

**NATIONAL MARINE FISHERIES SERVICE
SECTION 10(a)(1)(B) PERMIT FOR TAKES OF
ENDANGERED/THREATENED SPECIES**

Permit Number: 1347
Permit Type: Incidental Take (artificial propagation of unlisted salmon)
Expiration Date: *October 22, 2013*

Joint Permit Holders:

Washington Department of Fish and Wildlife
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Authorization:

The Washington Department of Fish and Wildlife (WDFW), the Public Utility District No. 1 of Chelan County (Chelan PUD), and the Public Utility District No. 1 of Douglas County (Douglas PUD) are hereby authorized to take endangered Upper Columbia River (UCR) steelhead (*Oncorhynchus mykiss*) and endangered UCR spring chinook salmon (*O. tshawytscha*) as a result of artificial propagation programs for the enhancement of UCR steelhead, as cited in the WDFW application and the *Anadromous Fish Agreement and Habitat Conservation Plan (HCP) Wells Hydroelectric Project FERC License No. 2149* with Douglas PUD for the operation of Wells Dam (DPUD 2002), the *Anadromous Fish Agreement and Habitat Conservation Plan Rocky Reach Hydroelectric Project FERC License No. 2145* (CPUD 2002a) with Chelan PUD for the operation of Rocky Reach Dam, and the *Anadromous Fish Agreement and Habitat Conservation Plan Rock Island Hydroelectric Project FERC License No. 943* with Chelan PUD for the operation of Rock Island Dam (CPUD 2002b), subject to the provisions of Section 10(a)(1)(B) of the Endangered Species Act (ESA) of 1973 (16 U.S.C. §§ 1531-1543), NOAA's National Marine Fisheries Service (NMFS) regulations governing ESA-listed species permits (50 CFR Parts 222-226), and the conditions hereinafter set forth.

Abstract:

This permit authorizes the WDFW, the Chelan PUD, the Douglas PUD annual incidental take of adult and juvenile, endangered, naturally produced and artificially propagated, UCR spring chinook salmon and UCR steelhead of ESA-listed species associated with the implementation of non-ESA-listed salmon artificial propagation programs in the UCR region. The programs are intended to supplement naturally spawned unlisted summer chinook salmon, fall chinook salmon, and sockeye salmon (*O. nerka*) production occurring upstream from the vicinity of Priest Rapids Dam on the mainstem Columbia River, including the mainstem Columbia River and the Wenatchee, Methow, and Okanogan Rivers and their tributaries.

The artificial propagation programs exist to mitigate for lost salmon, or lost salmon productivity, resulting from the construction and operation of hydroelectric dams on the mainstem Columbia River. With the exception of the Priest Rapids fall chinook salmon program, all of the programs authorized in this permit are required mitigation in the three long-term HCP agreements mentioned above. The artificial propagation programs may lead to incidental take of migrating ESA-listed adult spring chinook salmon and steelhead during unlisted salmon broodstock trapping activities, and incidental take of rearing and emigrating ESA-listed juvenile spring chinook salmon and steelhead resulting from the release of artificially-propagated unlisted salmon juveniles into the natural environment, and during monitoring and evaluation activities of the hatchery programs that occur in the natural environment. Limitations on unlisted adult salmon broodstock collection locations and timing; limits on the number, timing, and location of juvenile salmon releases; and operational guidelines applied to minimize the risks of disease transmission, water quality impairment, and fish loss through hatchery fish screening or water withdrawals for facility operations are some strategies that the WDFW, the Chelan PUD, and the Douglas PUD will employ to minimize risks to listed fish. Unlisted salmon survival and straying levels will be monitored through externally marking hatchery fish, and/or through internal coded wire or passive integrated transponder (PIT) tagging of a representative proportion of annual juvenile fish releases.

The Chelan PUD and the Douglas PUD, as joint permit holders with the WDFW, have specific conditions relating to their involvement and obligation under the HCPs and the permit. The WDFW as the primary operator of the hatchery facilities and as a managing agency of the fish resources of the state, also has specific conditions and responsibilities. The failure of one permit holder to satisfy their conditions may result in the loss of take authorization for all permit holders. Thereby, an interdependent and cooperative relationship should be encouraged in carrying out the authorized activities.

Unlisted salmon artificial propagation program activities will include:

- The collection of broodstock through trapping operations at: Wells Dam for Methow and Okanogan River summer chinook salmon populations, Wells Hatchery for summer chinook salmon releases from Wells and Turtle Rock hatcheries, Dryden and Tumwater Dams for Wenatchee River summer chinook salmon and Wenatchee sockeye salmon, and Priest Rapids Hatchery for Priest River hatchery-origin fall chinook salmon.

- The holding and artificial spawning of collected adults at Wells, Eastbank, and Priest Rapids Hatcheries, and Lake Wenatchee Net Pens.
- The incubation and propagation from the fertilized egg through the fingerling, pre-smolt or smolt life stage at the Wells, Eastbank, and Priest Rapids Hatchery complex facilities.
- The transfer of summer chinook salmon and sockeye salmon fingerlings or pre-smolts from the hatcheries for rearing at facilities in the Wenatchee, Methow, and Okanogan Rivers' watersheds, and to net-pens in Lake Wenatchee.
- The release of summer chinook salmon, fall chinook salmon, and sockeye salmon smolts into the Wenatchee, Methow, and Okanogan Rivers' basins, and into the mainstem Columbia River from the hatcheries, acclimation ponds, and net-pens on those systems.
- The monitoring and evaluation of these artificial propagation programs in the natural environment through activities such as redd counts and carcass surveys, and formal monitoring and evaluation plans to be developed by the HCP Hatchery Committees as called for in the HCPs.

A. Take Description and Levels

This permit is for activities to be conducted over a period of approximately ten years. Annual takes listed below are subject to the annual authorization process (see Section D - Reports and Annual Authorization) during the period that this permit is valid.

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 purpose stated in the permit applications, and according to the Terms and Conditions in this permit.

Incidental takes of ESA-listed species associated with 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 River system and tributaries, and the operational complexities of hatchery actions, determining precise incidental take levels of ESA-listed species attributable to the hatchery activities is not possible at present. The existence of concurrent WDFW broodstock collection programs for listed steelhead at Wells Dam, Dryden Dam, and Tumwater Dam (previously authorized by NMFS through Section 10 direct take Permit 1395), and for listed spring chinook salmon at Tumwater Dam (previously authorized by NMFS through Section 10 direct take Permit 1196), further complicates the ability to identify incidental take occurring through the unlisted salmon programs.

In the absence of quantitative estimates of incidental take, NMFS will monitor fish release numbers/locations and limit broodstock collection operations, hatchery operational practices, and fish release practices to assure that incidental takes do not operate to the disadvantage of ESA-listed species. If NMFS determines that incidental takes due to the artificial propagation activities have the potential to operate to the disadvantage of ESA-listed species, the WDFW, the Chelan PUD, and the Douglas PUD must suspend the activities that result in the incidental takes until a reasonable solution is achieved, this permit is amended, and/or the programs are reevaluated under Section 7 of the ESA.

B. Production Levels

The following conditions address the production levels limits of unlisted chinook salmon and sockeye salmon.

1. The WDFW shall limit annual production of sockeye salmon for release into Lake Wenatchee to not exceed 200,000 yearling juveniles released in August through November. These juveniles shall be externally marked with an adipose fin-clip and internally tagged prior to release.
2. The WDFW shall limit annual production of Wenatchee summer chinook salmon for release into the Wenatchee River to not exceed 864,000 yearling juveniles released in April to May. These juveniles shall be externally marked with an adipose fin-clip and internally tagged prior to release.
3. The WDFW shall limit annual production of summer chinook salmon for release into the Methow River to not exceed 400,000 yearling juveniles released in April or May. These juveniles shall be externally marked with an adipose fin-clip and internally tagged prior to release.
4. The WDFW shall limit annual production of summer chinook salmon into the Similkameen River or Okanogan River to not exceed 576,000 yearling juveniles released in April or May. These juveniles shall be externally marked with an adipose fin-clip and internally tagged prior to release.
5. The WDFW shall limit annual production of summer chinook salmon for release into the Columbia River from Wells Hatchery to not exceed 320,000 yearling juveniles released in April, and 484,000 sub-yearling juveniles released in June. These juveniles shall be externally marked with an adipose fin-clip and internally tagged prior to release.
6. The WDFW shall limit annual production of summer chinook salmon for release from Turtle Rock Hatchery into the mainstem Columbia River to not exceed 200,000 yearling juveniles released in April, and 1,600,000 sub-yearling juveniles in June. The yearling juveniles shall be externally marked with an adipose fin-clip and internally tagged prior to release. At least 200,000 of the sub-yearling juveniles shall be externally marked with an

adipose fin-clip and internally tagged prior to release.

7. The WDFW shall limit annual production of fall chinook salmon for release into the Columbia River from Priest Rapids Hatchery to not exceed 6,700,000 sub-yearlings, released in June. At least a portion of the juveniles shall be externally marked with an adipose fin-clip and internally tagged prior to release.
8. In the event that circumstances, such as unanticipated, higher-than-expected fecundity, or high egg-to-fry survival rates, lead to the inadvertent possession of salmon substantially in excess (>110 percent) of program production levels specified above, then surplus eggs or fish shall be culled from the population in a manner consistent with achieving program goals.

C. Program Management and Operating Conditions

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

1. The Chelan PUD and Douglas PUD shall fund the specific elements of the artificial propagation programs objectives developed by the HCP Hatchery Committee, which may include contributing to the rebuilding and recovery of naturally reproducing populations in their native habitats, while maintaining genetic and ecologic integrity, and supporting harvest.
2. The Permit Holders are responsible for the actions of any individual operating under the authority of this permit. Such actions include capturing, handling, and releasing any ESA-listed species authorized to be incidentally taken by this permit.
3. 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, the Permit Holders must immediately cease such activity until an acceptable substitute procedure is identified and approved by NMFS Salmon Recovery Division.
4. Measures shall be applied to ensure that artificially propagated chinook salmon juveniles will be ready to actively migrate to the ocean when released. To meet this condition, fish must be released at a uniform size and state of smoltification that ensures that the fish will migrate seaward without delay. Variance from this smolts-only release requirement shall only be allowed in the event of an emergency, such as flooding, water loss to raceways, or vandalism, that necessitates early release of ESA-listed steelhead to prevent catastrophic mortality. Any emergency releases made by the action agencies shall be reported immediately to the NMFS Salmon Recovery Division.

5. The Permit Holders must allow any NMFS employee or representative to accompany field personnel while they conduct authorized activities.
6. The Permit Holders are responsible for obtaining all other Federal, State, and local permits/authorizations needed for the proposed activities.
7. The Chelan PUD and Douglas PUD shall be responsive to new information and technologies that are developed, and approved by the HCP Hatchery Committees, which may be considered and utilized in the monitoring and evaluation of the artificial propagation programs, where appropriate.
8. The Chelan PUD and Douglas PUD shall fund artificial propagation program monitoring and evaluation consistent with the HCPs, the general objectives and guidelines listed for in the Biological Assessment and Management Plan (BAMP), this Opinion, and as determined by the HCP Hatchery Committees.
9. The WDFW shall operate and manage the artificial propagation programs including following impact minimization measures as proposed in the Section 7 Biological Opinion on the issuance of this permit.
10. 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 adult and juvenile trapping sites. This information shall be included in either an annual brood program report or a monitoring and evaluation report submitted to NMFS.
11. In trapping operations directed at the collection of broodstock, the Permit Holders shall apply measures that minimize the risk of harm to listed salmon and steelhead. These measures include, but are not limited to: limitations on the duration (hourly, daily, weekly) of trapping in mainstem river areas to minimize capture and handling effects on listed fish; limits on trap holding duration of listed fish prior to release; application of procedures to allow safe holding, and careful handling and release of listed fish; and allowance for free passage of listed fish migrating through trapping sites in mainstem and tributary river locations when those sites are not being operated.
12. All traps that have the potential to incidentally capture listed UCR spring chinook salmon or UCR steelhead when they are operated must be checked and have all trapped fish removed at least daily.
13. If water temperature at adult trapping sites exceeds 21°C (69.8°F), the trap operation shall cease, pending further consultation with NMFS to determine if continued trap operation poses substantial risk to ESA-listed species that may be incidentally encountered.

14. The Permit Holders shall monitor the incidence of, and minimize capture, holding, and handling effects on, listed salmon and steelhead encountered during trapping. The WDFW shall carefully handle and immediately release upstream incidentally captured listed UCR spring chinook salmon and steelhead adults that are not intended for use as broodstock in concurrently operated and otherwise authorized listed stock recovery programs.
15. The Permit Holders shall limit operation of Wells Dam east and west ladder traps to no more than three days per week from July through November. If both traps are operated, they shall be operated concurrently, operating on the same three days each week. When operating, active trapping may occur up to 16 hours per day. The ladder shall be open to passage at night for listed steelhead.
16. The Permit Holders may operated Dryden Dam right and left bank traps up to 7 days per week to collect summer chinook broodstock from July through August. Incidental take of UCR steelhead shall not exceed 11 steelhead. Steelhead capture and handling authorized under permit 1395 will not count toward this incidental take limit.
17. The Permit Holders shall limit operation of Tumwater Dam trap for the collection of sockeye salmon broodstock to no more that three days per week, beginning after the sockeye migration peak at Rock Island Dam, but no earlier that July 15.
18. The WDFW shall collect fall chinook salmon adults volunteering to the Priest Rapids Hatchery trap as the primary means for obtaining broodstock for the Priest Rapids Hatchery program.
19. The WDFW may collect fall chinook broodstock at Priest Rapids Dam ladder trap as a secondary broodstock collection site. The incidental take of UCR steelhead shall not exceed 10 steelhead. Steelhead encountered during otherwise authorized activities, such as UCR steelhead run monitoring, authorized under permit 1395 shall not count toward this take limit.
20. The Permit Holders shall ensure that water intakes into artificial propagation facilities be properly screened in compliance with 1995 NMFS screening criteria and as per the 1996 addendum to those criteria (NMFS 1996). As an alternative, they shall comply with transitional criteria set forth by NMFS in 1999 for juvenile fish screens constructed prior to the establishment of the 1995 criteria (NMFS 1996), to minimize risks to listed salmon and steelhead. The Permit Holders shall inspect and monitor the water intake screen structures at their hatchery facilities to determine if listed salmon and steelhead are being drawn into the facility; the results of this monitoring shall be included in annual reports to NMFS.

21. 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 and transfer, and to ensure that artificially propagated fish would be released in good health.
22. 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.
23. 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.
24. The WDFW shall monitor and report Priest Rapids Hatchery fall chinook salmon contribution to natural spawning in the Hanford Reach, and straying levels to other Columbia River Basin watersheds, including mainstem river reaches upstream of Wanapum Dam. Information regarding contribution to natural spawning and straying to natural areas will be included in the annual report for the program.
25. The Permit Holders must coordinate with other co-managers and researchers to ensure that no unnecessary duplication and/or adverse cumulative effects occur as a result of the Permit Holders' activities. This coordination shall include, but is not limited to, the HCP Hatchery Committees.
26. The Permit Holders may conduct spawning ground and carcass surveys to assess the distribution and impact of artificially propagated salmon on the natural-origin populations.

D. Reports and Annual Authorization

NMFS contact for all reports: NMFS - Salmon Recovery Division
525 NE Oregon Street, Suite 510
Portland, Oregon 97232
Phone: (503) 230-5407
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. 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 shall update and provide to NMFS by December 15 of each year, the projected hatchery releases by age class and location for the coming year.
3. The Permit Holders shall provide annual reports that summarize numbers, pounds, dates, tag/mark information, locations of artificially propagated fish releases, and monitoring and evaluation activities that occur within the hatchery environment, and adult return numbers to the UCR basin for each program. The Permit Holders shall ensure collection and reporting of the 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. Reports shall also include any preliminary analyses of scientific research data, any problems that may have arisen during conduct of the authorized activities, a statement as to whether or not the activities had any unforeseen effects, and steps that have been and will be taken to coordinate the research or monitoring with that of other researchers. Unless otherwise noted in the specific terms and conditions, the reports shall be submitted by January 31 of the year following release (i.e., brood year 2002, release year 2003, report due January 31, 2004) to NMFS.
4. The Permit Holders must provide plans for future projects and/or changes in sampling locations or enhancement/research protocols and obtain approval from NMFS prior to implementation of such changes.
5. Adult return information shall include the most recent annual estimates of the number and proportion of artificially propagated fish on the spawning grounds, and the number and location of artificially propagated adults that were recovered outside the release areas. Adult return information and results from monitoring and evaluation activities outside the hatchery environment should be included in the annual report or a separate report. If a separate report on monitoring and evaluation activities conducted outside the hatchery environment is prepared, it shall be submitted by August 31, of the year following the monitoring and evaluation activities (i.e., surveys conducted in 2003, report due August 31, 2004) to NMFS.
6. The Chelan PUD and Douglas PUD, in coordination with the HCP Hatchery Committees, shall develop five-year monitoring and evaluation plans for the hatchery programs that are updated every five years. The first monitoring and evaluation plans shall be completed within one year of the issuance of the FERC order incorporating the HCPs into the hydroproject operation licenses. Existing monitoring and evaluation programs shall continue until replaced by the HCP Hatchery Committees.
7. The Chelan PUD and Douglas PUD shall assume the lead, and work in coordination with the HCP Hatchery Committees, in developing the ten-year hatchery program reviews and directing the development of annual summary reports. The program reviews will determine if egg-to-fry and smolt-to adult survival rates, and other appropriate hatchery program goals and objectives of the HCPs and the ESA Section 10 permits, have been met or if sufficient progress is being made towards their achievement. This review shall

include a determination of whether artificially propagated production objectives are being achieved.

8. The WDFW shall develop annual broodstock collection and spawning protocols for the sockeye salmon and chinook salmon artificial propagation programs. Protocols should be coordinated with the co-managers and HCP Hatchery Committees and must be submitted to NMFS by April 15 of the collection year.
9. The Permit Holders must report the take of any ESA-listed species not included in this permit or authorized under a separate ESA permit, when it is killed, injured, or collected during the course of enhancement/research activities. 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.

E. Penalties and Sanctions

1. The persons actually doing the activity must have a copy of this permit while conducting the authorized activities.
2. The Permit Holders may not transfer or assign this permit to any other person as defined in Section 3(12) of the ESA. This permit ceases to be in effect if transferred or assigned to any other person without NMFS' authorization.
3. If a Permit Holder violates any permit term or condition, they will be subject to any and all penalties provided by the ESA.
4. The Permit Holders, in effectuating 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.
5. The NMFS Salmon Recovery Division may amend the provisions of this permit after reasonable notice to the Permit Holders.
6. 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.
7. Any falsification of annual reports or records pertaining to this permit is a violation of this permit.
8. 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.

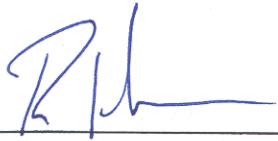
F. Signatures

D. Robert Lohn

D. Robert Lohn
Regional Administrator

10/02/03

Date

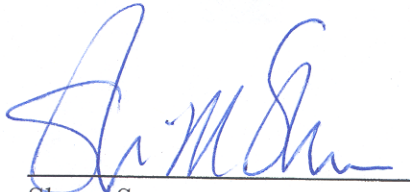


Ross Fuller

Washington Department of Fish and Wildlife

10/27/03

Date



Shaun Seaman

10-30-03

Date

Public Utility District No. 1 of Chelan County

W C Dobbins

William C. Dobbins

10-30-03

Date

Public Utility District No. 1 of Douglas County

G. References

- CPUD (Public Utility District No. 1 of Chelan County). 2002a. Anadromous fish agreement and habitat conservation plan: Rocky Reach Hydroelectric Project, FERC license No. 2145. Chelan PUD. Wenatchee, Washington.
- CPUD. 2002b. Anadromous fish agreement and habitat conservation plan: Rock Island Hydroelectric Project, FERC license No. 943. Chelan PUD. Wenatchee, Washington.
- DPUD (Public Utility District No. 1 of Douglas County). 2002. Anadromous fish agreement and habitat conservation plan: Wells Hydroelectric Project, FERC license No. 2149. Douglas PUD. East Wenatchee, 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.