures, the condition of ESA-listed fish taken and used for research/enhancement activities, a description of the effects of research/enhancement activities on the subject species, the disposition of ESA-listed fish in the event of mortality, and a brief narrative of the circumstances surrounding ESA-listed fish injuries or mortalities;
3. a detailed description of spawning activities (see Special Conditions B.12.);
4. a detailed description of all marking/tagging used to segregate production groups (see Special Conditions B.5. and B.9.);
5. any problems that may have arisen during research/enhancement activities, and a statement as to whether or not the research/enhancement activities had any unforeseen effects;
6. a summary of all mortality patterns of ESA-listed fish in the hatchery;
7. a summary documenting the monitoring and evaluation activities associated with the endangered UCR spring chinook salmon hatchery supplementation program. Such monitoring and evaluation efforts shall include the relative success of juvenile fish rearing procedures and techniques, a description of any substantial mortality events in the hatcheries, CWT recoveries and analysis, an evaluation of the relative success of hatchery x natural and natural x natural crosses, and an evaluation of release strategies;

8. steps that have been and will be taken to coordinate the research with that of other researchers;
9. the number and origin of all ESA listed fish provided from WDFW programs for educational, Tribal, or public outreach activities.

D. Operational Reports and Notification Requirements

Contact: Hatcheries and Inland Fisheries Branch
525 NE Oregon Street, Suite 51
Portland, OR 97232-4169

(503) 736-4737
(503) 872-2737 (FAX)

1. WDFW shall develop annual broodstock objectives and site-based broodstock collection protocols for the UCR spring chinook salmon supplementation programs in the Wenatchee River and Methow River, in cooperation with the Joint Fishery Parties and the Mid-Columbia Coordinating Committee. The annual broodstock objectives and protocols shall be submitted to the Hatcheries and Inland Fisheries Branch, NOAA Fisheries by April 15 each year (see Special Condition B.1.).
2. Each year, prior to the conduct of research/enhancement activities, the Permit Holder must identify the personnel designated to act under the authority of this permit and confirm their experience through resumés or other evidence of their qualifications.
3. The Permit Holder must provide plans for future undefined projects and/or changes in sampling locations or research/enhancement protocols and obtain approval from NOAA Fisheries prior to implementation.
4. One month prior to any ESA-listed fish releases and/or transfers, WDFW must submit a plan describing the genetic origin/lineage, number, and destination of the fish to be released and/or transferred and receive approval from NOAA Fisheries (See Special Condition B.8.).
5. WDFW shall, at the first indication that annual production will exceed the 672,000 smolt goal for the Chiwawa River, obtain written approval from the Hatcheries and Inland Fisheries Branch, NOAA Fisheries, to continue to rear and release fish in excess of the 672,000 production goal.
6. WDFW shall, at the first indication that annual production will exceed the annual production goal of 550,000 smolts into the Methow, Twisp, and Chewuch Rivers,

obtain approval from the Hatcheries and Inland Fisheries Branch, NOAA Fisheries, to continue to rear and release fish in excess of the 550,000 production goal.

7. If an ESA-listed fish mortality event occurs in either one of WDFW's hatcheries (>10 percent mortality in one event), WDFW must inform NOAA Fisheries of such event within two days. The Permit Holder must then submit a detailed written report.
8. The Permit Holder must report whenever the authorized level of take is exceeded, or if circumstances indicate that such an event is imminent. Notification should be made as soon as possible, but no later than two days after the authorized level of take is exceeded. The Permit Holder must then submit a detailed written report. Pending review of these circumstances, NOAA Fisheries may suspend research/enhancement activities or amend this permit to allow research/enhancement activities to continue.
9. The Permit Holder must report the take of any ESA-listed species not included in this permit, when it is killed, injured, or collected during the course of research/enhancement activities. Notification should be made as soon as possible, but no later than two days after the unauthorized take. The Permit Holder must then submit a detailed written report. Pending review of these circumstances, NOAA Fisheries may suspend research/enhancement activities or amend this permit to allow research/enhancement activities to continue.

E. General Conditions

1. The Permit Holder must ensure that the ESA-listed species are taken only by the means, in the areas, and for the purposes set forth in the permit application, as limited by the terms and conditions in this permit.
2. The Permit Holder must ensure that all ESA-listed species are handled carefully. Should NOAA Fisheries determine that a procedure provided for under this permit is no longer acceptable, the Permit Holder must immediately cease such activity until NOAA Fisheries determines an acceptable substitute procedure.
3. The Permit Holder, in effecting the take authorized by this Permit, is considered to have accepted the terms and conditions of this permit and must be prepared to comply with the provisions of this permit, the applicable regulations, and the ESA.
4. The Permit Holder is responsible for the actions of any individual operating under the authority of this permit. Such actions include capturing, handling, releasing, transporting, maintaining, and caring for any ESA-listed species authorized to be taken by this permit.

5. The Permit Holder, personnel, or designated agent acting on the Permit Holder's behalf 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.
6. The Permit Holder may not transfer or assign this permit 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 NOAA Fisheries.
7. The Permit Holder must obtain any other Federal, state, and local permits/authorizations necessary for the conduct of the activities provided for in this permit. In addition, before taking ESA-listed species in the territorial waters of a foreign country, the Permit Holder must secure consent from, and comply with the appropriate laws of, that country.
8. Any personnel of the Permit Holder requiring Federal or state licenses to practice their profession must be duly licensed under the appropriate law.
9. The Permit Holder must coordinate with other co-managers and/or researchers to ensure that no unnecessary duplication and/or adverse cumulative effects occur as a result of the Permit Holder's activities.
10. The Permit Holder must allow any NOAA Fisheries employee(s) or any other person(s) designated by NOAA Fisheries, to accompany field personnel during the activities provided for in this permit. The Permit Holder must allow such person(s) to inspect the Permit Holder's records and facilities if such records and facilities pertain to ESA-listed species covered by this permit or NOAA Fisheries' responsibilities under the ESA.
11. Under the terms of the regulations, a violation of any of the terms and conditions of this permit will subject the Permit Holder, and/or any individual who is operating under the authority of this permit, to penalties as provided for in the ESA.
12. The Permit Holder is responsible for 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 maintains authority and responsibility of the material taken. The Permit Holder may not transfer biological samples to anyone not listed in the application without obtaining prior written approval from NOAA Fisheries. Any such transfer will be subject to such conditions as NOAA Fisheries deems appropriate.

