



LOWER SNAKE RIVER
COMPENSATION PLAN



FISH FOR THE FUTURE

MATT HOW GRAPHIC - USFWS



LOWER GRANITE DAM FISH LADDER

WHAT'S BEEN HAPPENING IN LSRCP

MAY 2021

Lower Snake River Compensation Plan

FISH FOR THE FUTURE

COORDINATOR'S CORNER



Be smart, Be analytical, Be thoughtful, but manage from the heart....

Doug Olson,
Retired FWS 5/21

I really like the hard hat and life jacket uniform approach.....makes you feel ready for anything that's coming at you. I might switch our office uniform policy at LSRCP just make sure we're always prepared.....jk!

Joking aside, I had a great visit to Lower Granite Dam with Bill Young, NPT, and Jeremy Pike, Dworshak National Fish Hatchery, along with Jay Heese and some ambitious reporters from The Guardian. More on that visit later in this monthly update.

The spring Chinook salmon return is in full swing back to the LSRCP projects. I'm amazed out how refined our tracking, conversion, and fishery season setting has become over the decades. Anglers armed with real-time dam passage and trapping data are becoming as efficient as ever at harvesting these fish on exceptionally limited returns. Ensuring brood needs for the LSRCP program in these return years is a monumental task and thanks for everyone's effort in those arenas. A solid future rests on starting with high-quality progeny from our returning adults.

I didn't make it salmon fishing yet, but our family spent some time chasing kokanee on area waters. Certainly more than just a constellation prize, but I'm still hoping our daughters will see some meaningful progress in our quest to fulfill Fish for the Future.

Stay safe and have fun!

-Nate



FALL CHINOOK ACCLIMATION PROGRAM

PITTSBURGH LANDING FCAP



I had a great opportunity to visit with Mike Key, Nez Perce Tribe, and Derek Gloyn, WDFW, about the Fall Chinook Acclimation Program. These dudes have been living and breathing Fall Chinook for a lot of years, and the fruits of their labor are paying off.

The Fall Chinook Acclimation Program (FCAP) has been going since 1999. Basically, Age-0 Fall Chinook are reared at Lyons Ferry Fish Hatchery and then transferred to upriver Acclimation sites where they spend about 3 weeks acclimating before release at around 50 fpp in May.

The program really highlights a successful partnership and a testament to the hard work of all the staff involved. Right now, things are pretty darn good from a historical perspective for Fall Chinook. The challenge will be continuing those successes in the future in the face of changing climate, corridor, and ocean conditions.



LOWER GRANITE



TUG PUSHING AN 8000 SERIES BARGE

The smolt migration season is in full swing during May at Lower Granite Dam. Bill Young, Jeremy Pike, Jay Hesse, and I had a chance to tour operations and ride along with some transported smolts from Lower Granite Dam to Little Goose.

Since it's a high spill year, we only carried 7,000 fish from Granite on an 8000 series barge. The capacity of an 8000 series barge is 75,000 pounds, i.e. about 1.5M spring Chinook at 20 fpp or 340,000 steelhead at 4.5 fpp. After about 3 hours, we locked through Goose and the tug crew hooked up an additional 4000 series barge. We jumped off, and they continued on to Mile Marker 130 (up from the estuary) to release the smolts 40 hours after they were loaded.

The barges pump river water continuously to the smolts on the journey. With higher spill caps (125%) the Corps of Engineers has installed TDG monitors on the barges. Current degassing is packed columns for 4000 and 8000 series barges, but only spray bars for the 2000 series barges. We saw river level TDG's in the 118% range, but measured TDG in the fish holds was closer to 101%. The Corps is actively monitoring TDG in the holding raceways (where fish are collected before barge loading) since raceway TDG's are projected to exceed 110%.

It's hard to describe the sheer hydraulics happening at the dams, but you can certainly see the increased TDG levels. The river is efflorescing for miles and surface TDG levels don't dissipate between dams. Corps data reflects 115% TDG levels at the Little Goose dam intake. This is gas driven into solution by spill operations at Lower Granite Dam - 37 miles away!



8000 SERIES BARGE WITH A PARTIAL LOAD OF SMOLTS



KODAK MOMENT - THE LOCK GATES OPENING AT LITTLE GOOSE DAM



TRANSPORT/ IN-RIVER

The Comparative Survival Study (CSS) examines if barging can mitigate the effects of Lower Snake River Dams. Data from 2006 on is available for multiple LSRCP facilities and others. A useful metric is the Transport to In-River rate (TIR). This rate compares the Smolt to Adult Return (SAR) of barged smolts to the SAR of smolts left to migrate down the river through multiple passage routes.

As an example, in migration year 2015, the SAR rate for transported smolts reared at Lookingglass and released in the Imnaha was 0.45%. The smolts that stayed in the river that year had a SAR of 0.07%. The corresponding TIR of this group was 6.44. Essentially in that particular year, transported smolts returned at a rate of 6 to 1 for that release.

That example is particularly skewed to poor In-river survival; only 30% of the In-river fish survived to Bonneville Dam for that release group. And, barging brings on additional issues of increased homing problems and straying. Current flex spill strategies are optimizing In-river conditions to try to maximize returning adults. In 2021, less than 6% of total smolts were barged. This is 12% of the 10-year average.

Based on historic TIR data for LSRCP, we would expect a 21% reduction in spring/summer Chinook adult returns by dropping to 12% of historic transport levels. Hopefully, increased spill also increases In-river survival rates above the 42% average. CSS models predict that if "reach" survival passes 67%, In-river SAR's will beat transported SAR's.

Release to Bonneville Survival	
Clearwater	44%
Dworshak	47%
Rapid River	51%
McCall	43%
Sawtooth	31%
Lookingglass	42%
Average	43%

TIR Rates	
Clearwater	1.20
Dworshak	1.55
Rapid River	1.50
McCall	3.02
Sawtooth	2.09
Lookingglass	2.05
Average	1.90



TISH SPAWNING COHO - LEWISTON TRIBUNE PHOTO

TISH WHITMAN

It is with deep sadness that we inform you of the passing of Tish Whitman. Tish passed away on Tuesday May 4, 2021. She has been a valued member of our Fisheries Department and Administrative team and will be greatly missed. She had a warm presence and smile as she carried out her work at the Department. Please keep Tish's family in your thoughts as they go through this difficult time. Tish, in one word, is invaluable to our team in the Production Division and the Tribe's Fisheries Department. Her talent, knowledge, dependability, and hardworking nature made for a great "can-do" attitude about any task she was asked to tackle. We all know that when we asked her to do something she would get right on it and provide what we asked for in a professional and timely manner. Those around her placed full trust and confidence in her to handle budgets, reports, memos, billings, computer problems, personnel files and issues, and anything we ask her for help with. In addition to administrative talents, Tish was great at duties associated with fish culture and field work activities. She was always sought after on spawn day for coho at the hatchery because it's well known that she does the best, most careful job in collecting eggs from the female salmon. With a cheerful attitude Tish works hard in her office one day and then puts on rain gear and waders the next to work long hours in cold water without complaint. She also helped hand out salmon to tribal families for the subsistence distributions.

Tish also went back to school and received a Bachelor of Science degree from the Northwest Indian College in Native Environmental Science in June 2019.

Her talent, her personality and her care for her fellow employees, and to our environment and natural resources, will be greatly missed. We are deeply honored and grateful for the times we had with her in work and in life.

-Joe Oatman



TRIBAL TRIBUNE PHOTO



TISH GRADUATING IN 2019
PHOTO - RYAN OATMAN