

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

Permit Number: 1592
Permit Type: Scientific Research/Enhancement - Artificial Propagation
Program Name: Upper Columbia River Spring Chinook Salmon White River
Supplementation Program
Expiration Date: May 31, 2010

Joint Permit Holders:
Public Utility District No. 2 of Grant County
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Authorization:

The Public Utility District No. 2 of Grant County (Grant PUD), the Washington Department of Fish and Wildlife (WDFW), and the Confederated Tribes and Bands of the Yakama Nation (YN), together referred to as the Permit Holders, are hereby authorized to take endangered upper Columbia River (UCR) spring Chinook salmon (*Oncorhynchus tshawytscha*) and threatened UCR steelhead (*O. mykiss*) for the purpose of enhancing the UCR spring Chinook salmon spawning aggregate in the White River in Chelan County, Washington. The activities are described in the application submitted by Grant PUD on behalf of the Permit Holders and are subject to the provisions of Section 10(a)(1)(A) of the Endangered Species Act of 1973 (ESA) (16 U.S.C. §§ 1531-1543), the National Marine Fisheries Service (NMFS) regulations governing ESA-listed species permits (50 CFR Parts 222-226), and the conditions hereinafter set forth.

Abstract:

The Permit Holders are authorized annual take of adult and juvenile, endangered, naturally produced and artificially propagated, UCR spring Chinook salmon associated with an artificial propagation program for the White River spawning aggregate that is part of the Wenatchee population of spring Chinook salmon. The program is intended to supplement the species' naturally spawning production. The authorized program includes the collection of ESA-listed eggs or fry from the White River to rear in captivity to the adult stage for broodstock, the rearing

of artificially spawned progeny in hatchery facilities outside the White River basin, the acclimation of pre-smolts in temporary facilities in the White River basin, and the release of artificially propagated juveniles into the White River in Chelan County, Washington. All aspects of the program will be monitored in the hatchery and natural environments in a manner that allows for the evaluation of the effectiveness of this program.

This permit is issued for a term of three years based on an immediate need identified by the co-managers of the fish resources of Washington State as described in the permit application and the Biological Opinion on the issuance of this permit. A long-term plan in the form of a Hatchery and Genetics Management Plan (HGMP) for the supplementation of spring Chinook salmon in the White River is under development by the Priest Rapids Coordinating Committee (PRCC) Hatchery Subcommittee¹ as required by the Biological Opinion issued by NMFS on the Interim Protection Plan for Operation of the Priest Rapids Hydroelectric Project FERC Project No. 2114 (NMFS 2004). The HGMP has been purposely delayed by Grant PUD and the resource co-managers in order to solicit and incorporate public involvement in the program. Once completed, the HGMP is expected to be submitted to NMFS for consideration under the ESA and the National Environmental Policy Act (NEPA) prior to the expiration of this permit.

Supplementation activities authorized by this permit will include:

- Collection of eggs or fry from the White River to rear in captivity to adult to use as broodstock;
- Transfer of eggs or fish between Federal, state, and private hatchery facilities as necessary to successfully rear fish to the yearling smolt stage;
- Rearing and propagation from the fertilized egg through the yearling smolt life stage at Federal, state, and private hatchery facilities;
- Acclimation for up to eight weeks of pre-smolts in the White River basin;
- Release of juvenile spring Chinook salmon into the White River in Chelan County, Washington;
- Monitoring of the programs in the hatchery environment using standard techniques such as growth and health sampling; and
- Monitoring of the programs in the natural environment using standard techniques such as juvenile fish traps and adult spawner surveys.

Permit Holders means any of the three permit holders and any employee, contractor, or agent of any of the permit holders.

The Permit Holders must ensure that listed species are taken only at the levels, by the means, in the areas, and for the purposes stated in the permit application, and according to the terms and conditions in this permit.

¹ PRCC voting members are NMFS, Grant PUD, WDFW, YN, the Confederated Tribes of the Colville Reservation, and the U.S. Fish and Wildlife Service.

This permit also authorizes the Permit Holders annual incidental takes of ESA-listed threatened UCR steelhead, associated with broodstock collection activities, hatchery operations, juvenile fish releases from the program, and monitoring and evaluation activities.

A. Intentional Take

1. Endangered UCR spring Chinook salmon eggs or fry may be collected from the White River in Chelan County, Washington State, for captive rearing to the adult stage to be used as broodstock.
 - a. Up 1,500 eggs or fry of White River origin may be collected annually, to achieve the brood group target of 1,200 eggs or fry of White River lineage.
 - b. In order to maintain the genetic integrity of the White River Program if non-White River origin spring Chinook salmon are identified on the spawning grounds, then the egg collection target may be revised by NMFS based on specific relevant monitoring data for that spawning year to achieve the brood group target of 1,200 eggs or fry of White River lineage.
 - c. Hydraulic egg collection or fry trapping must be conducted by appropriately trained staff and supervised in the field by a journey level biologist.
2. Up to 150,000 endangered UCR spring Chinook salmon may be released into the White River as yearling pre-smolts.
 - a. Up to eight weeks prior to the target release date, yearling pre-smolts may be transported from the hatchery environment and placed into temporary ponds, net pens, or side channels in the White River basin to acclimate on White River water.
 - b. If acclimation is not feasible, at a minimum, yearling pre-smolts shall be tempered to White River water for at least two hours for every degree (Fahrenheit) difference between the rearing water at the hatchery facility and the receiving White River water.
3. The Permit Holders may capture, handle, and release up to 20 percent of the naturally produced spring Chinook salmon juveniles emigrating from the White River annually using standard juvenile fish trapping techniques such as rotary screw traps.
 - a. For the purposes of developing population estimates, the Permit Holders may apply marks (caudal fin clip) to the spring Chinook salmon juvenile prior to release.
 - b. For the purposes of monitoring natural fish emigration to the ocean, the Permit Holders may apply tags (e.g., coded-wire or passive integrated transponder (PIT) tags) to the spring Chinook salmon juvenile prior to release.
 - c. Lethal take may not exceed two percent of the fish captured.
4. The Permit Holders may capture, handle, and release up to 20 percent of the hatchery reared and released spring Chinook salmon juveniles emigrating from the White River annually to monitor the supplementation program.
 - a. Trap(s) may not be operated during periods when large numbers of hatchery fish are expected to be moving through the trap location area.
 - b. Lethal take may not exceed two percent of the fish captured.

5. The Permit Holders may collect tissue samples from fish captured during juvenile emigration monitoring activities authorized above.
 - a. Tissue collection shall be minimized to the extent possible by using fin-clips applied for developing population estimates.
 - b. This tissue may be used for the investigation of reproductive success of naturally spawning hatchery and natural-origin spring Chinook salmon.
 - c. Collected tissue may be transferred to a laboratory approved by the PRCC Hatchery Subcommittee for micro-satellite DNA analysis.

B. Incidental Take

Incidental take of UCR steelhead may occur during the juvenile monitoring activities in the White River. This incidental take would be in the form of capture, handle, and release at a trap such as a rotary screw trap. Since little is known about UCR steelhead in the White River, any incidental encounter with juvenile UCR steelhead could provide valuable information to fish resource managers. To that end, the Permit Holders should collect basic biological data on UCR steelhead collected during the monitoring activities, and the following terms and conditions apply.

1. UCR steelhead encountered during monitoring activities shall be enumerated and sampled for basic biological data such as length, weight, and stage of smoltification.
 - a. The incidental take in the form of capture, handle, and release shall not exceed 20 percent of the White River tributary population.
 - b. If consistent with other authorized steelhead monitoring projects, tags or marks may be applied to steelhead captured in the White River.
 - c. Lethal take shall not exceed two percent of the trapped UCR steelhead.

C. Program Management and Operation Conditions

The following conditions address program management, fish handling, hatchery facility operations, and monitoring activities.

Captive Rearing of Broodstock (F_1 Generation)

1. The eggs or fry retained to rear in captivity for broodstock shall be marked and/or tagged for identification to the family level.
2. The fish retained to rear in captivity for broodstock may be reared in holding ponds, treated with antibiotics, and artificially spawned.
3. Sperm from males reared in captivity may be cryo-preserved for potential future use.
4. Carcasses of the ESA-listed fish spawned in captivity must either be distributed in the watershed of origin for nutrient enrichment if disease protocols, as determined by fisheries co-managers are met, donated for educational purposes, incinerated, or disposed of at waste disposal facilities.

Rearing and Release of the Progeny of Broodstock (F_2 Generation)

5. The eggs generated from spawning captive broodstock shall be incubated and juvenile fish shall be reared in captivity to achieve a yearling smolt release group of 150,000 fish.
6. If the annual number of eggs taken from the broodstock is substantially above the number needed to reach the 150,000 yearling smolt release target, then the eggs shall be reared to a size sufficient for marking or tagging. These fish may be released into the White River basin, provided that the estimated natural population rearing in the White River is not likely to exceed the production capacity of the White River based on monitoring information such as snorkel or redd surveys.
7. All artificially propagated UCR spring Chinook salmon juveniles shall be externally marked or tagged (i.e., visual implant elastomer tag or adipose fin clipped) or internally tagged (coded-wire or PIT tags) prior to release.
8. Measures shall be applied to ensure that artificially propagated UCR spring Chinook salmon yearlings are ready to actively migrate to the ocean with minimal delay.
 - a. To meet this condition, fish must be released at a uniform size and state of smoltification.
 - b. To prevent catastrophic mortality or to reduce the preponderance of chronic disease, variance from the yearling smolts-only release requirement may be pursued through agreement with the PRCC Hatchery Subcommittee.
 - c. Conditions such as flooding, water loss to raceways, or vandalism may warrant early release into appropriate environments after review by the PRCC Hatchery Subcommittee.
 - d. Any emergency release of UCR spring Chinook salmon covered under this permit shall be reported to NMFS within 48 hours.

General Conditions for Both Broodstock (F_1) and Progeny (F_2)

9. Fish in the hatchery environment shall be monitored to acquire meristic and morphological information through the course of rearing.
 - a. Adult broodstock may be sampled for otoliths, scales, or other tissues when dead.
 - b. Up to 60 juvenile fish from each annual brood group may be sacrificed to obtain otoliths for future reference and/or to obtain pertinent pathological or physiological information.
10. ESA-listed fish mortalities associated with capturing, handling, and transporting activities must not exceed five percent of the total fish collected.
11. The Permit Holders shall ensure that water intakes into artificial propagation facilities be properly screened in compliance with 1995 NMFS screening criteria and the 1996 addendum to those criteria (NMFS 1996).
12. The Permit Holders shall implement the "Salmonid Disease Control Policy of the Fisheries Co-managers of Washington State" (NWIFC and WDFW 1998) and Pacific Northwest Fish Health Protection Committee (PNFHPC 1989) guidelines to minimize the risk of fish disease

amplification or transfer and to ensure that artificially propagated fish would be released in good health.

13. The Permit Holders shall conduct hatchery operations and monitor hatchery effluent in compliance with applicable National Pollutant Discharge Elimination System (NPDES) (EPA 1999) permit limitations.

Natural Environment Activities

14. During egg collection activities great care shall be taken to avoid all unnecessary impacts to eggs that remain in the gravel.
15. During any activity in the White River basin, impacts on intact riparian habitat shall be minimized.
 - a. For example, the juvenile fish trap could be installed when snow is covering riparian vegetation such that plants are not actively growing.
 - b. Paths to access the river should not be wider than is necessary for one person to walk.
16. To the extent possible without imposing increased risk to listed species, the Permit Holders shall enumerate and identify marks and tags on all anadromous species encountered at juvenile trapping sites.
17. Each 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.
18. ESA-listed fish must be handled with extreme care and kept in water to the maximum extent possible during sampling and processing procedures. Adequate circulation and replenishment of water in holding units is required.
19. The transfer of ESA-listed fish must be conducted using equipment that holds water during transfer (e.g., sanctuary net or rubber boot).
20. ESA-listed juvenile fish must not be handled if the water temperature exceeds 69.8°F (21°C) at the capture site. Under these conditions, ESA-listed fish may only be identified and counted.
21. The Permit Holders shall monitor the incidence of, and minimize capture, holding, and handling effects on, listed salmon and steelhead encountered during trapping.
22. Visual observation protocols must be used instead of intrusive sampling methods whenever possible. This is especially appropriate when merely ascertaining the presence of anadromous fish.

23. The Permit Holders shall conduct spawning ground and carcass surveys to assess the distribution and impact of artificially propagated UCR spring Chinook salmon on the natural-origin spring Chinook salmon populations.

D. Reports and Annual Authorization

NMFS contact for all reports and notifications:

NMFS - Salmon Recovery Division
1201 NE Lloyd Blvd., Suite 1100
Portland, Oregon 97232
Phone: (503) 230-5409
Fax: (503) 872-2737

1. The Permit Holders must notify NMFS as soon as possible, but no later than two days, after any authorized level of take is exceeded or if such an event is likely (such as a mortality event of greater than 10 percent of the brood group). The Permit Holders must submit a written report detailing why the authorized take level was exceeded or is likely to be exceeded.
2. The Permit Holders must submit in writing any plans for future projects and/or changes in sampling locations or enhancement/research protocols and obtain approval from the PRCC Hatchery Sub-committee prior to implementation of such changes.
3. Each year, prior to the conduct of activities authorized under this permit, the Permit Holders must identify in writing and submit to NMFS the personnel designated to act under the authority of this permit and confirm their experience through resumes or other evidence of their qualifications.
4. The Permit Holders shall provide a written summary to NMFS, by December 15 of each year, of the projected number of fish to be released by location and identifying marks or tags for the coming year.
5. The Permit Holders 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 activities authorized under this permit. Notification should be made as soon as possible, but no later than two days after the unauthorized take. The Permit Holders must then submit a detailed written report of the non-permitted take. Pending review of these circumstances, NMFS may suspend enhancement/research activities.
6. The Permit Holders shall develop through the PRCC Hatchery Subcommittee the reporting responsibilities of each of the three joint Permit Holders. Final approval of report content, responsibilities, and reporting time lines shall be obtained from NMFS within six months of the issuance date of this permit. The following issues should be considered for required reporting:
 - a. Frequency of reports (i.e., monthly and/or annually)
 - b. Report content

- i. *Within Hatchery Environment Monitoring Reporting*
 - (1) The numbers, pounds, dates, tag/mark information, and locations of fish releases;
 - (2) Standard survival benchmarks within the hatchery environment as defined by the PRCC Hatchery Subcommittee;
 - (3) Monitoring activities that occur within the hatchery environment;
 - (4) Coefficient of variation around the average (target) release size immediately prior to their liberation from the acclimation sites as an indicator of population size uniformity and smoltification status;
 - (5) Any problems that may have arisen during conduct of the authorized activities;
 - (6) A statement as to whether or not the activities had any unforeseen effects; and
 - (7) Steps that have been and will be taken to coordinate the research or monitoring with that of other researchers.
- ii. *Natural Environment Monitoring Reporting*
 - (1) Annual adult return information shall include estimates of the number and proportion of artificially propagated fish on the spawning grounds;
 - (2) The number and location of artificially propagated adults that were recovered outside the release areas (e.g., in fisheries or strays to other rivers);
 - (3) Total redd counts in the White River;
 - (4) Carcass recovery summary which includes sex, origin, recovery location, age, and stock data;
 - (5) Summary of all activities monitoring juvenile UCR spring Chinook salmon in the natural environment including White River population estimate; species composition of trapped fish;
 - (6) Biological sampling conducted on artificially propagated and natural-origin juveniles in the natural environment;
 - (7) Injuries or mortalities of listed species that result from monitoring activities; and
 - (8) Any other information deemed necessary for assessing the program defined by the PRCC Hatchery Subcommittee.
- iii. *Format of report*
 - (1) Written
 - (2) Oral presentation

- 7. The Grant PUD shall assume the lead, and work in coordination with the other joint Permit Holders and the PRCC Hatchery Subcommittee, in developing the long-term HGMP for the Upper Columbia River Spring Chinook Salmon White River Supplementation Program and submit the HGMP to NMFS for consultation under the ESA prior to the expiration of this permit.

E. General Conditions

- 1. The Permit Holders, in effecting the take authorized by this Permit, are 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.

2. The Permit Holders are 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.
3. The Permit Holders, personnel, or designated agent acting on the Permit Holders' 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.
4. The Permit Holders 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 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. In addition, before taking ESA-listed species in the territorial waters of a foreign country, the Permit Holders must secure consent from, and comply with the appropriate laws of, that country.
6. Any personnel of the Permit Holders requiring Federal or state licenses to practice their profession must be duly licensed under the appropriate law.
7. 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 Holders' activities.
8. The Permit Holders 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 Permit Holder's records and facilities if such records and facilities pertain to ESA-listed species covered by this permit or NMFS's responsibilities under the ESA.
9. The Permit Holders are 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 Holders maintain authority and responsibility of 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.
10. The Salmon Recovery Division, Northwest Region, NMFS, may amend the provisions of this permit after reasonable notice to the Permit Holders.
11. 50 CFR Section 222.23(d)(8) allows NMFS to charge a reasonable fee to cover the costs of issuing permits under the ESA. The fee for this permit has been waived.

12. NMFS may revoke this permit if the activities are not carried out in accordance with the conditions of the permit and the purposes and requirements of the ESA, or if NMFS otherwise determines that the findings made under section 10(d) of the ESA no longer hold.

13. Any falsification of annual reports or records pertaining to this permit is a violation of this permit.

F. Penalties and Permit Sanctions

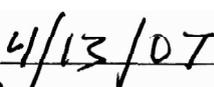
1. Any person who violates any provision of this permit is subject to civil and criminal penalties, permit sanctions, and forfeiture as authorized under the ESA and 15 CFR part 904 [Civil Procedures].

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.

G. Signatures

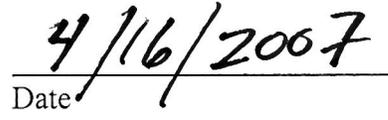


D. Robert Lohn
Regional Administrator

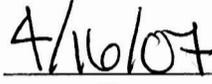


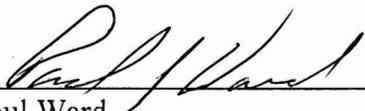
Date


Tom Dresser
Public Utility District No. 2 of Grant County


Date


Heather Bartlett
Washington Department of Fish and Wildlife


Date



Paul Ward
Confederated Tribes and Bands of the Yakama Nation



Date

G. References

GPUD (Public Utility District No. 2 of Grant County). 2006. Application for Permit for Scientific Purposes and to Enhance the Propagation or Survival of Listed Species Under the Endangered Species Act of 1973. Grant PUD. Ephrata, Washington.

EPA (Environmental Protection Agency). 1999. National Pollutant Discharge Elimination System (NPDES) Permit Program. Available at <http://www.epa.gov/owm/gen2.htm>.

NMFS (National Marine Fisheries Service). 1996. Juvenile fish screen criteria for pump intakes. Available at <http://www.nwr.noaa.gov/1hydrop/pumpcrit1.htm>.

NWIFC (Northwest Indian Fisheries Commission) and WDFW (Washington Department of Fish and Wildlife). 1998. Salmonid disease control policy of the fisheries Co-managers of Washington state. Formally adopted on March 17, 1998. Fish Health Division, Hatcheries Program. Washington Dept. Fish and Wildlife, Olympia, Washington.

PNFHPC (Pacific Northwest Fish Health Protection Committee). 1989. Model comprehensive fish health protection program. 19 pp.