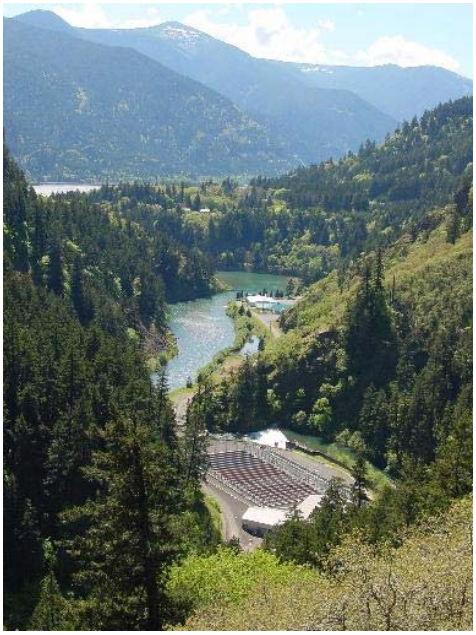
U.S. Fish & Wildlife Service 2008

Hatchery Update

Little White Salmon National Fish Hatchery



About Little White Salmon National Fish Hatchery

The Little White Salmon National Fish Hatchery (NFH) was established in 1896 and is the oldest federal hatchery on the Columbia River. Congressional authorization was based on the intent to supplement the commercial fishing industry. The hatchery's role expanded during the 1930's with the enactment of the Mitchell Act and further amendments in 1946. The Mitchell Act was enacted to mitigate for fisheries lost due to the construction and operation of Columbia River hydroelectric projects.

The hatchery is located 12.5 miles east of Stevenson, Washington, off State Highway 14, Columbia River mile 162. The hatchery is located on 410 acres of Service land.

Rearing facilities at the Little White Salmon NFH include 9 – 8' X 79' covered raceways, 22 – 10' X 110' open raceways, 2 – 10' X 235' open raceways, and 1 – 41' X 150' acclimation pond. The total nursery capacity is 11.25 million eggs.

Little White Salmon NFH became the first hatchery in the Nation to receive the U.S. Fish and Wildlife Service Environmental Leadership Award in 2004.

Hatchery Mandates

Little White Salmon NFH operations ensure that the U.S. Fish & Wildlife Service meets mandated Treaty Trust responsibilities. The current production program is guided by specific fish production goals identified in the Columbia River Fish Management Plan. This plan was developed as a result of the *U.S. v Oregon* agreement, to address Native American fishery concerns. Fish production goals include:

- 1,000,000 yearling spring Chinook salmon released on site.
- 150,000 endangered White River spring Chinook for transfer as presmolts for acclimation and release into the White River.
- 4,500,000 subyearling upriver bright (URB) fall Chinook salmon released on site.
- 1,700,000 subyearling URB fall Chinook salmon released off site on the Yakama Indian Reservation as part of mitigation for John Day Dam and to restore this stock to historic levels.
- 4,500,000 URB fall Chinook salmon eggs for transfer to the Yakama Nation Klickitat Hatchery.
- 1,700,000 subyearling tule fall Chinook salmon released on site.
- 3 year classes of endangered White River captive brood stock for spawning, second generation juvenile production, and to prevent the extinction of this population of fish.

Cultural Values

The Columbia River Treaty Tribes (Yakama Nation, Confederated Tribes of the Warm Springs Reservation of Oregon, Nez Perce, and Confederated Tribes of the Umatilla Indian

Reservation) share the in-river harvest of spring Chinook, URB fall Chinook, and coho returning to the Little White Salmon NFH. Surplus fish are provided to the Yakama Nation to support the tribal nutrition program and for ceremonial use. The cultural significance of these fish to the tribes is best characterized by the following quotation:

"Salmon was presented to me and my family through our religion as our brother. The same with the deer. And our sisters are the roots and berries. And you would treat them as such. Their life to you is just as important as another person would be."
Margaret Saluskin, Yakama Nation, Columbia River Inter-Tribal Fish Commission.

Adult Escapement Goals

A total of 3,862 adult URB fall Chinook salmon and 967 spring Chinook salmon are necessary to collect enough eggs for full production at the facility and to meet additional egg requests as mandated in the Columbia River Fish Management Plan.

Coded-Wire Tag Marking Program

Marking of fish using an adipose fin clip and/or coded-wire tagging technology makes determining survival rates and contribution of salmon to the various fisheries in and out of the Columbia River possible. At present all spring Chinook salmon are fin clipped with 75,000 being coded-wire tagged. This mass marking of spring Chinook complies with selective fisheries management practices now instituted for hatchery releases into the Columbia River.

Starting with the 2005 URB fall Chinook salmon, fall Chinook salmon releases from the hatchery are 100% adipose fin clipped and a portion are additionally coded-wire tagged to access survival and fisheries contribution. This change from past URB fall Chinook salmon releases represents an effort to mark all hatchery salmon reared and released into the Columbia River. This marking effort is dependent on annual funding and equipment availability.

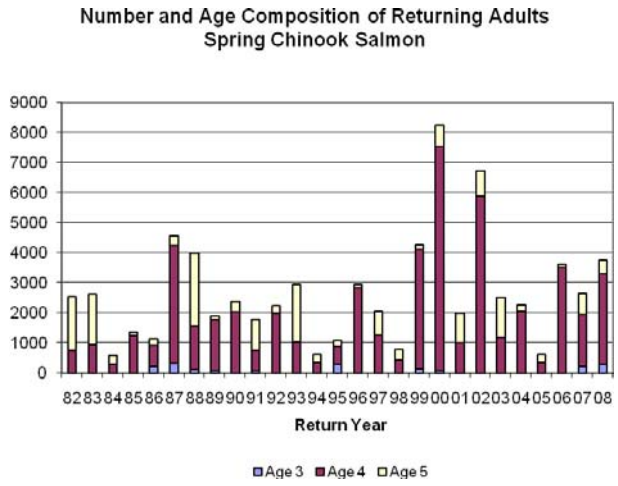
Both spring and fall Chinook salmon released on station include a representative PIT (passive integrated transponder) tag to provide real-time harvest management in the Columbia River and Drano Lake. A total of 15,000 spring Chinook salmon and 25,000 URB fall Chinook salmon received PIT tags during 2008.

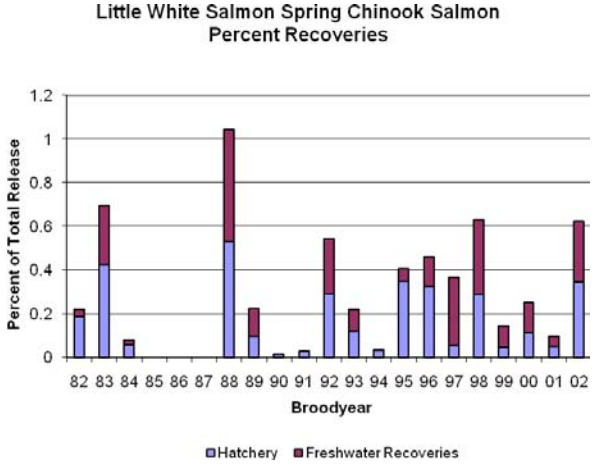
Sampling of Returning Fish

A proportion of returning adults are sampled at each hatchery. Sex and length are recorded and scales are collected to determine age. By using sample information and the number of returning fish, it is possible to calculate the number of returning fish for each age group and, consequently, the number of fish returning from each brood year or release year.

Spring Chinook Salmon

Most returning adult spring Chinook salmon return as 4 year olds. Almost all spring Chinook are harvested in fresh water in the Columbia River. The majority are harvested in the sport fishery in Drano Lake, just below the hatchery. Washington Department of Fish and Wildlife estimates that 1,787 adult spring Chinook salmon were harvested by sport fisherman in Drano Lake this year and the Yakama Nation reported a total of 7,004 adult spring Chinook salmon harvested by tribal fisherman.



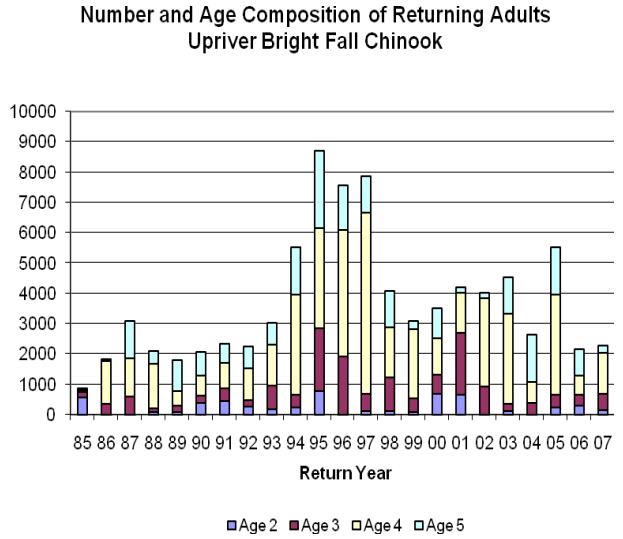


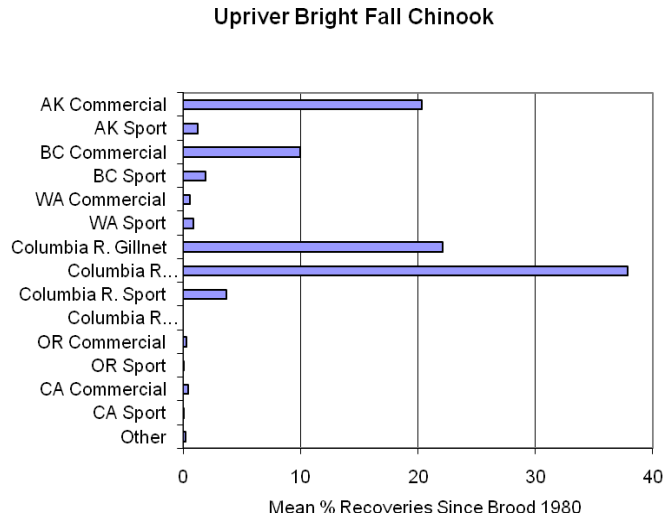
Reprogramming of Spring Creek NFH and Role of Little White Salmon NFH

In October 2008, a Memorandum of Agreement was signed by the Service, Bonneville Power Administration, U.S. Army Corps of Engineers, and the National Marine Fisheries Service to implement changes in fish production at Federally-funded mitigation hatcheries in the Columbia River Gorge. The Agreement eliminated the need to request spill at Bonneville Dam for fish passage during the March release of Spring Creek NFH tule fall Chinook salmon smolts. The Agreement moved a portion of Spring Creek National Fish Hatchery production to Bonneville Hatchery and moved additional production of upriver bright fall Chinook salmon into the Columbia River Gorge. Little White Salmon National Fish Hatchery plays a role in the newly signed Agreement and will acclimate and release 1.7 million tule fall Chinook salmon in April and an additional 2.5 million upriver bright fall Chinook salmon in June. These additional fish releases at Little White Salmon NFH will be implemented through 2011..

Upriver Bright Fall Chinook

Most URB fall Chinook salmon return and are harvested at age 4. These fish have contributed to commercial and sport fisheries along the west coast of the U.S. and Canada from Alaska to California. Commercial fisheries in Alaska, British Columbia and gillnet fisheries in the Columbia River harvest the majority of the fish. In 2006, Washington Department of Fish and Wildlife estimated 600 adults were harvested in the Drano Lake sport fishery. In 2006-2007, over 7,000 upriver bright fall Chinook salmon were harvested in the Drano Lake tribal fishery. Little White Salmon NFH production annually contributes significantly to the sport fisheries in the U.S. and Canada.





White River Partnership with Grant County PUD

A new multi-partner hatchery program at the Little White/Willard NFH Complex is part of an effort to save an endangered stock of fish from extinction. The endangered White River spring Chinook spawning aggregation is severely depressed and persistently experiences escapement levels below critical population thresholds. Using facilities at Little White Salmon National Fish Hatchery, this program shows that a traditional mitigation facility can be used in a multiple partner effort to support the recovery of endangered fish.

PUD No. 2 of Grant County (Grant County PUD), through the Priest Rapids Coordinating Committee – Hatchery Subcommittee, requested FWS assistance to rear fish for this recovery program. A NOAA-Fisheries Biological Opinion and recommendations to FERC regarding the relicensing of Priest Rapids and Wanapum Dams identified this recovery program as a responsibility of Grant County PUD. As a result, the Little White Salmon NFH program was broadened to include the holding of endangered first generation adult captive brood stock. These fish are spawned at the hatchery to produce second generation off-spring for rearing and release back into the White River. Also coordinated with the Washington Department of Fish and Wildlife, this multiple partner effort supports the wise use of a national fish hatchery program, supported by a scientifically sound fish propagation program with the goal of ultimately achieving the recovery of an endangered stock of fish. More importantly, this new partnership shows that a federal agency can assist a utility in meeting FERC mandated mitigation obligations, and that a traditional mitigation hatchery can be re-tooled to achieve endangered species recovery.

For more information, please contact:

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