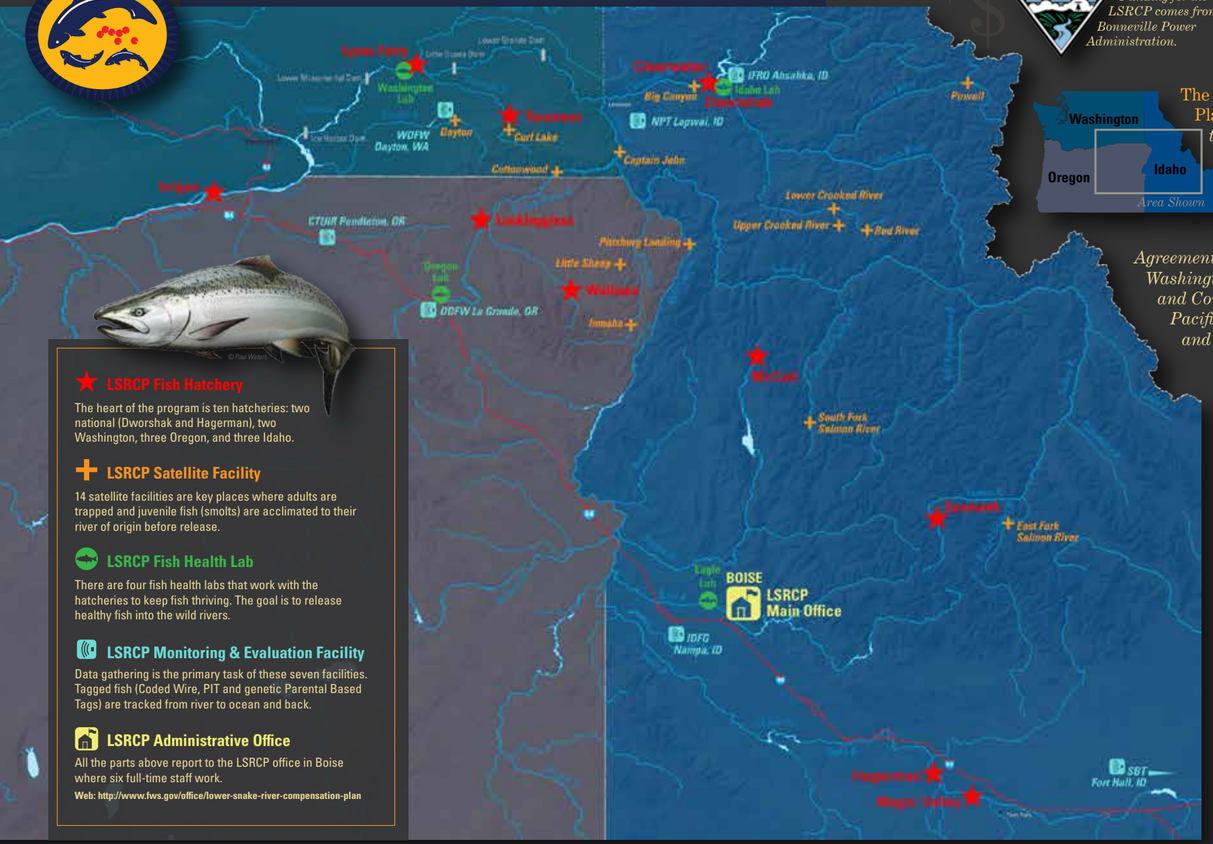
Lower Snake River Compensation Plan or LSRCP



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.

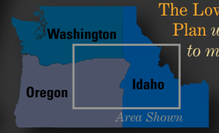
LSRCP Administrative Office

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



Area Shown

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.

Wallowa Hatchery yearly LSRCP steelhead production goals: 1,015,000 smolts released / 11,184 adults returning

1. Wallowa Hatchery supports recreational and tribal steelhead fisheries on the Imnaha and Grande Ronde Rivers by trapping adults, acclimating and releasing smolts into these rivers.
2. Trapping of adults occurs at Wallowa Hatchery and two satellite facilities: Little Sheep Creek on the Imnaha and Big Canyon on the Wallowa/Grande Ronde.
3. Artificial spawning occurs at all three adult trapping facilities. Green eggs are incubated at Wallowa to the eyed egg stage before shipping to Irrigon.
4. Wallowa Hatchery fish health is monitored by the Oregon Lab. Steelhead egg to smolt survival is 70%. Fish health is assessed at each acclimation site prior to release.
5. The closest monitoring and evaluation facility is in La Grande. Knowing the when and where of our fish allows us to adapt Wallowa Hatchery programs to current data trends.
6. Most Steelhead smolts return to Wallowa Hatchery for final rearing in November. Fishery scientists are evaluating acclimation periods to optimize smolt to adult survival.

Cover photo, Michael Humling, USFWS

U.S. Fish & Wildlife Service

Wallowa
Fish Hatchery

Wallowa Hatchery
82119 Fish Hatchery Lane
Enterprise, OR 97828

541/426-4467
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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 Wallowa Hatchery

Open daily 7:30 to 4:30.

Winter

In late February, adults return to Wallowa, Little Sheep & Big Canyon

Hatchery staff begin collecting adults at Wallowa, Little Sheep & Big Canyon

Spawning at Wallowa, Little Sheep & Big Canyon begins

Spring

This year's green eggs incubating

Pre-smolts come to Wallowa Hatchery, Little Sheep, & Big Canyon from Irrigon

Send eyed eggs to Irrigon Hatchery

Acclimation at Big Canyon,Little Sheep Creek, and Wallowa ponds

Oregon Lab checks fish health prior to release

Release prior year's smolts

Summer

Release local rainbow trout in northeast Oregon

Fall

Prepare for arrival of steelhead adults

Steelhead

THE HATCHERY GROUNDS

© Paul Waters

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

All dollar/value data from 2016

$85.84 steelhead value per angler day

Estimates of 130,000 steelhead angler days circa 1976 in the LSRCP project area (see tri-state map). Since 2010, that has increased to 475,000 days.

Tribal fishery support: Wallowa Hatchery efforts support traditional tribal fisheries in the Imnaha and Grande Ronde Basins. This support is by law with respect for United States treaties.

This icon is for the Columbia River Inter-Tribal Fish Commission. Go to CRITFC.org

Acclimation: Approximately one million steelhead smolts spend 1-5 months in the ponds at our acclimation site before their April release into the Imnaha and the Wallowa system. They need to imprint on this water's unique chemical make up in order to "smell" their way back as adults.

New steelhead from eyed egg to hatching sacfry a.k.a. alevin.

© Michael Durham

"Dream Double" by Derek DeYoung. www.DerekDeYoung.com

The rich reds, greens and steely blues of steelhead inspire artists and anglers alike.

Steelhead Names

It is the legendary "Fish of a Thousand Casts," a.k.a. the gray ghost, ice traveler, salmon trout, or square-tailed salmon. Several names refer to its rugged noggin: hardhead, metal head, and of course steelhead.

Science in 1836 named steelhead *Salmo gairdneri* after Dr. Meredith Gairdner, physician to the Hudson's Bay Company at Fort Vancouver. The name changed to *Salmo iridia* in 1855, *irideus* being Latin word for "rainbow."

Researchers in 1989 demonstrated that steelhead were physically and genetically most like other Pacific salmonids. Thus, steelhead moved from the genus *Salmo* (brown trout & Atlantic salmon) to that of *Oncorhynchus*. *Oncorhynchus mykiss* names steelhead and rainbow trout. *Mykiss* is Germanized *mykizha*, the name used 18th century Kamchatka, Russia where the "type specimen" was first described by Western science.

© Ron Osterloh

Adults collected from Spring Creek are ready for spawning.

Hatchery work is guided by science and as such is adaptive. The best practices are honed over time.

Natural Beauty

The Grande Ronde and Imnaha Rivers receive "summer run steelhead." Unlike their winter counterparts, these fish are sexually immature when leaving the ocean between May to October. Their reproductive organs develop during the months long freshwater journey inland.

Wallowa Hatchery traps these adults just as they're ready to reproduce. They look dramatically different from the silver-grays of their ocean phase. They turn a rich blue-green or olive, and are covered in black speckles. A striking red from gill plate to tale dances with iridescent hues of purple and violet along their lateral line—in short, they are beautiful. A big part of that beauty is that they exist in the natural wild world.

Wallowa Hatchery is careful to distinguish wild fish from hatchery. Wild fish are passed upstream above our traps to spawn in the wild river. Hatchery fish are different from wild ones. Not to the extent that dairy cows are different from aurochs, or that pugs are different from wolves, but biologists do refer to hatchery steelhead as "domesticated." It is important that hatcheries guard the genetic reservoir that wild steelhead represent due to its rich diversity. We do this by segregating hatchery from wild fish.

Awareness

Spencer Lee wrote a fascinating book about Oregon steelhead that may yet find its place among works by Thoreau, Rachel Carson, and Aldo Leopold. *A Temporary Refuge* recounts Lee's 14 years spent with wild summer steelhead. Listen to one of the many surprises that comes of close observation:

"One of the things that never ceases to amaze me is how curious these fish are about everything. I'd be willing to bet that these fish have as fine an appreciation of what's going on around this pool as I do, and perhaps finer, probably finer in a lot of ways."

After 14 seasons protecting what was locally known as the Dynamite hole on the North Umpqua River (because people occasionally threw lit dynamite into the river to "catch" steelhead), Lee states, *"I think I needed something to open my eyes to the beauty of the N. Umpqua and these emblematic fish… wild fish are the real deal, we still have them thank God, and hopefully we always will."*

We at Wallowa Hatchery strongly agree.

One way to protect the future of steelhead is to train the next generation of anglers.

Part of the~ LOWER SNAKE RIVER COMPENSATION PLAN