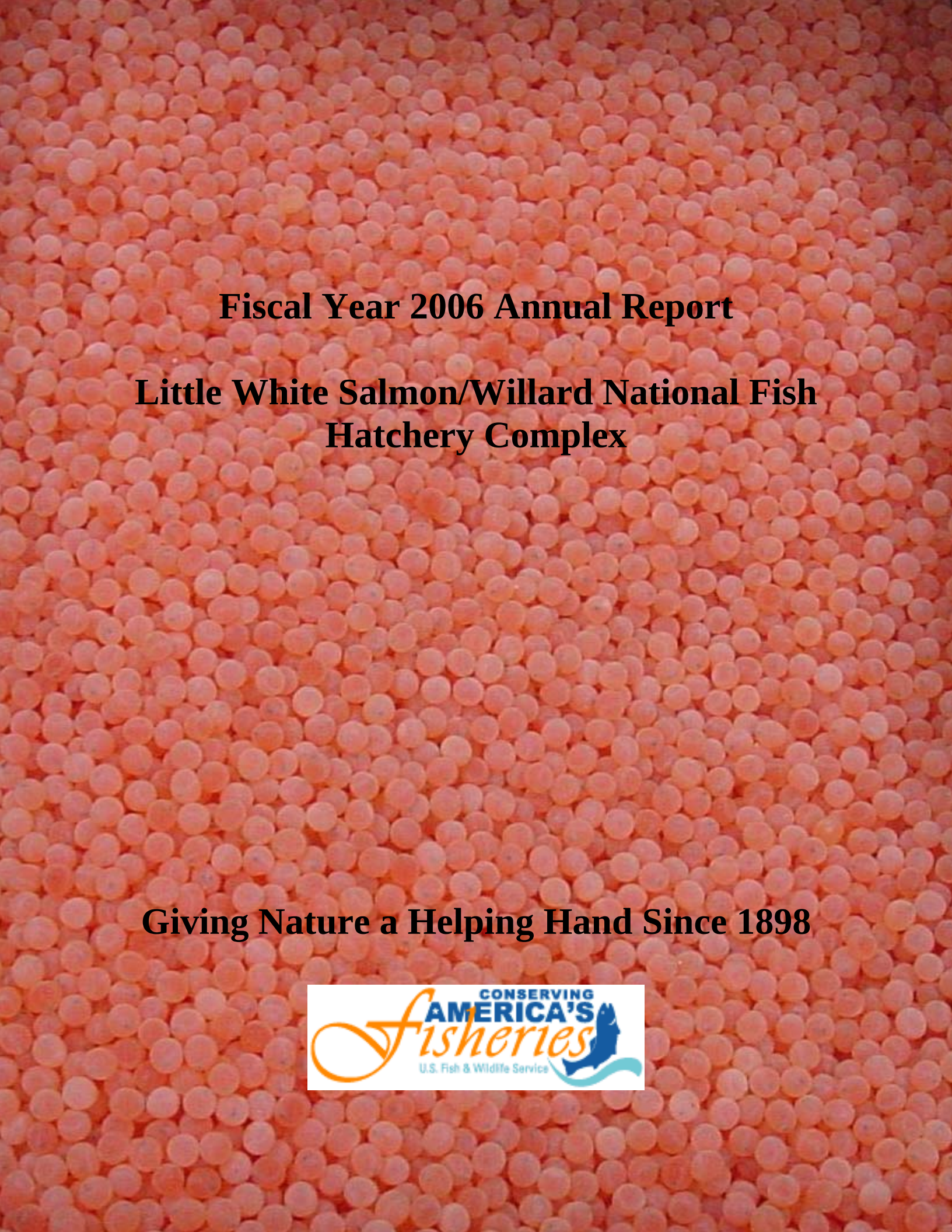


Fiscal Year 2006 Annual Report

Little White Salmon/Willard National Fish Hatchery Complex

Giving Nature a Helping Hand Since 1898

CONSERVING AMERICA'S fisheries
U.S. Fish & Wildlife Service

Giving Nature a Helping Hand Since 1898

The decline of Pacific salmon in the Columbia River Basin is the result of a series of events that have occurred over the last hundred years. Once the home to the most abundant run of salmon in the Pacific Northwest, the Columbia River system began to change with arrival of settlers from the East. By 1900, a fishery that once produced 18-24 million pounds of salmon for Native Americans in the region had been replaced by canneries and an annual commercial harvest that peaked in 1883 at 43 million pounds of fish. This intensive harvest combined with population growth, development, and habitat alterations led to a serious decline in Columbia River salmon stocks.

Little White Salmon

The Little White Salmon National Fish Hatchery (NFH) was established in 1898 (although production began in 1896 on an experimental basis) to address the decline of tule fall Chinook, the native salmon stock that returned to the Little White Salmon River. This site was selected since it was considered one of the principal spawning areas of the quinnat or Chinook salmon. Assistant U.S. Fish Commissioner William Ravenel, describing the significance of the hatchery site, noted in 1898 that *"During the season, the salmon appeared in such large numbers below the rack that the Indians often speared two and three at one cast of the spear."*

Ships used Drano Lake to access lumber flumes during the early 1900's.

The original hatchery was described as a rough wooden structure without a floor and lit by skylights. It was equipped with 50 troughs that were fed by water from a nearby stream. Other buildings included a mess-house and sleeping quarters for employees. Fall Chinook eggs were taken from adult fish that were captured in a downstream trap from mid-September through mid-October. It was noted in 1898 that the best "fishing" occurred at night about one hour after dark. Spawning began in the morning and continued until eggs had been removed from all ripe fish. Hatchery records indicate that an average 16.5 million eggs were taken annually between 1896 and 1915. These eggs were incubated in baskets, hatched and eventually released as fry. Once the fry were released the station was closed for the season. The cost of constructing and operating the hatchery during the first year was $2,288.27.

Profound changes occurred in hatchery operations during the next 50 years. While the hatchery continued to produce the native tule fall Chinook salmon, production was expanded to included chum, Coho, sockeye and spring Chinook salmon. The completion of Bonneville Dam was probably the most significant event of the time. Not only was the hatchery flooded by the rising Bonneville pool, but the average annual egg take of tule fall Chinook declined by 44%. The natural spawning grounds of this fish were lost as habitat at the mouth of the river was inundated by the Bonneville pool. Led by scientific advances in fish culture, the hatchery program continued to change in an attempt to reverse the decline of the native stock. Today hatchery reform initiatives including an evaluation of natural rearing techniques, incorporation of successful nature rearing techniques in the design of new raceways, mass marking and

coded wire tagging of fish to enhance monitoring and evaluation efforts, and implementation of strict fish health protocols have contributed to a very successful hatchery program.

The hatchery is located in south-central Washington on the Little White Salmon River approximately one mile upstream from the Columbia River. The Little White Salmon River joins the Columbia River at river mile 162. Drano Lake, a natural impoundment at the mouth of the river, is a popular sport and tribal fishing area. The hatchery encompasses 432.59 acres of land including easements. The Annual Report of Lands Under Control of the U.S. Fish & Wildlife Service (Service) as of September 30, 2003 shows that 211.39 acres were acquired by other federal agencies, 1.34 by devise or gift, 202.44 acres purchased by the Service, and 17.42 acres by agreement, easement or lease.

The Washington Department of Fish & Wildlife (WDFW) law enforcement office for the Columbia River Gorge is also located on the grounds of Little White Salmon NFH. In addition, five government residences are located on Chinook Drive approximately ½ mile from the hatchery area.

Willard

Construction began at Willard NFH in 1951. The Willard facility was authorized by an amendment to the Mitchell Act to mitigate for fisheries lost due to the construction and operation of hydroelectric dams on the Columbia River. The earliest reports available regarding the Willard hatchery indicate that it was planned and constructed as a fall Chinook salmon production facility. The extremely cold water temperatures characteristic of the Willard NFH rearing water supply proved to be too excessive for the rearing of fall Chinook but were adequate for the rearing of Coho and spring Chinook salmon. Located above an impassable natural waterfall, migrating adult salmon were unable to reach the Willard facility. Adult fish were collected and spawned at Little White Salmon and eggs shipped to Willard to initiate fish production. Co-located with the former Western Fish Nutrition Laboratory, this fish culture station was responsible for making significant early advances in fish nutrition. The laboratory building is now occupied by the U.S. Geological Survey (USGS) Columbia River Research Laboratory, a substation of the Western Fisheries Research Center, Seattle, WA. In 1975, the Little White Salmon NFH and Willard NFH were administratively combined to form the Little White Salmon/Willard NFH Complex (Complex). Administration of the Complex occurs at the Little White Salmon facility. Complex facilities are managed, staffed, and budgeted as a single organization.

Willard NFH is located on the Little White Salmon River approximately 5 miles upstream from the Little White Salmon facility. The hatchery includes 80.10 acres of land purchased by the Service, and an additional 3.70 acres acquired by agreement, easement, or lease. A laboratory and associated buildings are located on the hatchery grounds. These facilities are now occupied by the USGS, Columbia River Research Laboratory. In addition, nine government residences are located adjacent to the hatchery on Coho Loop.

Carson Depot Springs is a separate substation of the Little White Salmon/Willard NFH Complex. Located approximately 9 miles west of Little White Salmon NFH, this facility has a water supply and space for egg incubation. The U.S. Fish and Wildlife Service has an indefinite lease with Burlington Northern Railroad for use of this 55' X 100' land parcel. This area includes a spring water supply and a small building equipped with 50 -16 tray incubators for egg incubation. Carson Depot Springs historically had been used for incubation of Coho salmon eggs prior to shipment to Willard NFH and for various research activities requiring egg isolation (quarantine to prevent the spread of fish disease for eggs from outside the Little White Salmon River watershed). Rehab of the Little White Salmon NFH well during 1995 produced an adequate supply of groundwater for the early incubation of Willard NFH Coho salmon eggs. The termination of the Willard NFH Little White Salmon River-release Coho program in 2004 along with the additional groundwater available at the Little White Salmon facility precluded the need to use Carson Depot Springs in support of Willard operations. Experiments were initiated during 2004 to test the validity of using Carson Depot Springs for the expanded production of upriver bright fall Chinook, a new effort being negotiated by the U.S. *v* Oregon co-managers to reprogram both tule and upriver bright fall Chinook hatchery stocks above Bonneville Dam. The building was remodeled during 2005 in preparation for use during future fall Chinook reprogramming efforts to circumvent the cold water temperatures characteristic of Willard NFH.

Current Fish Production Program

The current program is funded primarily by authority of the Mitchell Act and fish production is accomplished with reimbursable funding received from the National Oceanic and Atmospheric Administration (NOAA) – Fisheries, although funding for this program has been relatively "flat" since 1996. The Complex also receives U.S. Army Corps of Engineers John Day Mitigation funds under a reimbursable agreement to provide fish as mitigation for John Day Dam. Additional Bonneville Power Administration funds are provided to rear fish for transfer to the Umatilla River, OR and Wenatchee River, WA in support of tribal restoration efforts. As a result, fish produced at the Complex are an important source of native fish for mitigating the impacts of hydroelectric projects on the Columbia River; providing sport, commercial and tribal fisheries; and for restoring extinct or depleted native stocks in the Columbia River Basin. These fish are also an important genetic reserve of native fishes of the region.

Endangered Species Recovery: A Partnership for the Future

A new multi-partner hatchery program at the Little White Salmon/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.

Public Utility District No. 2 of Grant County (Grant County PUD), through the Priest Rapids Coordinating Committee – Hatchery Subcommittee, requested Service assistance to rear fish for this recovery program. A NOAA-Fisheries Biological Opinion and recommendations to the Federal Energy Regulatory Commission (FERC) regarding the re-licensing of Priest Rapids and Wanapum Dams identified this recovery program as a responsibility of Grant County PUD. In addition, AquaSeed, Inc., a private hatchery, holds the White River captive broodstock to prevent the extinction of the few remaining adult fish. 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, considered a non-traditional partnership, shows that a federal

agency can assist a private enterprise in meeting FERC mandated mitigation obligations. Grant County PUD reimburses the Service for all costs associated with the production of White River spring Chinook at the Complex.

Endangered White River spring Chinook eggs, derived from captive broodstock, were shipped to Little White Salmon NFH for fertilization. in coolers.

Tribal Trust

Operation of both facilities assures that the U.S. Fish & Wildlife Service continues to meet mandated Treaty Trust responsibilities. The current Complex production program is guided by specific fish production goals identified in the Columbia River Fish Management Plan. A result of the U.S. *v* Oregon agreement, the U.S. District Court-ordered Columbia River Fish Management Plan was developed to address Native American fishery concerns. The Plan has expired and is currently being renegotiated by the Columbia River fishery co-managers. Fish production goals identified by the fishery co-managers include:

Little White Salmon NFH

- 1,000,000 yearling spring Chinook salmon released on site.
- 150,000 White River spring Chinook pre-smolts for transfer and acclimation in the White River to assist with an endangered species recovery effort.
- 2,000,000 sub-yearling upriver bright fall Chinook released on site.
- 1,700,000 sub-yearling upriver bright fall Chinook released off site on the Yakima Indian Reservation as part of mitigation for John Day Dam and to restore this stock to historic levels.

Willard NFH

- 650,000 yearling Coho salmon released off site in the Wenatchee River, Washington for the Yakama Indian Nation using locally adapted fish stocks. This joint Bonneville Power Administration and Mitchell Act-funded restoration effort has been implemented to restore an extinct stock of Coho salmon to the Wenatchee River Basin.
- 250,000 yearling spring Chinook released off site in the South Fork Walla Walla River to build adult returns to support restoration efforts conducted by the Confederated Tribes of the Umatilla Indian Reservation.
- 210,000 yearling spring Chinook salmon released on the Umatilla Indian Reservation using native, locally adapted fish stocks. This program terminates during spring 2007.

Significant Fish Culture Accomplishments during the Last Year

The following program accomplishments were included in the U.S. Fish & Wildlife Service - Fisheries Information System Accomplishment Module for Fiscal Year 2006:

Rear and release native spring Chinook salmon to support mitigation and tribal treaty obligations

The *importance* to the Resource:
Rear and release of fish into the Little White Salmon River to mitigate for fisheries and habitat lost and to reaffirm tribal Treaty-granted fishing rights in usual and accustomed places.

The *problem*:
Habitat degradation and construction and operation of large hydro system dams on the Columbia River have reduced the survival and production of Pacific salmon returning to areas above Bonneville Dam.

The *objective*:
Produce healthy, high quality smolts for release into the Little White Salmon River, WA that exhibit a high smolt-to-adult survival that allows contribution to various sport, commercial and tribal fisheries.

The *method*:
Collect and spawn an adequate number of adult fish to produce 1,000,000 spring Chinook at the Little White Salmon NFH for release into the Little White Salmon River.

Further description:
A total of 1,016,406 native spring Chinook salmon were reared and released from Little White Salmon National Fish Hatchery with funds provided by the National Marine Fisheries Service under authority of the Mitchell Act (subactivity 1932-0005). While this project helps to maintain a fish population that is incapable of becoming self-sustaining due to habitat loss resulting from flooding, siltation, and fluctuating water levels caused by the Bonneville Pool, it also provides fish to reaffirm tribal treaty granted fishing rights as mandated by the U.S. v Oregon Court agreement. Returning adult fish support a Columbia River sport, commercial and tribal fishery, and a highly successful terminal area tribal gillnet and sport fishery in Drano Lake. This terminal fishery allows harvest of a hatchery stock without impact to ESA-listed and wild fish.

Spring Chinook returning to Little White Salmon NFH
viewed on the hatchery underwater webcam

Description:
The underwater webcam, located downstream of the fish ladder entering Little White Salmon NFH, captures the return of adult Spring Chinook salmon during late spring 2006. A total of 1,463 adult spring Chinook are required to meet the egg needs for all programs for this species at the Little White Salmon/Willard NFH Complex.

Reared and released native fall Chinook salmon to support mitigation and tribal treaty obligations

The *importance* to the Resource:
Rear and release of fish into the Little White Salmon River to mitigate for fisheries and habitat lost and to reaffirm tribal Treaty-granted fishing rights in usual and accustomed places.

The *problem*:
Habitat degradation and construction and operation of large hydro system dams on the Columbia River have reduced the survival and production of Pacific salmon returning to areas above Bonneville Dam. This program also provides mitigation for fish and habitat lost due to the construction and operation of John Day Dam.

The *objective*:
Produce healthy, high quality smolts for release into the Little White Salmon River, WA that exhibit a high smolt-to-adult survival that allows contribution to various sport, commercial and tribal fisheries.

The *method*:
Collect and spawn an adequate number of adult fish to produce 2,000,000 upriver bright fall Chinook at the Little White Salmon NFH for release into the Little White Salmon River.

Further description:
A total of 1.8 million native fall Chinook salmon were reared and released from Little White Salmon National Fish Hatchery with funds provided by the National Marine Fisheries Service under authority of the Mitchell Act (subactivity 1932-0005) and funds for fish food from the Corps of Engineers John Day Mitigation program (subactivity 1932-0017). Additional funds were received to assist with the development of an Upriver Bright fall Chinook Hatchery Genetics Management Plan to help guide this production program. While this project helps to maintain a fish population that is incapable of becoming self-sustaining due to habitat loss resulting from flooding, siltation, and fluctuating water levels caused by the Bonneville Pool, it also provides fish to reaffirm tribal treaty granted fishing rights as mandated by the U.S. v Oregon Court agreement. Returning adult fish support a Columbia River sport, commercial and tribal fishery, and a highly successful terminal area tribal gillnet and sport fishery in Drano Lake. This terminal fishery allows harvest of a hatchery stock without impact to ESA-listed and wild fish.

Hatchery staff with upriver bright fall Chinook at Little White Salmon NFH.

Description:
Willard NFH Manager Dan Magneson and Little White Salmon NFH Maintenance Worker Larry Leighton hold two adult upriver bright fall Chinook during spawning operations.

Rear and release fall Chinook on tribal lands to restore locally adapted stocks

The *importance* to the Resource:
Transfer and release of fish at upriver (Columbia River) acclimation sites assists with mitigation efforts and supports reaffirmation of tribal Treaty-granted fishing rights in usual and accustomed places.

The *problem*:
Construction and operation of John Day Dam on the Columbia River has reduced the survival and production of upriver bright fall Chinook salmon destined to upriver areas.

The *objective*:
Produce healthy, high quality smolts for transfer and release at upriver acclimation sites.

The *method*:
Spawn an adequate number of adult fish to achieve a production goal of 1.7 million pre-smolt upriver bright fall Chinook at the Little White Salmon NFH for transfer and acclimation at sites operated by the Yakama Nation.

Further description:
A total of 1.682 million upriver bright fall Chinook were reared at the Little White Salmon/Willard National Fish Hatchery Complex and transferred by Service personnel to acclimation ponds on the Yakima River, WA. This project is partially funded by the U.S. Army Corps of Engineers (COE) and is a critical component of the Service's obligation under the U.S. v Oregon agreement to assist with the

development of naturally spawning fish stocks on tribal lands in the mid-Columbia River basin. Funding received by the COE is used to provide feed to the tribal fisheries program to assist with the off-site rearing of these fish following transfer and during the acclimation period. Funds (subactivity 1932-0017) are also used to feed an additional 1.7 million upriver bright fall Chinook salmon located at the Priest Rapids Hatchery under co-manager agreement and to meet U.S. vs. Oregon agreement obligations. Returning adult fish are designated for the development of locally adapted, naturally spawning populations within the Yakima River Basin and for tribal harvest.

Distribution Truck on the Road.

Description:
A total of 1.682 million upriver bright fall Chinook presmolts were transported by USFWS - Little White Salmon NFH staff for acclimation and release at the Prosser Tribal Hatchery, WA operated by the Yakama Nation.

Rear and release spring Chinook on tribal lands to restore locally adapted stocks

The *importance* to the Resource:
Transfer and release of fish at upriver (Columbia River)acclimation sites assists with mitigation efforts and supports reaffirmation of tribal
Treaty-granted fishing rights in usual and accustomed places.

The *problem*:
Habitat degradation and construction and operation of large hydro system dams on the Columbia River have reduced the survival and production of spring Chinook salmon returning to the Walla Walla River, Oregon.

The *objective*:
Produce healthy, high quality smolts for transfer and release into the Walla Walla River.

The *method*:
Spawn an adequate number of adult fish to achieve a production goal of 250,000 pre-smolt spring Chinook at the Little White Salmon NFH for transfer and release into the Walla Walla River, OR.

Further description:
A total of 250,004 spring Chinook salmon were reared at the Little White Salmon/Willard National Fish Hatchery Complex and released in the Walla Walla River, WA watershed to support a cooperative restoration effort with the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). This project is funded by the Mitchell Act administered by NOAA-Fisheries (subactivity 1932-0005) and is a cooperative effort between the CTUIR and the Service. This production commitment was transferred to Little White Salmon NFH following the finding of eastern brook trout in Carson NFH raceways. This non-native species entered the Carson NFH water intake and mixed with fish destined for transfer to the Walla Walla River. The presence of bull trout in the Walla Walla River heightened the Service's concern for the potential introduction of a non-native species to this watershed. As a result, Little White Salmon NFH assumed this production responsibility until adequate screening can be installed at Carson NFH to preclude the collection of eastern brook trout. Future returning adult fish will be allowed to spawn naturally to continue development of locally adapted, self sustaining and naturally spawning populations.

Transferring spring Chinook to raceways

Description:
Fishery Biologist Mary Stad assists with the release of spring Chinook into the Little White Salmon NFH upper raceways.

Rear and release spring Chinook on tribal lands to support a cooperative restoration effort

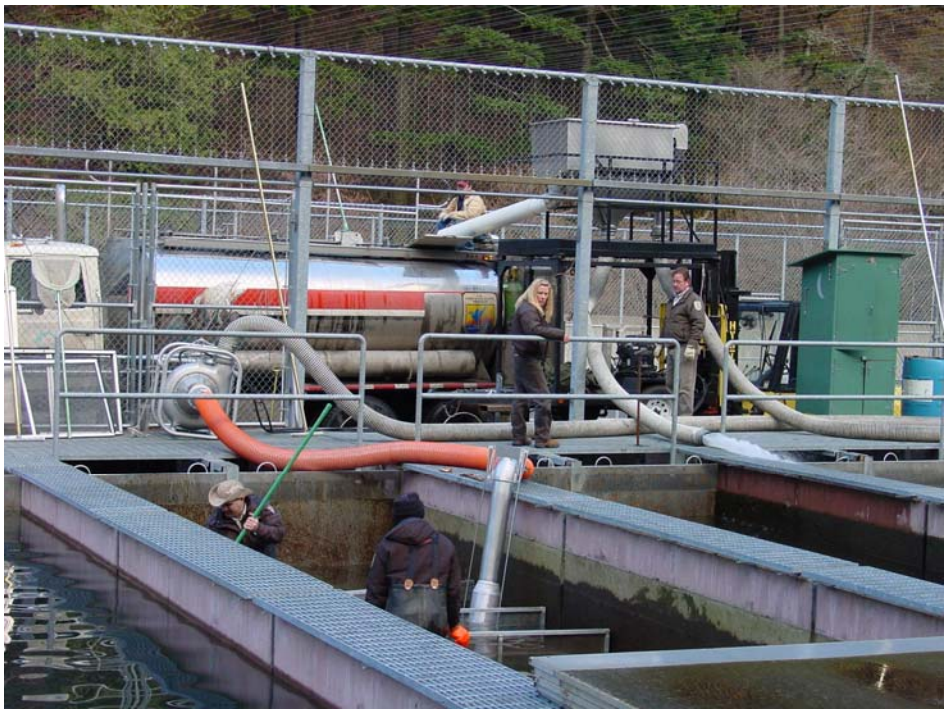
The *importance* to the Resource:
Transfer and release of fish at upriver (Columbia River) acclimation sites assists with mitigation efforts and supports reaffirmation of tribal Treaty-granted fishing rights in usual and accustomed places.

The *problem*:
Habitat degradation and construction and operation of large hydro system dams on the Columbia River have reduced the survival and production of spring Chinook salmon returning to the Umatilla River, Oregon.

The *objective*:
Produce healthy, high quality smolts for transfer and release at acclimation sites located on the Umatilla River.

The *method*:
Receive eyed eggs, taken from a locally adapted stock of fish returning to the Umatilla River, to produce 210,000 spring Chinook at the Little White Salmon NFH for transfer and acclimation at sites operated by the Confederated Tribes of the Umatilla Indian Reservation.

Further description:
A total of 218,764 spring Chinook salmon, derived from a native, locally adapted stock returning to and spawned on the Umatilla River, OR, were reared at the Little White Salmon/Willard National Fish Hatchery Complex and transferred to acclimation ponds operated by the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). This project is funded by the Bonneville Power Administration (subactivity 1937-1045 and 1101) and is a cooperative effort between the CTUIR, the Oregon Department of Fish and Wildlife (ODFW), and the Service. The ODFW is responsible for the monitoring and evaluation program necessary to determine the success of this restoration effort. Fish returning to the Umatilla River are collected at Three mile Dam. A small percentage of fish are collected and spawned. The remaining fish are then trucked and released upstream and allowed to spawn naturally to continue development of locally adapted, self sustaining and naturally spawning populations.



Little White Salmon NFH staff loading fish for distribution to the Umatilla River, OR.

Description:
Little White Salmon NFH staff loaded 218, 764 spring Chinook presmolts using a hydraulically operated fish pump onto trucks operated by the Oregon Department of Fish & Wildlife. These fish were released into acclimation ponds operated by the Confederated Tribes of the Umatilla Indian Reservation. Upon release, these fish will eventually return as adult fish to assist with the Umatilla River restoration effort.

Rear Endangered White River spring Chinook to promote ESA recovery

The *importance* to the Resource:
Without hatchery intervention to hold and spawn captive broodstock and to rear progeny for transfer back to the White River, this population would become extinct.

The *problem*:
The White River spring Chinook spawning aggregation is severely depressed and persistently experiences escapement levels below critical population thresholds. The White River spawning aggregation is within the Upper Columbia River Spring-run Chinook Salmon ESU which is listed as Endangered (FR Vol. 64, No. 56, March 24, 1999).

The *objective*:
Prevent the extinction of, conserve, and ultimately recover the naturally spawning White River spring Chinook spawning aggregation. This recovery program has been incorporated into the mitigation responsibilities of Public Utility District No. 2 of Grant County through their Biological Opinion (dated May 3, 2004).

The *method*:
The White River captive broodstock are currently held at AquaSeed, Inc., a private fish hatchery. Production goals identified in the Grant County PUD Biological Opinion exceed available rearing space

at AquaSeed. Little White Salmon NFH currently has adequate space to assume responsibility for rearing progeny to assist with recovery efforts.

Further description:
Participation in the White River spring Chinook rearing program using facilities at the Little White Salmon/Willard NFH Complex was initiated with the transfer of 54,000 brood year 2005 fish and gametes from the 2006 captive brood year spawned at AquaSeed, Inc. This recovery program is identified as a mitigation requirement of the Grant County PUD in the Priest Rapids Biological Opinion and Priest Rapids Salmon and Steelhead Settlement Agreement. Production is coordinated with the multi-partner Priest Rapids Coordinating Committee - Hatchery Subcommittee and with the Public Utility District No. 2 of Grant County. The production program at Little White Salmon NFH adheres to the rearing density and fish health guidelines specified in the September 2005 White River Hatchery and Genetics Management Plan. All costs associated with this program will be recovered from Grant County PUD.

Marking (body tagging) endangered White River spring Chinook at Little White Salmon NFH.

Description:
Endangered White River spring Chinook reared at Little White Salmon NFH received a body tag prior to transfer, acclimation, and release into the Wenatchee River Basin. Use of the body tag, as opposed to a coded wire tag inserted in the snout of the fish, will allow future detection of these fish at Tumwater Dam, allowing biologists to distinguish this ESA-listed stock from other fish returning to the Wenatchee River Basin.

Transferring endangered White River spring Chinook from AquaSeed, Inc.

Description:
Rearing of endangered White River spring Chinook began at Little White Salmon NFH following the transfer of fish from the private hatchery AquaSeed, Inc. This facility holds and spawns the White River captive broodstock. Juvenile fish were netted from circular tanks at AquaSeed and loaded onto the Little White Salmon NFH distribution truck during May 2006 for transfer and further rearing at the Little White Salmon facility.

Rear and mark native Coho salmon to support tribal restoration efforts

The *importance* to the Resource:
Transfer and release of fish at Wenatchee River Basin acclimation sites assists with tribal restoration efforts and supports reaffirmation of tribal Treaty-granted fishing rights in usual and accustomed places.

The *problem*:
Habitat degradation and construction and operation of large hydro system dams on the Columbia River have resulted in the extirpation of Coho salmon returning to the Wenatchee River Basin, WA.

The *objective*:
Produce healthy, high quality smolts for transfer and release at acclimation sites located within the Wenatchee River Basin to assist with tribal restoration and reintroduction efforts.

The *method*:
Receive eyed eggs, taken from a locally adapted stock of Coho returning to the Wenatchee River, to produce 650,000 Coho at Willard NFH for transfer and acclimation at sites identified by the Yakama Indian Nation.

Further description:
A total of 590,000 Coho salmon, derived from a native, locally adapted stock returning to and spawned on the Wenatchee River, WA, were reared at the Little White Salmon/Willard National Fish Hatchery

Complex and transferred to the Wenatchee River watershed for release by biologists from the Yakama Indian Nation. Through a MOU, 60% of this project is supported by the Yakama Nation using Bonneville Power Administration funds (subactivity 1937-1060 and 1937-1102) and the remaining 40% is provided by NOAA-Fisheries Mitchell Act funding (subactivity 1932-0005). This is a cooperative effort by the U.S. Fish & Wildlife Service and the Yakama Indian Nation to assist with the reintroduction of Coho salmon and development of locally adapted, naturally spawning populations of fish in the Wenatchee River watershed.

Enumerating Coho salmon eggs by weight.

Description:
Willard NFH Fish Culturist Bryan Charlton weighs eyed Coho eggs received from adult fish collected and spawned on the Wenatchee River.

Loading Coho salmon onto a distribution truck.

Description:
Willard NFH staff use a hydraulic fish pump to load Coho salmon smolts onto a distribution truck for transport to acclimation sites located on the Wenatchee River.

Loading eyed Coho eggs into incubator trays.

Description:
Willard NFH manager Dan Magneson loads eyed Coho eggs received from adult fish collected and spawned on the Wenatchee River into incubator trays.

Rear and release spring Chinook on Tribal lands to restore locally adapted stocks

The *importance* to the Resource:
Transfer and release of fish at upriver (Columbia River) acclimation sites assists with mitigation efforts and supports reaffirmation of tribal Treaty-granted fishing rights in usual and accustomed places.

The *problem*:
Habitat degradation and construction and operation of large hydro system dams on the Columbia River have reduced the survival and production of spring Chinook salmon returning to the Walla Walla River, Oregon.

The *objective*:
Produce healthy, high quality smolts for transfer and release into the Walla Walla River.

The *method*:
Receive an adequate number of eggs from Little White Salmon NFH for rearing at Willard NFH to achieve a production goal of 250,000 pre-smolt spring Chinook for transfer and release into the Walla

Walla River, OR

Further description:
A total of 250,000 spring Chinook salmon are being reared at Willard NFH for future release in the Walla Walla River, WA watershed to support a cooperative restoration effort with the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). This project is funded by the Mitchell Act administered by NOAA-Fisheries (subactivity 1932-0005) and is a cooperative effort between the CTUIR and the Service. This production commitment was transferred initially to Little White Salmon NFH, and most recently to Willard NFH following the finding of eastern brook trout in Carson NFH raceways. This non-native species entered the Carson NFH water intake and mixed with fish destined for transfer to the Walla Walla River. The presence of bull trout in the Walla Walla River heightened the Service's concern for the potential introduction of a non-native species to this watershed. As a result, the Little White Salmon/Willard NFH Complex assumed this production responsibility until adequate screening can be installed at Carson NFH to preclude the collection of eastern brook trout. Future returning adult fish will be allowed to spawn naturally to continue development of locally adapted, self sustaining and naturally spawning populations.

Spring Chinook salmon smolts as viewed from the Little White Salmon NFH webcam.

Description:
During the winter months when few adult fish enter the Little White Salmon River, the underwater webcam is moved to hatchery raceways so that web-viewing fans can watch hatchery operations from inside a hatchery raceway. In this photo the webcam views spring Chinook at the Little White Salmon/Willard NFH Complex destined for future transfer and release into the Walla Walla River.

Rear spring Chinook for future transfer to Leavenworth National Fish Hatchery

The *importance* to the Resource:
To assure adequate numbers of adult spring Chinook return to Leavenworth NFH in the future and to provide future harvest opportunities for the Yakama Nation.

The *problem*:
Major intake and pipeline construction temporarily restricted the amount of rearing space available at

Leavenworth NFH.

The *objective*:
To maintain Leavenworth NFH smolt releases at U.S. v Oregon-identified levels.

The *method*:
Temporarily use available rearing space at Willard NFH to rear 250,000 Leavenworth spring Chinook full-term for transfer and release back to Leavenworth NFH.

Further description:
This project involved the transfer of 250,000 Leavenworth stock juvenile spring Chinook to Willard National Fish Hatchery to accomplish the full-term rearing of these fish to the yearling smolt stage. Major intake and pipeline construction work reduced the amount of rearing space at Leavenworth NFH. While pre-smolt releases into Icicle Creek were considered to circumvent the lack of available rearing space during construction, the Yakama Nation requested the full-term rearing of these fish at an off-site facility for eventual transfer back to Leavenworth NFH and subsequent release into Icicle Creek. Leavenworth juvenile spring Chinook were received at Willard NFH during March 2005, received an adipose fin clip and coded wire tag during June 2005, and were transferred back to Leavenworth NFH during late fall 2005. This is a cooperative effort by the U.S. Fish & Wildlife Service and the Yakama Indian Nation to ultimately assure future broodstock collection and a continued tribal fishery on Icicle Creek. Funding is provided by the Bureau of Reclamation through Leavenworth NFH (subactivity 1932-01BR).

Willard NFH staff crowd spring Chinook for loading onto a distribution truck.

Description:
Willard NFH manager Dan Magneson and fish culturist Pat Cushman crowd spring Chinook for loading and transfer to Leavenworth NFH. The hydraulically operated pump safely moves fish from hatchery raceways into a distribution tank.

Rear and release spring Chinook on Tribal lands to support a cooperative restoration effort

The *importance* to the Resource:
Transfer and release of fish at upriver (Columbia River) acclimation sites assists with mitigation efforts

and supports reaffirmation of tribal Treaty-granted fishing rights in usual and accustomed places.

The *problem*:
Habitat degradation and construction and operation of large hydro system dams on the Columbia River have reduced the survival and production of spring Chinook salmon returning to the Umatilla River, Oregon.

The *objective*:
Produce healthy, high quality smolts for transfer and release at acclimation sites located on the Umatilla River.

The *method*:
Receive eyed eggs, taken from a locally adapted stock of fish returning to the Umatilla River, to produce 210,000 spring Chinook at the Little White Salmon NFH for transfer and acclimation at sites operated by the Confederated Tribes of the Umatilla Indian Reservation.

Further description:
A total of 220,000 spring Chinook salmon, derived from a native, locally adapted stock returning to and spawned on the Umatilla River, OR, are currently being reared at Willard National Fish Hatchery for future transfer to acclimation ponds operated by the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). This project is funded by the Bonneville Power Administration (subactivity 19371045 and 1101) and is a cooperative effort between the CTUIR, the Oregon Department of Fish and Wildlife (ODFW), and the Service. The ODFW is responsible for the monitoring and evaluation program necessary to determine the success of this restoration effort. Fish returning to the Umatilla River are collected at Three mile Dam. A small percentage of fish are collected and spawned. The remaining fish are then trucked and released upstream and allowed to spawn naturally to continue development of locally adapted, self sustaining and naturally spawning populations.

Transferring juvenile spring Chinook from Little White Salmon NFH for rearing at Willard NFH.

Description:
After hatching and initial rearing of eggs/fry received from adult fish spawned on the Umatilla River, OR, Little White Salmon NFH staff net, weigh, and load fish into a distribution tank for transfer and final rearing at Willard NFH.

Hatchery Operations – Using Good Science to Raise Fish

The fiscal year began with the first fall tribal gillnet fishery in Drano Lake targeting the harvest of fish destined to Little White Salmon NFH. Similar to the annual spring tribal fishery in Drano Lake, the Service has encouraged the Yakama Nation to hold these lottery gillnet fisheries to help reduce the number of fish that are excess to hatchery escapement goals. In addition, terminal area fisheries similar to the Drano Lake tribal fishery emphasize the harvest of hatchery fish while avoiding the potential impacts on wild and ESA-listed stocks that occurs in mainstem Columbia River mixed stock fisheries. The Yakama Nation lottery fishery occurs one day per week (Tuesday night thru Wednesday noon) coincident with a one day sport fishing closure. A total of 20 randomly drawn tribal fishermen are limited to 150-feet of gillnet during each fishing period.

Following are the results for the fall 2005 Drano Lake tribal gillnet fishery:

	Chinook			Steelhead			Coho
Fishing Dates	Adults	Jacks	Total	Hatchery	Wild	Total	Total
10/04/2005	1,626	0	1,626	91	0	91	51
10/11/2005	1,286	0	1,286	34	23	57	130
10/18/2005	974	0	974	45	31	76	243
10/25/2005 (cancelled)	0	0	0	0	0	0	0
Total	**3,886**	**0**	**3,886**	**170**	**54**	**224**	**424**

The Drano Lake tribal gillnet fishery is the result of a consistently strong return of hatchery upriver bright fall Chinook to the Little White Salmon NFH. For the last several years hatchery staff returned excess fish to the river and closed the hatchery ladder once the adult fall Chinook escapement goal was met. Marking and radio telemetry data recorded for fish either returned to the river alive and unspawned or left in the river due to closure of the hatchery ladder showed that these fish tended to stray into other Columbia River Gorge tributaries. Of specific concern were Little White Salmon NFH stay upriver bright fall Chinook recovered in the Big White Salmon River due to potential interactions with naturally spawning ESA-listed tule fall Chinook. As a result, the hatchery now operates the ladder full-time following the third week of October to assure maximum adult collection and to prevent any harmful impact on ESA-listed fish.

Similar to last year all 2.0 million upriver bright fall Chinook designated for release into the Little White Salmon River were mass marked with an adipose fin clip. Similar to the mass marking of spring Chinook, mass marking with an adipose fin clip allows the harvest of returning hatchery fish in a mixed stock fishery composed of both hatchery and wild-origin fish. Unfortunately this complicates the identification of fish possessing a coded wire tag which will result in the electronic scanning of all fish returning to the hatchery to allow retrieval of coded wire tag information. Similar to what had occurred in the past with Coho salmon, all fall Chinook designated for an upper Columbia River release (e.g. Yakima River at Prosser) to support tribal programs did not receive a mass mark.

Similar to the fall fishery, the spring 2006 Drano Lake tribal gillnet fishery focused harvest effort in a terminal area consisting of a returning hatchery stock of spring Chinook salmon. As has occurred during

the last 6 years, an expanded tribal gillnet fishery occurred on Drano Lake one day per week to help reduce the number of fish in excess of hatchery escapement goals.

The following summarizes the spring Chinook tribal gillnet fishery in Drano Lake during 2006:

	Spring Chinook		
Fishing Dates	Adults	Jacks	Total
05/03/2006	51	0	51
05/09/2006	643	0	643
05/16/2006	745	0	745
05/23/2006	902	0	902
05/30/2006	594	0	594
06/07/2006	787	0	787
06/14/2006	347	0	347
Total	**4,069**	**0**	**4,069**

In addition, WDFW biologist estimated that 1,787 adult spring Chinook and 8 jacks were caught in the Drano Lake spring sport fishery that included 4,519 angler trips during March 15 – June 30, 2006.

The following table summarizes the Fiscal Year 2006 spawning season at the Complex:

Species	No. Adult Fish Needed[1] (Escapement Goal)		No. Adult Fish Spawned		Eggs Collected	% Eye-Up
	Male	Female	Male	Female		
Fall Chinook	913	849	864[2]	870	3,948,167	89.3
Coho[3]	0	0	0	0	0	0
Spring Chinook	610	1,133[4]	481[5]	480	1,809,722	96.1

[1] Due to varying sex ratios, adult escapement needs are calculated to assure a 1:1 paired mating scheme.
[2] Includes 6 jacks spawned.
[3] The Complex Coho program has been terminated due to Mitchell Act funding shortfalls. A total of 2,287 Coho returned during Fiscal Year 2006 that included 9 mortalities and 2,278 killed as excess fish.
[4] Extra adult fish are spawned to allow culling of eggs with a high incidence of BKD. This escapement goal assumes a worse-case scenario (or a high incidence of BKD). In addition, the historic return of 65% females to 35% males requires the collection of additional female fish to assure a 1:1 spawning ratio.
[5] Includes 3 jacks spawned.

Program changes occurred again during the last year at Willard NFH. Staff completed the temporary rearing of Leavenworth NFH spring Chinook. Fish were transferred to Willard NFH for temporary rearing due to a potential pipeline and intake reconstruction project at Leavenworth NFH. Construction did not occur and the fish were transferred back to Leavenworth NFH during November 2005. Two additional programs were shifted from Little White Salmon NFH during the year due to available rearing space at Willard NFH. The Umatilla River and South Fork Walla Walla River spring Chinook programs that support CTUIR efforts were initiated at Willard NFH. Both groups are scheduled for transfer during the spring 2007.

Fish & Egg Distribution at the Little White Salmon/Willard National Fish Hatchery Complex – Fiscal Year 2006

	Species	Number	Weight	Release Site or Receiving Facility	Agency	State	Program Goal
Little White Salmon – Fish Distribution	Spring Chinook	218,764	12,089	Umatilla River, Imeques Pond	CTUIR	OR	Restoration
	Spring Chinook	1,013,656	67,066	Little White Salmon River	USFWS	WA	Mitigation
	Spring Chinook	250,004	15,195	S.F. Walla Walla River	CTUIR	OR	Restoration
	Spring Chinook	4,354	174	The Dalles Dam	COE	OR	Research
	Fall Chinook	1,682,164	3,318	Yakima River, Prosser Ponds	YN	WA	Mitigation
	Fall Chinook	1,802,174	21,951	Little White Salmon River	USFWS	WA	Mitigation
	Fall Chinook	7,962	185	Columbia River Research Lab	USGS	WA	Research
Little White Salmon Total		**4,979,078**	**119,978**				
Willard – Fish Distribution	Coho	590,307	25,338	Wenatchee River Basin	YN	WA	Restoration
	Spring Chinnook	204,505	7,511	Leavenworth NFH	USFWS	WA	Mitigation
Willard Total		**794,812**	**32,849**				
Complex Total – Fish		**5,773,890**	**152,827**				
Little White Salmon – Egg Distribution	Fall Chinook	700		Various Elementary Schools		WA	Outreach
Complex Total – Eggs		**700**					

Agency Codes
CTUIR – Confederated Tribes of the Umatilla Indian Reservation
YN – Yakama Nation
USFWS – U.S. Fish & Wildlife Service
USGS – U.S. Geological Survey
COE – U.S. Army Corps of Engineers

Administration: The Business Side of Rearing Fish

The Complex had 11 full-time employees at the end of the fiscal year. The following table summarizes Complex staffing during the last year:

Name of Employee	Functional Title	Grade	Period Worked
Speros Doulos	Complex Manager	GS-482-13	10/01/05 - 09/30/06
James Rockowski	Deputy Complex Mgr.	GS-482-12	10/01/05 - 09/30/06
Dan Magneson	Hatchery Mgr. - Willard	GS-482-11	10/01/05 - 09/30/06
Lori Orr	Administrative Officer	GS-341-09	10/01/05 – 09/30/06
Peter Long	Fish Biologist	GS-482-09	10/01/05 - 09/30/06
Mary Stad	Fish Biologist	GS-482-09	10/01/05 - 09/30/06
Bryan Charlton	Fish Culturist - Willard	WG-5048-05	10/01/05 - 09/30/06
Patrick Cushman	Fish Culturist - Willard	WG-5048-05	10/01/05 - 09/30/06
David Frost	Fish Culturist	WG-5048-05	10/01/05 - 09/30/06
John C. Sweeney	Fish Culturist	WG-5048-05	10/01/05 - 09/30/06
Larry Leighton	Maintenance Worker	WG-4749-08	10/01/05 - 09/30/06
Vacant	Fish Culturist	WG-5048-05	
Vacant	Fish Biologist - Willard	GS-482-05/09	

Personnel actions during the year included the promotion of Lori Orr, Administrative Officer, from GS-341-07 to GS-341-09, a much deserved promotion considering the workload required to fulfill the administrative duties for a two-hatchery Complex. Two positions remained vacant during the year due to shortfalls in Mitchell Act funding.

The Fiscal Year 2006 budget for the Complex totaled $1,211,424 from all fund sources. Reimbursable funds from other agencies accounted for 100% of the operational budget with a majority of funds (63.9%) coming from the NOAA - Fisheries Mitchell Act appropriation. These funds reimburse the operating agencies (in this case the U.S. Fish & Wildlife Service) for fish production to mitigate for fish losses associated with the operation of hydroelectric dams on the Columbia River. Remaining reimbursable funds are for fish reared for specific programs such as the Bonneville Power Administration (BPA) reimbursed Umatilla River and Mid-Columbia Coho reintroduction (Wenatchee Basin) programs and U.S. Army Corps of Engineers John Day mitigation effort. The Complex received no operational funds from the U.S. Fish & Wildlife Service during Fiscal Year 2006 although funds were received from the Service's flexible maintenance management system account to help correct maintenance deficiencies.

In addition to a complicated hatchery production program, administration of the Complex also includes the management of 14 government residences, the largest government housing program in the National Fish Hatchery System. Rent paid for occupying a government residence is deposited into a dedicated account (subactivity 8610) for use in maintaining residential facilities. Although these funds are shown as a Complex fund source, monies generated from rental receipts are not used to support fish production

efforts. A total of $90,213 was spent operating and maintaining government quarters at the Complex during Fiscal Year 2006.

The following table summarizes Complex funding during Fiscal Year 2006:

Fund Source	Amount	Percent of Total Budget
NOAA-Fisheries (Mitchell Act)	$774,376	63.9
Bonneville Power Administration	207,389	17.1
Corps of Engineers	63,699	5.3
FWS Quarters	90,213	7.4
FWS Flexible Maintenance	75,747	6.3
Total	**$1,211,424**	**100.0**

Fish hatchery expenditures focus on three critical areas and include staff salaries, fish food, and maintenance of facilities required to maintain an adequate and healthy rearing environment. Salaries and fish food alone comprised 77.1% of the Complex budget during Fiscal Year 2006. Unlike many hatcheries that require the use of pumps to provide rearing water, the gravity-fed water supply from the Little White Salmon River and nearby springs cost virtually nothing to maintain resulting in relatively low utility bills at both the Little White Salmon and Willard facilities. In addition, fish production operational costs for Willard NFH during Fiscal Year 2006 totaled $276,924. Willard NFH funding included a combination of Mitchell Act funds (35%) and BPA funding for the CTUIR Umatilla River program and Yakama Nation Mid-Columbia Coho reintroduction program.

Construction and Maintenance: Providing a First Class Environment for Fish

Pouring concrete for the east acclimation pond wall on April 29, 2006.

The year was highlighted by a major project to construct a new acclimation pond at Little White Salmon NFH in support of proposed production changes associated with Spring Creek NFH reprogramming. Designed by the engineering firm Montgomery, Watson, Harza, construction work was award to Singleton Enterprises, Luthersville, GA. The local company Bryan Concrete & Excavation, White Salmon, WA completed a majority of the work on this project as the principal subcontractor including construction of a new 41-foot X 150-foot concrete pond and associated piping. The project was completed during August 2006 at a total cost of $752,465.

Five Rivers Construction, Longview, WA completed two other significant maintenance projects during the year. The Little White Salmon NFH hatchery building heating and electrical renovation project

included work to replace the old oil burning furnace and correct numerous electrical safety deficiencies. Electric radiant heaters with a propane back-up heating system replaced to old inefficient oil furnace. Numerous electrical deficiencies were corrected including hardwiring to replace extension cords, installation of all fish feeder and egg picker electrical outlets with GFCI-protected outlets, disconnection of old electric panel circuits, and replacement of the second floor light fixtures. Total cost of the project was $84,899. In addition, the Willard NFH main 12-inch steel nursery area pipeline located in the floor trench that spans the entire length of the building was replaced. All existing nursery tank risers, piping, fish feeder electric outlets, and egg incubator water supply piping were demolished and replaced with PVC pipe. Total cost of this project was $85,591.

A major government quarters renovation project at both Little White Salmon and Willard NFH was awarded to Kola, Inc., Portland, OR. Work included the demolition (basement bathroom) and restoration of the basement in Little White Salmon Quarters #5A, bathroom remodel of the upstairs bathroom in Quarters #5A, repoint brick chimneys and sills in all 14 residences at Little White Salmon and Willard NFH, and add attic insulation in the residences of required occupants of government housing (Little White Salmon #6A and 7A, Willard #1 and 11) at a cost of $62,460.

Other major maintenance projects and equipment purchases made during the year with Service flexible maintenance funding include:

Facility	Project/Equipment Purchase	Cost
Little White Salmon NFH	Fish stunner (euthanize adult fish)	10,890
	Air compressor for stunner operation	280
	Brailer (remove excess adult fish from holding pond)	947
	Acclimation pond floating walkway	20,844
	Acclimation pond PUD electric service (transformers)	4,630
	Acclimation pond pipe modification	2,107
	Electric repair of ladder gate control box	395
	Oxygen meter/digital meter	606
	Standby generator maintenance	4,763
	Fire extinguisher maintenance	478
	Furnace/heat pump maintenance	78
	Pump septic tank	158
	Environmental audit corrections	350
	Maintenance worker salary	9,985
Willard NFH	2nd bank raceway pipeline repair	13,707
	Standby generator maintenance	2,382
	Fish pump pipe	352
	Electric fence (raceway predator exclusion)	689
	Sump pump	143
	Case tractor repair	748
	Environmental audit corrections	490
Carson Depot Springs	Piping	128
	Wire water and security alarm to radio base station	480
	Security alarm door contacts	118
	Total	**75,748**

Habitat Accomplishments: Partnerships to Benefit Fish & Wildlife

Hatchery staff emphasis on improving habitat demonstrates that hatcheries can have a greater role in fish and wildlife preservation beyond the more traditional role of producing fish. This is especially true in the Little White Salmon River watershed where hatchery staff have worked with local partners to improve habitat conditions for the benefit of fish and wildlife. Examples of habitat related work in the last year nclude:

Using the web-based Forest Practices Application Review System (FPARS), hatchery staff review all proposed forest practices activities within the Little White Salmon River watershed, providing comments to Washington Department of Natural Resources staff during project reviews. A majority of the Little White Salmon River riparian area is owned by Broughton Lumber Company (BLC). BLC has applied for numerous forest practices applications in the watershed that supplies water to both Little White Salmon and Willard NFH. Staff review of the FPARS assures that adequate riparian area/harvest area buffers are maintained to assure optimal water quality.

Log rafts filled Drano Lake during the 1960's, the result of intense harvest of local forests.

Past sediment loads in the Little White Salmon River were the result of large scale logging, road building, and a lack of culvert maintenance on U.S. Forest Service lands upstream of Little White Salmon and Willard NFH. While logging on national forest land has virtually ceased, increased clear cut logging is now evident on lands owned by Broughton Lumber Company. The Eastside Forest Practices Act is less restrictive when reviewing logging requirements near riparian areas. In addition, Broughton Lumber Company stockholders prefer clear cut logging when compared to other methods of forest harvest. Broughton currently has an excess of spotted owl habitat. As a result, numerous clear cuts are in progress within the watershed. Hatchery staff continue to monitor this activity using the Forest Practices Application Review System.

Hatchery staff continue to work toward development of a complementary forest management plan as a partnership with the Columbia Land Trust, Chenowith Farm and Forest Conservancy, and World Steward. These organizations manage approximately 200 acres of land along the eastern border of Little White Salmon NFH property. Purchased with funding from the Paul Allen Forest Protection Foundation, this property is administered by the Columbia Land Trust. The area is referred to as the Little White Salmon Biodiversity Reserve and the Conservancy plans to restore native oak habitat on a portion of the property. The Columbia Land Trust and the hatchery have discussed a partnership and more regional

approach to oak forest management given the presence of such habitat on both Conservancy and hatchery land. Notable progress was made this year when the Complex entered into a services contract with Chris Rombough, Rombough Herpetological, to complete a thorough amphibian and reptile survey of hatchery lands to begin the forest management planning process on Service-owned lands. Chris completed his report, "The Amphibians and Reptiles of the Little White Salmon National Fish Hatchery: A Report to the United States Fish and Wildlife Service". He did an outstanding job and this report now serves as an example of a good-faith effort by hatchery staff to move the forest management partnership forward. Hopefully future regional habitat funding will be made available to use the services of a forest management consultant with a strong background in forest ecology to assess current habitat conditions and species' presence to lead to development of a comprehensive habitat management plan allowing management of Service-owned and adjacent lands at an ecosystem level.

Herpetologist Chris Rombough with a western terrestrial garter snake he retrieved from Drano Lake (note the water line on Chris's shirt near his neck).

Complex staff entered into a partnership with the Skamania County Weed Board and Planning Department to control Eurasian milfoil in Drano Lake. This aquatic noxious weed species is beginning to choke off shallow water areas within the lake, making boating and bank angler opportunities difficult. The County received a grant from the Washington Department of Ecology along with a recommendation for use of specific herbicides to control this aquatic weed species. To assist with a monitoring and evaluation effort, funding was provided from the Complex budget to staff of the Columbia River Fisheries Program Office for the collection of pre- and post-treatment data to help evaluate the success of treatment. This included water quality sampling and the use of bioassays to measure the potential for herbicide uptake by fish. Hatchery spring Chinook were suspended in the treatment areas, monitored, then sent to chemical laboratory at Mississippi State University to determine fish flesh herbicide levels. Although chemical analyses are not complete, data will be provided to staff of Skamania County and the Washington Department of Ecology to help guide future Eurasian milfoil control efforts within the Columbia River Basin.

Outreach: Keeping the Public Informed

Public Outreach and Environmental Education at the Little White Salmon/Willard NFH Complex

The *importance* to the Resource:
An informed public will support U.S. Fish & Wildlife Service programs that are responsible for the conservation of Pacific Northwest fish and wildlife resources.

The *problem*:
The public is easily confused by the multi-agency effort to conserve fisheries of the Pacific Northwest. This often results in mistaken identity of the principal conservation agency. There has been a reduction in support of traditional fishery mitigation programs and an unrecognized role the Service has in hatchery reform/recovery efforts.

The *objective*:
Inform the public, elected officials, and partners of the benefits of Service operated hatcheries and their programs that ultimately lead to the conservation of fish and wildlife resources for the benefit of everyone.

The *method*:
Encourage public visitation at the Little White Salmon/Willard NFH Complex for education and to disseminate information regarding the role of the Service in fish and wildlife conservation. Use hatchery staff at off-site venues to address public, educational, and leadership organizations and inform them of the Service mission and hatchery program.

Further description:
The hatchery Complex continues to be the destination for a number or educational and leadership organization tours including nine school groups, two educational job shadows, and an off-site presentation to the Washington Agriculture and Forestry Leadership program including instruction of "Fish 101" on Columbia River issues at the groups Columbia River Seminar. Numerous partner meetings were held to help build support between the hatchery and NOAA-Fisheries, Grant Co. PUD, Chenowith Forest & Farm Conservancy, Columbia Land Trust, WDFW Habitat and Enforcement divisions, and with representatives of the Yakama Nation. In addition, City Scene TV spent a day at the hatchery filming a segment for "Northwest Style" emphasizing the hatchery "who we are and what we do" and how staff work contributes to a quality lifestyle in the Pacific Northwest. The hatchery underwater webcam is extremely popular with the web-browsing public. Staff continue to demonstrate that hatcheries can conserve habitat too. Work with partners continues toward the development of an upland habitat management plan to complement an existing effort on adjacent, private lands.

Sport fishing below Little White Salmon NFH.

Description:
Returning adult salmon to Little White Salmon NFH provide a popular sport fishery in Drano Lake, an enlarged area near the mouth of the Little White Salmon River. The hatchery public outreach program emphasizes the importance of these mitigation fisheries to the economy of the Pacific Northwest.

Tribal gillnet fishing below Little White Salmon NFH.

Description:
Returning adult salmon to Little White Salmon NFH also provide a terminal area opportunity for tribal gillnet fishing targeting hatchery fish. This type of fishery, solely dependent on hatchery produced fish, allows tribal harvest in an area that does not contain wild or ESA-protected fish. The hatchery public outreach program also emphasizes the importance of Pacific salmon to Native American people.