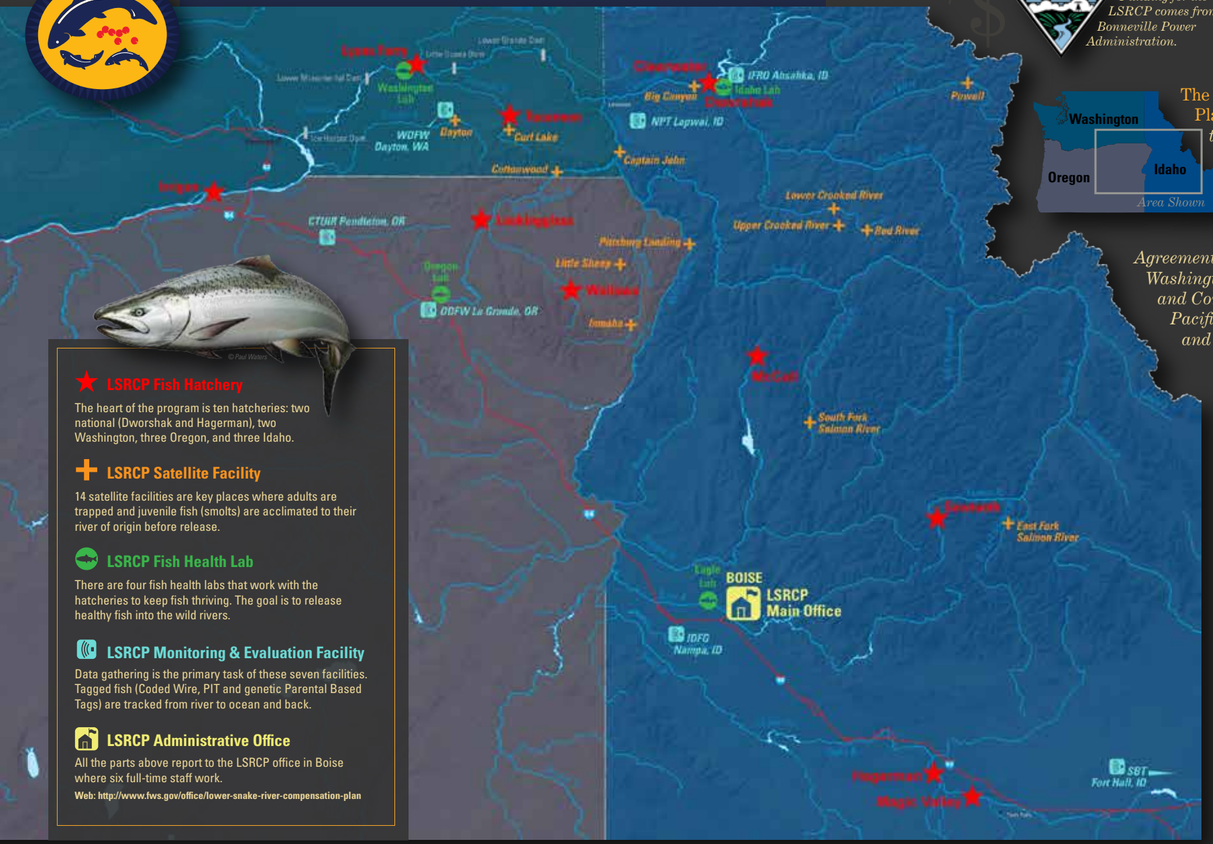
Lower Snake River Compensation Plan or LSRCP



LSRCP Fish Hatchery

The heart of the program is ten hatcheries: two national (Dworshak and Hagerman), two Washington, three Oregon, and three Idaho.

LSRCP Satellite Facility

14 satellite facilities are key places where adults are trapped and juvenile fish (smolts) are acclimated to their river of origin before release.

LSRCP Fish Health Lab

There are four fish health labs that work with the hatcheries to keep fish thriving. The goal is to release healthy fish into the wild rivers.

LSRCP Monitoring & Evaluation Facility

Data gathering is the primary task of these seven facilities. Tagged fish (Coded Wire, PIT and genetic Parental Based Tags) are tracked from river to ocean and back.

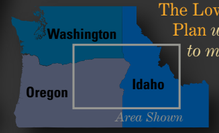
LSRCP Administrative Office

All the parts above report to the LSRCP office in Boise where six full-time staff work.

Web: http://www.fws.gov/office/lower-snake-river-compensation-plan

Funding for the LSRCP comes from the Bonneville Power Administration.

The LSRCP program is administered by the U.S. Fish & Wildlife Service



The Lower Snake River Compensation Plan *was authorized by Congress in 1976 to mitigate for the adverse impact four lower Snake River dams had on commercial, recreational and tribal fisheries. Our hatcheries and evaluation programs are conducted under Cooperative Agreements with the States of Idaho, Oregon and Washington, the Nez Perce, Shoshone-Bannock and Confederated Umatilla Tribes, and the Pacific States Marine Fisheries Commission and Service hatcheries and field stations.*

LSRCP yearly adult PRODUCTION:

91,500	Fall Chinook
293,500	Summer/Spring Chinook
165,300	steelhead…

for harvest in the ocean and Columbia below McNary Dam and to escape Chinook and steelhead adults along the lower Snake River. Subtract return goal (below) for coast wide harvest.

LSRCP yearly adult RETURN GOALS:

18,300	Fall Chinook
58,700	Summer/Spring Chinook
55,100	steelhead…

returning above McNary Dam to the LSRCP project or above.

LSRCP facilities raise 86,000 pounds of rainbow trout for local recreational fishing in Washington and Idaho.

NOAA's National Marine Fisheries lists Snake River Chinook and steelhead as threatened and sockeye as endangered. The LSRCP supports recovery of these endangered stocks through outplanting juvenile and adult fish.

Lookingglass Hatchery yearly LSRCP spring Chinook goals: 1,390,000 smolt released and 9,068 returning adults

1. Lookingglass Hatchery goal is to conserve and restore Grande Ronde River spring Chinook. With respect to the Imnaha River, the goal is centered on harvest, or LSRCP mitigation
2. Trapping of adults occurs at the hatchery's Lookingglass Creek, the Imnaha satellite facility and on Catherine Creek, Upper Grande Ronde (Umatilla Tribe), and Lostine River (Nez Perce).
3. Regardless of trap site, all eggs are brought to Lookingglass for incubation and rearing for 18 months. Smolts are placed back into their "trap-site" streams for acclimation and release.
4. Lookingglass Hatchery fish health is monitored by the Oregon Lab. spring Chinook egg to smolt survival is 85%. Fish health is assessed at each acclimation site prior to release.
5. The closest monitoring and evaluation facility is in La Grande. Knowing where our fish are and when allows us to adapt Lookingglass Hatchery programs to current data trends.
6. Lookingglass Hatchery, the Nez Perce Tribal Fisheries Program, and Confederated Tribe of Umatilla Indian Reservation work toward restoring robust spring Chinook runs.

Cover photo, Derek Neuts, USFWS

U.S. Fish & Wildlife Service

Lookingglass
Fish Hatchery

Lookingglass Hatchery
76657 Lookingglass Road
Elgin, OR 97827
541/437-9723
http://www.dfw.state.or.us

U.S. Fish & Wildlife Service
http://www.fws.gov/office/lower-snake-river-compensation-plan

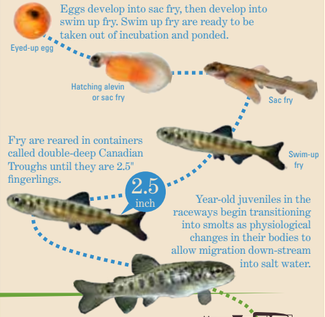
December 21, 2023

Part of the ~
LOWER SNAKE RIVER COMPENSATION PLAN

Welcome to Lookingglass Hatchery

Open daily 7:30 to 4:30.

Winter



Eggs develop into sac fry, then develop into swim up fry. Swim up fry are ready to be taken out of incubation and ponded.

Fry are reared in containers called double-deep Canadian Troughs until they are 2.5" fingerlings.

Year-old juveniles in the raceways begin transitioning into smolts as physiological changes in their bodies to allow migration down-stream into salt water.

Spring

Smolts are pumped onto trucks & transported to acclimation sites to imprint on the water body of their parents' origin. They are 18-months old when released for their downstream migration.. *Lookingglass Creek* stock smolts are direct releases from the hatchery.

The raceways are pressure-washed, repaired as needed and disinfected for the fingerling Chinook salmon.

Fingerlings are moved to raceways where they are reared into juveniles that will be released the following Spring.

Summer

Collection of adults begin for spawning in August, which starts a new brood year and life cycle of the Spring chinook salmon.

Fall

Eggs are 'eyed up' and have tiny visible backbones.

Time to shock, pick, and enumerate these 1,500,000+ eggs.

Spring Chinook

THE HATCHERY GROUNDS

Old Looking Glass is born. 10 to 16 million salmon enter the Columbia each year.

Old Looking Glass is 30. His people save Lewis & Clark from starvation.

Young Looking Glass is born. His father is 37. A Nez Perce delegation goes to St. Louis.

The Nez Perce and many other tribes sign a treaty with the U.S. Fishing rights guaranteed.

The Hume brothers figure out how to can salmon.

1795 — 1805 — 1832 — 1855 — 1863 — 1867

10-16 million fish

Supreme Court upholds treaty of 1855. Tribes allow the states salmon, not the reverse.

First Federal hatchery on the Columbia at Little White Salmon River. It is for egg collection only.

Tesla's design for hydroelectric power generation is realized at Niagara Falls.

Columbia Chinook harvest peaks. By 1891 it is down by half.

Commission on Fish and Fisheries is born. First Chinook salmon hatchery in 1872.

1912 — 1896 — 1888 — 1884 — 1871

Bonneville Dam is built.

Celilo Falls is inundated. A ten thousand year old salmon fishery and market place is lost.

Start of the Lower Snake dams. Ten years of construction for 4 out of 5 proposed dams.

U.S. v Oregon rules in favor ot tribal fishing rights. Fairshare means 50 percent.

Sacramento Chinook fishery crashes.

Endangered Species Act passed.

1938 — 1940 — 1955 — 1965 — 1969 — 1973

3 million fish

NOAA lists Snake River sockeye as endangered. Chinook and steelhead follow.

Lookingglass Hatchery is built along with 10 others for LSRCP.

Salmon Scam imprisons tribal fishermen who are practicing their Washat religion.

LSRCP is approved as part of the Water Resources Development Act.

1991 — 1982 — 1982 — 1976

Peer reviewed study supports using hatchery fish for supplementation.

Record numbers of Chinook return to the Columbia.

Supreme Court upholds the treaty of 1855 yet again.

2004 — 2012 — 2013 — 2018

1 million fish

USFWS embarks on comprehensive hatchery reviews.

Old and Young Looking Glasses

The hatchery is named for Young Looking Glass, a Nez Perce tribal leader.

"Old" Looking Glass was 70 in 1855. Arriving late to the treaty council, he lamented, "My people, what have you done? While I was gone, you have sold my country. I have come home, and there is not left for me a place to pitch my lodge." He felt betrayed by his own son, "Young" Looking Glass, the hatchery namesake, and Chief Joseph, who signed the treaty.

Isaac Stevens, the new Territorial Governor of Washington, represented the United States at this 1855 negotiation. He knew the tribes would not sign any treaty that blocked access to traditional hunting and fishing grounds. Built into the treaty was guaranteed access and use of all traditional lands in perpetuity, even sites within the 45,000 square miles ceded to the U.S.

Echoes of the 1855 Treaties reverberate at Lookingglass Hatchery today. The hatchery supports tribal fisheries. As sovereign entities, the Nez Perce Tribe and Confederated Tribes of Umatilla Indian Reservation partner with the hatchery as co-managers of Grande Ronde and Imnaha River salmon.

First Decades

Julia Pinnix, USFWS

Collecting spring Chinook milt for later mixing with eggs in the nursery.

Lookingglass Hatchery was constructed in 1982 by authority of the Lower Snake River Compensation Plan (LSRCP) to mitigate for fish losses due to four dams. The goal is returning adult spring Chinook to the Grande Ronde and Imnaha Rivers ideally in harvestable numbers as existed prior to the dams.

Sadly, by 1992, Lookingglass Creek's native population of spring Chinook vanished despite good habitat. Stock from the Rapid River in Idaho reestablished the run; however, later guidelines called for use of inbasin stocks. Starting in 1999 the Rapid River fish were removed, and spring Chinook from Catherine Creek, a Grande Ronde stock, were introduced in 2001. Ten years later this re-stocking with inbasin fish proved successful. 2011 saw the spring Chinook tribal and sport fisheries open on Lookingglass Creek.

1,000 Miles Out and In

A barge for juvenile fish.

With 1,700 returning adults, the 2012 run looked much like 1960s pre-dam numbers.

Spring Chinook traverse a wide variety of watery habitats spanning a thousand miles. From deep-ocean to continental shelf to river delta and estuary to main-stem channel to natal stream, all these habitats must function optimally providing what fish need at just the right time in their out- and in-migration.

In todays setting, spring Chinook are assisted in their long journey by being barged a portion of the journey.

Fish for the Future

Dam removal often adds viable salmon habitat.

People have a profound impact on the functionality of salmon habitats. Today it is our collective choice between habitat restoration and further degradation. We can keep pollutants and the excess silt out of home streams. We can replant and protect the streamside forest, trees keep rivers cool in summer. We can continue to reclaim and restore vast swaths of the Columbia Estuary.

Dam removal may not be feasible, but spilling more water over existing dams when juvenile Chinook are passing toward the ocean greatly increases their survival. We all can facilitate their migration by conserving electricity and water.

Can We Stop the Warming?

The future of salmon and so much more is in our hands.

Warm water stresses salmon to a point they succumb to disease and die. The risk of home streams being too warm, or too low is especially high for Northeast Oregon spring Chinook arriving at their natal streams to spawn in the hot months of summer.

Perhaps the biggest test of our collective resolve to save salmon is a warming climate. Ironically, one source of "clean" energy that does not emit green house carbon dioxide, is the electricity generated by dams—the very thing that brought about the *Lower Snake River Compensation Plan* to begin with.