



# Hatchery Update

## *Willard National Fish Hatchery*



### About Willard National Fish Hatchery

Willard National Fish Hatchery (NFH), established in 1952, is part of the Little White Salmon/Willard NFH complex. The Willard hatchery is located five miles north of Highway 14 up the west end of the Cook-Underwood Road on the Little White Salmon River.

### Mid-Columbia Coho Reintroduction: Willard NFH Coho for the Wenatchee River Basin

Willard NFH is currently an integral component of the Yakama Nation Mid-Columbia coho salmon reintroduction effort aimed at reestablishing self-sustaining populations of coho salmon in the Wenatchee River Basin of north central Washington. A total of 650,000 coho salmon, derived from a locally adapted stock of fish returning to and spawned on the Wenatchee River, WA, are reared at Willard NFH and transferred to the Wenatchee River watershed for acclimation and release by biologists from the Yakama Indian Nation. This partnership is a cost share production program with the goal of reintroducing extirpated coho salmon to the Wenatchee River Basin in north central Washington. By agreement, the Yakama Nation provides 60% of the operational costs at Willard National Fish Hatchery using Bonneville Power Administration funds while the Service contributes the remaining 40% with reimbursed Mitchell Act funds administered by NOAA-Fisheries.

Initially, lower Columbia River stock coho from Willard NFH were used for the reintroduction effort with the hope of transitioning to a more locally adapted stock in the future. This came to fruition in the early 2000's when sufficient adult coho returned to the Wenatchee River. Collected at Dryden Dam by Yakama Nation staff, eggs derived from these fish are now transferred to Willard NFH for hatching. The fish are reared over an 18-month period for transfer back to selected release sites within the Wenatchee and Methow River Basins by tribal staff.

This Service/Tribal partnership is more than just a harvest augmentation program. It exemplifies the use of evolving science to transition to locally adapted fish stocks that are at less risk for harmfully interacting with naturally spawning and endangered species act (ESA)-listed fish within the Basin. This became evident when the Mid-Columbia coho reintroduction effort received praise following review by the congressionally-mandated Hatchery Scientific Review Group and the Service's Hatchery Review Team. Both groups supported the science behind this Service/Tribal partnership and made no hatchery reform recommendations regarding this program at Willard NFH. Once again, coho salmon are returning to the waters of north central Washington due to the wise use of a Service hatchery in combination with tribal fish and habitat restoration efforts.



## Drano Lake Spring Chinook: Mitchell Act Funded Mitigation

A total of 400,000 spring Chinook are reared and released from Willard National Fish Hatchery with funds provided by the National Marine Fisheries Service under authority of the Mitchell Act. Adult fish returning to Drano Lake, an impoundment at the mouth of the Little White Salmon River, are the perfect example of a successful mitigation program. In this case, mitigation funding secured through the authority of the Mitchell Act is used to produce spring Chinook at both the Willard and Little White Salmon hatcheries for release into the Little White Salmon River and Drano Lake. These fish provide sport and tribal fisher harvest opportunity by mitigating for fisheries lost due to the construction and operation of large scale hydropower projects on the Columbia River.



Returning adult fish fuel an intensive sport fishery that also "shares the wealth" with a one-day per week tribal gillnet fishery. The Drano Lake fisheries focus effort on a hatchery produced stock of fish returning to a terminal area. Tribal gillnets are set in Drano Lake, reducing the potential incidental take of wild and ESA-listed fish in the mainstem Columbia River. In this case fish produced at a Mitchell Act funded mitigation hatchery allows harvest of hatchery fish in a tributary stream/lake (i.e. the terminal fishery) while minimizing impact to wild fish that migrate further up the Columbia River. Few hatchery programs can espouse the benefit of simultaneously providing both tribal harvest and a conservation opportunity.



## Endangered Species Recovery: A Partnership for the Future

Willard National Fish Hatchery plays a critical role in establishing future F1 captive broodstocks using eggs and fry collected from the White River (WA). The White River spring Chinook spawning aggregation is severely depressed and persistently experiences escapement levels below critical population thresholds. This population is within the Upper Columbia River Spring-run Chinook salmon ecologically significant unit (ESU) which is listed as Endangered (FR Vol. 64, No. 56, March 24, 1999). The goal of this program is to prevent the extinction of, conserve, and ultimately restore the naturally spawning White River spring Chinook salmon spawning aggregation (Wenatchee River watershed).

This recovery program has been incorporated into the mitigation responsibilities of Public Utility District No. 2 of Grant County (Grant County PUD) through their Biological Opinion (dated May 3, 2004). Grant County PUD, through the Priest Rapids Coordinating Committee – Hatchery Subcommittee, requested U.S. Fish & Wildlife Service (FWS) assistance to rear fish for this recovery program. Due to recent program changes at Willard NFH, the Little White Salmon/Willard NFH Complex had adequate space to assume responsibility for rearing up to 150,000 White River spring Chinook pre-smolts and multiple brood years of captive broodstock to assist with recovery efforts.

The White River spring Chinook captive brood program was initiated in 2008 at Willard NFH following the transfer of eggs pumped (collected) from wild fish redds on the White River in north central Washington. These fish will be reared to maturity in captivity, spawned, and the juvenile fish subsequently reared for future release back into the White River.

A portion of the Willard NFH nursery area was retrofitted with individual rearing tanks and isolation screening to quarantine and rear wild eggs and fry until fish health inspections are completed. Grant County PUD is fully reimbursing the FWS for fish production, fish health services, and marking to support this recovery program. As a result, in addition to the Little White Salmon/Willard NFH Complex, the Columbia River Fishery Resource Office and Lower Columbia River Fish Health Center provide support for the White River spring Chinook program. FWS involvement in the multi-partner White River spring Chinook program is aligned with ESA recovery objectives that are an essential component of the FWS mission. This has diversified a traditional mitigation facility to include the production of an ESA-listed stock to lead to recovery.

## Recovery Act at Work: Repair Shop Building for Seismic Requirements

The U.S. Fish and Wildlife Service awarded a \$93,631 contract under the American Recovery and Reinvestment Act to Burton Construction, a construction and general contracting company based in Spokane, Washington. Burton Construction will repair and modify the hatchery shop building to meet seismic standards; this project will create approximately four jobs.

In a recent evaluation of the hatchery's earthquake preparedness, the building was found to have serious structural deficiencies, including weakness and the cracking of structural, load-bearing masonry. This repair and modification is necessary to ensure the safety of employees and public visitors to the hatchery. In addition, seismic deficiencies were also noted in the building. Containing the main offices and 52 concrete indoor rearing tanks, hatchery staff spend a significant amount of time in this building. As a result, a contract was awarded in the amount of \$379,305 to correct seismic related safety hazards in the main hatchery building.



## Willard NFH Volunteers



The Willard Fish Hatchery volunteers are individuals who want to give back to their communities, who want to be good stewards of the land and set examples for others. They are concerned citizens of all ages who want to learn more about conservation, and are passionate people who enjoy the outdoors and want to spread the word about America's greatest natural treasures.

Volunteers at the Willard Hatchery contributed over 307 hours in 2010 performing a broad range of activities including lands and habitat work, facilities and grounds maintenance, and assisting with fish culture activities.



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