Lower Snake River Compensation Plan or LSRCP

Funding for the LSRCP comes from the Bonneville Power Administration.

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

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

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.

Sawtooth Hatchery yearly LSRCP spring Chinook goal: 2,000,000 smolts released / 19,445 adults returning

1. Sawtooth Hatchery spawns steelhead and incubates eggs to the eyed stage before shipping them to Hagerman and Magic Valley Hatcheries.
2. Spring Chinook are trapped at Sawtooth Weir. When ripe, they are spawned and reared from egg to juvenile on site.
3. Sawtooth works closely with the Eagle Lab to insure that our fish stay healthy. Spring Chinook are especially vulnerable to bacterial kidney disease.
4. Pacific States Marine Fisheries Commission marks juveniles for tracking the 1,900-mile round trip from mountain to ocean.
5. The Shoshone Bannock Tribe operates a weir on the East Fork and transfers the green eggs to Sawtooth.
6. Non-LSRCP: Sawtooth works with Eagle Fish Hatchery on sockeye conservation, and Pahsimeroi Hatchery on Chinook and steelhead programs.

Chinook smolt, Roger Tabor, USFWS

U.S. Fish & Wildlife Service

Sawtooth
Fish Hatchery

Sawtooth Fish Hatchery
10 Fish Hatchery Drive
Stanley, ID 83278

208/774-3684
http://idfg.idaho.gov

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 Sawtooth Fish Hatchery

Open daily 7 to 6.
Visitor Center from 8 to 5 .
Tours are available from Memorial Day to Labor Day at 1:30 pm.

Spring Chinook Hatchery Cycle

Spring

- 5½ inch — Summer Chinook smolts reach 5 1/2" in length at 1.5 years old
- Chinook Smolts are released onsite & transported to the Yankee Fork of the Salmon River for release
- Steelhead broodstock are trapped & spawned

Summer

- Eyed steelhead eggs are transferred to rearing hatcheries
- Chinook fingerlings are adipose clipped & coded wire tagged
- Water temperatures can reach 70° F for Chinook salmon fingerlings
- Feeding fish

Fall

- Chinook broodstock are trapped & spawned
- Chinook eggs are incubated, eyed & placed in rearing incubators on well water
- Fish feeding slows down as water temperatures drop to almost freezing
- PIT tagging of Chinook parr

Winter

- Feeding of Chinook parr is reduced to weekly or as ice-free conditions exist
- Fry inside hatchery building are supplied with well water at 40° F & feed daily
- Icing conditions cause frequent ice jams on intake screens
- Snow is removed & back-up generators serviced to ensure continuous flow of water

Spring Chinook

Weir: We track the number of wild fish passed above the weir.

951 Miles from the ocean

THE HATCHERY GROUNDS

We incubate steelhead eggs to the eyed stage then ship them to Magic Valley and Hagerman hatcheries. A significant number go to the Shoshone-Bannock egg-box program.

Steelhead

We acclimate sockeye smolts and trap returning adults at Sawtooth hatchery.

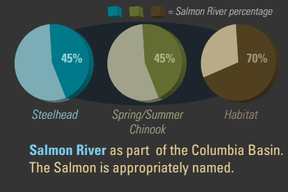
Sockeye

We hold rainbow trout to stock locally for recreational fishing.

Rainbow trout

4 Fish illustrations, © Paul Waters

Integrated Spring Chinook: we raise wild mixed with a dash of hatchery fish, keeping them in separate raceways, for release 14-miles above the weir.



Salmon River as part of the Columbia Basin. The Salmon is appropriately named.

$4.6 billion dollars value of Columbia Basin recreation

$3,392,344 value of Lower Snake Chinook recreational fishery

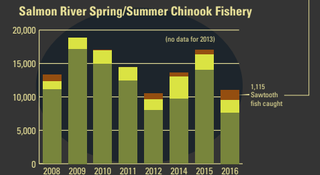
$31,002,134 value of Lower Snake steelhead recreational fishery

All dollar/value data from 2016

$91.28 Chinook* value per angler day

$85.84 steelhead value per angler day

* **$369,000** value of 4,042 angler days in the 2023 season to catch 1,546 spring Chinook salmon, raised here at Sawtooth Fish Hatchery, caught on the Salmon River just below Sawtooth weir/trap



Salmon River Recreational Fishery 2008 was the first year since 1965 Chinook fishing opened just below the hatchery (rust segment). Green is the basin total catch. Yellow represents wild fish caught and then released.

Part of the~ LOWER SNAKE RIVER COMPENSATION PLAN

The Salmon Eaters

Sacagawea was an Agaidika or "Salmon Eater."

August 13, 1805, the *Agaidika*, the "salmon eaters," fed Lewis & Clark and company fish from the Salmon River. To their joy, a long lost *Agaidika* daughter, taken by enemies when only a child, was guiding these Americans. Her name was Sacagawea.

It is fitting that salmon from the future State of Idaho was the "icebreaker" between two great cultures. Fast-forward two centuries. The Shoshone-Bannock Tribe, including *Agaidika* descendants, today catch and eat Salmon River salmon as part of their heritage.

In 2008, Sawtooth Fish Hatchery trucked 1,438 adult spring Chinook downstream to the Yankee Fork. These adult salmon were "outplanted," released directly into the river and allowed to spawn there. This was done in support of the Shoshone-Bannock's goal of one day having 2,000 adult spring Chinook return yearly to the Yankee Fork fishery.

LSRCP meets ESA

Yankee Fork is one of nine genetically significant populations of wild Upper Salmon River spring/summer Chinook needed for species recovery under the Endangered Species Act or ESA. Yankee Fork represents genetic diversity. Supporting this diversity was not necessarily in Sawtooth Hatchery's original marching orders—that of the Lower Snake River Compensation Plan or LSRCP.

The LSRCP was passed in 1976. Sawtooth was built as an LSRCP hatchery in 1985. Its job? To compensate for fish losses due to the four Lower Snake dams. Then from 1991 to 1997, all Lower Snake River salmon and steelhead were listed under the Endangered Species Act or ESA. The ESA listings were a wake up call. Hatchery programs came under intense scientific scrutiny.

Shoshone-Bannock Tribes

A large adult spring Chinook at the Shoshone-Bannock's Yankee Fork weir.

© Eric Barker

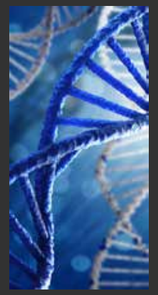
Hatchery eggs in excess of mitigation goals are used to supplement Spring Chinook in Idaho.

After 150 years of Chinook hatcheries, biologists have documented the deleterious effects of domestication in conservation hatcheries.

If we want to restore wild Chinook runs, can Sawtooth hatchery play any part in conservation? For example, can we bring back spring Chinook in Panther Creek, another of the nine ESA major populations but one where the wild run is virtually gone? De we even try?

Supplementation and Integration

Idaho Fish and Game answered, "Yes!" And in 1989, IDFG initiated studies supplementing wild stocks of spring/summer Chinook using hatchery fish. The Salmon River basin is a key "laboratory." Supplementation means putting hatchery juveniles or adults in waters where wild fish are worryingly low in number. This is what was done by the hatchery at Yankee Fork in 2008. Results are mixed, but some runs are bouncing back.



Specific genetic adaptations of salmon include fine tuning of migration timing, distance to travel and any quirks of the home stream's habitat.

Integrating hatchery and wild fish is still under intense scrutiny. Sawtooth hatchery is adding more data to flush out population limiting factors in habitat and within the genetic make up of hatchery-plus-wild hybrids. Today, Sawtooth participates in both segregated and integrated salmon programs.

We track returning salmon/steelhead in three categories: hatchery origin (segregated), integrated origin, and natural origin (wild). The number of natural-origin adults used as broodstock and the number of integrated hatchery-origin fish allowed to spawn naturally above the weir is based on a sliding scale to reduce risks to the natural population. We want a high Proportionate of Natural Influence (PNI) to encourage local adaptation and hopefully increase the productivity of naturally spawning population above the Sawtooth weir/trap and East Fork weir/trap.