



LOWER SNAKE RIVER COMPENSATION PLAN



FISH FOR THE FUTURE

MATT HOW GRAPHIC - USFWS



WESTERN PEARL SHELL MUSSEL - ALEXA MAINE CTUIR

Lower Snake River Compensation Plan

FISH FOR THE FUTURE

COORDINATOR'S CORNER

September marked a complete year for me in the Coordinator role at Lower Snake River Compensation Plan. This month, I had a chance to visit the new Walla Walla Hatchery facility operated by the Confederated Tribes of the Umatilla Indian Reservation. What a great visit and great people!

It's hard to believe that we're still in the middle of COVID-19 and I'm sure its touched all of you in some way. My undergraduate college roommate called recently still on oxygen after 5 days of blood transfusions in an Emergency Room hallway. He said, "I never consciously decided I wouldn't get a vaccination, but I never got around to it". Hard to believe a guy I packed two Alaskan moose out of the Brooks Range three years ago was cut to his knees that quickly. The Emergency Room doctor told him he likely wouldn't have made it through the night when he finally checked in - at 42 years old, he was on the verge of cardiac arrest.

We're in trying times. I got vaccinated back in March. Frankly, I guessed we'd have a mandate for Federal employees and I didn't think very hard about it. I know our LSRCPC team has corners tearing between our passions and mandates. I've read resignation letters even this week and it tears me apart that we're here. I respect each and everyone of you and the tough choices you have. The best I can muster is: Make a decision and move onward.

Keep your chins up and thanks for everything you're doing out there for *Our Fish for the Future!*

-Nate

Your destiny
will never be
found in the
rearview
mirror.

- Mandy Hale

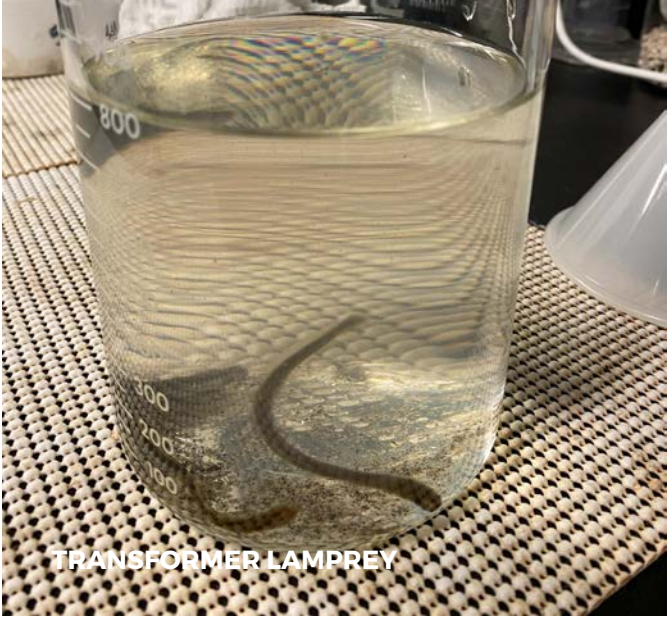


EMY WIESE AND THATCHER ROYSE - FALL RESIDENT FISHING HAS BEEN FANTASTIC!

CTUIR AQUATIC PROPAGATION LAB



RECIRC SYSTEM FOR MUSSELS AND LAMPREY



TRANSFORMER LAMPREY

Walking inside the Walla Walla Community College Water and Environment Center, you're immediately standing on the Walla Walla Watershed etched in granite beneath your feet. It's a striking mural accentuated by Gary James enthusiastically describing a lifetime of projects aimed towards restoring these areas. Tucked just a few doors inside, lies Alexa Maine's Aquatic Propagation Lab for the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), bustling with dozens of tanks and recirculating aquaculture systems (RAS).

The lab is working on mussel and lamprey propagation and holding techniques. My tour included a beaker holding a transformer lamprey. I had to double check my ears that transformer lamprey are aged in years - incredible! If my memory is correct, the beaker transformer was at least 5 years old. They are refining the techniques of captive lamprey production towards effective repopulation - cool stuff there!

In addition, the lab is full of host darters and other fish used for mussel propagation work. Mussel glochidia (larvae) are exceptionally species specific to what fish gills they'll attach and thrive on. Hence, in addition to multiple mussel species, Alexa and staff keep dozens of fish aquaria thriving as well. Great work and an excellent facility!

Our FIRST FOODS Management Approach
Department of Natural Resources Mission
 To protect, restore, and enhance the First Foods water, salmon, deer, cou, and huckleberry - for the perpetual cultural, economic, and sovereign benefit of the CTUIR. We will accomplish this utilizing traditional ecological and cultural knowledge and science to inform:

- 1) Population and habitat management goals and actions.
- 2) Natural resource policies and regulatory mechanisms.

WATER **Cúúś** WATER RIGHTS
 SALMON **Núśux** FISHING RIGHTS
 Deer **Yáamaš** HUNTING RIGHTS
 Cou **Xáwš** GATHERING & GRAZING RIGHTS
 Huckleberry **Wíwnu**

WATER RESOURCES PROGRAM
 FISHERIES PROGRAM
 WILDLIFE PROGRAM
 RANGE/JAG AND FORESTRY PROGRAM

CULTURAL RESOURCES PROTECTION PROGRAM
 FIRST-FOODS POLICY PROGRAM
 OUTREACH & EDUCATION

CTUIR FIRST FOODS APPROACH
 Confederated Tribes of the Umatilla Indian Reservation (CTUIR)



WATER AND ENVIRONMENTAL CENTER - CORPINC CONSTRUCTION



WALLA WALLA CHINOOK

WALLA WALLA HATCHERY

Walla Walla Hatchery Quick Facts:

- 500,000 Smolts - Walla Walla spring Chinook stock
- SAR Goal = 0.55 SAR
- Adults = 2,750
- Growout - Ten 30' circulars
- Early Rearing - Sixteen 10' circulars
- Research - Three 5' circulars and a 15' trough

I had a chance to visit spawning operations at Walla Walla Hatchery in September. I've been anxious to see the facility firsthand after the presentation by Jon Lovrak at the virtual LSRCP meeting and the recent virtual dedication:

https://files.ctuir.org/WWHatchery/Walla Walla Hatchery Dedication-20210827_212945-Meeting_Recording.mp4



JON LOVRAK SORTING CHINOOK

We were able to pull Jon off the sorting table long enough to get a tour of the facility. The final touches are still being added, but the facility and operations are going to be top notch. It's really nice to see the details added to ensure visitor viewing access without interrupting staff or fish biosecurity. And, I'm always excited to see more use of circular tanks as we dial those into operations around the basin.

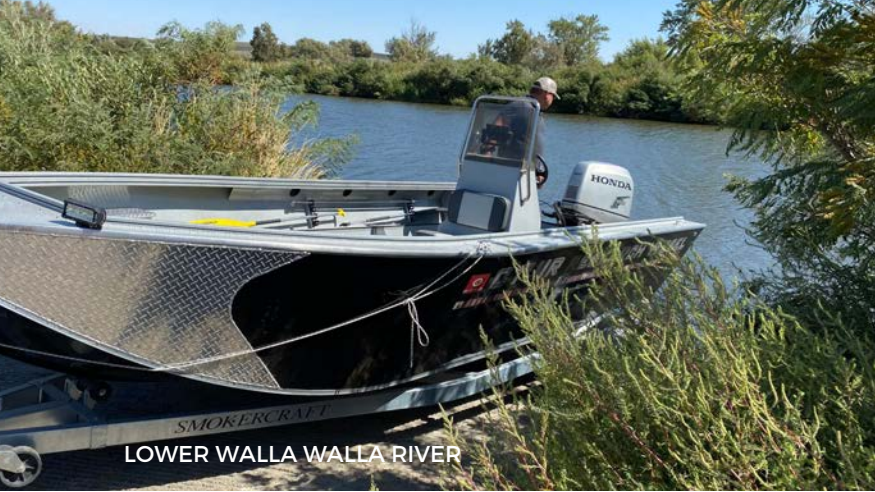
Jon has been in the hatchery business a long time, and I was impressed by tremendous thoughts and ideas that went into design work. They've created a rearing environment with an emphasis on low density ($DI < 0.2$). Given the current corridor and climate challenges, I'll be excited to track the combination of swimming velocities and low densities on adult success. Good luck!



WALLA WALLA 30-FOOT CIRCULARS



WALLA WALLA VISITOR VIEWING AREA



FLOATING PIT ARRAY

Travis Olsen is an unassuming biologist with the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). He took myself, Gary James, and Gene Shippentower (CTUIR) to tour the floating PIT tag array at the lower end of the Walla Walla drainage. The banks of this stretch are part of the McNary National Wildlife Refuge and lined with endless willows in places.

After an hour drive out of Walla Walla, we arrived at a boat launch just wide enough for the trailer and took a short run upriver to the array. On the trip, Travis relayed some interesting stories about tracking tags with floating arrays over the past couple of seasons. With a solar array, battery power, and remote data transmission and cameras, there have been some interesting stories over the years.

The system is neat and is capturing a large percentage of outmigrating tags from the system. To allow navigation, two arrays work in tandem on each river bank. The detection FINS are submerged about 6 feet in depth to provide detection almost to the bottom depth of 8 feet.

Floating antennae offer some distinct advantages to dealing with fluctuating water levels, debris loads, and installation. Certainly another tool in the box when it comes to monitoring and worth a trip to visit Travis if you get a chance.





FY22 PROJECTS

Thank you to the Asset Management Team members that helped finalize the Fiscal 2022 upcoming maintenance projects. We've got an ambitious list for this upcoming Fiscal Year as we try to get further ahead of break downs. That means we've loaded our FY22 budget with more projects than we anticipate for FY23. This team did a good job balancing the breakdown repairs with maintaining facilities and taking shots at meeting more of the LSRCP adult targets. It's going to be a busy year!

2022 BASE PROJECTS FY2022 BUDGET TARGET = \$6.0M				
2022	LOOKINGGLASS	Settling Pond, Houses, Equipment	CONSTRUCT	\$179,000
2022	TUCANNON	Replace roof both residences, some chimney repair Res #1	CONSTRUCT	\$90,000
2022	MCCALL	Replace shade panels, Dredge Settling Pond and Fuel Reduction	CONSTRUCT	\$500,000
2022	LYONS FERRY	Check valves & gate valves at each pumpstation - Design/Planning	ENGINEERING	\$125,000
2022	IRRIGON	Replace back-up generator pump station #1 and Raceway valves	CONSTRUCT	\$600,000
2022	LYONS FERRY	Marmes new generator bldg, in lieu of controls bldg (high bid in FY21)	CONSTRUCT	\$600,000
2022	HAGERMAN	Replace residence #4 and Domestic Water	CONSTRUCT	\$575,000
2022	CLEARWATER	Repair STL raceway walls and adult fence	CONSTRUCT	\$140,000
2022	SAWTOOTH	Fish pond walkway/access repair (education/outreach)	CONSTRUCT	\$20,000
2022	YANKEE FORK	Fish release structures improvements - design; other	ENGINEER	\$65,000
2022	SAWTOOTH	Weir, fill (1/3) plunge pool in front of weir - design, permit, construct	CONSTRUCT	\$50,000
2022	DWORSHAK	Raceway Valves, VFD, Freezer, Electrical Disconnects	CONSTRUCT	\$175,000
2022	DWORSHAK	Shade cover over CHK raceways - design / build	CONSTRUCT	\$2,000,000
2022	MCCALL	DESIGN - adult holding & spawning facilities at McCall	ENGINEER	\$250,000
2022	LOOKINGGLASS	Expansion scoping	ENGINEER	\$10,000
2022	DWORSHAK	Chinook raceway outfall cross connect to fish ladder - scoping / design	ENGINEER	\$50,000
2022	ALL FACILITIES	Personnal Property replacement program	EQUIP PURCHASE	\$400,000
2022	Unassigned	Unassigned		\$170,000
SUBTOTAL FY2022 BASE PROJECTS				\$5,999,000



JORDEN SMITH, PROJECT ASSISTANT, ODFW

JORDEN SMITH ODFW

Jorden grew up in Bozeman, MT, and moved to Eastern Oregon four years ago. She first joined the ODFW LSRCP family on February 3rd, 2020, as a seasonal worker creeling summer Steelhead on the Wallowa River. Jorden has incredible multi-tasking skills, superb organization skills, an insatiable appetite for learning, an eye for detail, and a willingness to tackle any assignment. Since working full time was not enough of a challenge, Jorden decided to earn a Master's degree in Natural Resources Conservation from Oregon State University. For her capstone project, Jorden evaluated a 20-year data set comparing residual steelhead estimates from the Wallowa stock steelhead program. One of Jorden's greatest accomplishments has been helping the NE Oregon Fish Research team develop electronic data collection forms using the ArcGIS Survey123 platform to streamline data collection for both Chinook spawning ground surveys and hatchery spawning at Lookingglass.

Additionally, for the 2021 survey season, Jorden integrated Survey123 with the ArcGIS Field Maps app to allow for near real time display and data sharing of Chinook redd and carcass locations for all the NE Oregon stream surveys. By working with biologists from the Nez Perce Tribe and the CTUIR, Jorden was successful in sharing the electronic Chinook spawning ground survey form and custom maps created for Field Maps with over 20 field biologists who work within our co-management team, thereby ensuring consistent and uniform electronic data collection. When asked about her favorite part of Fish for the Future, she said that she is proud of the role we get to play in providing a natural resource for others to enjoy. In her own words, Jorden said "What we do goes far beyond rearing and releasing fish. These fish hold immense cultural value, provide angler opportunities, and play an important role in our ecosystem. I just think it's an honor to be a part of that, in any capacity!"

-Joseph Feldhaus



JORDEN WITH BROODSTOCK



REDD SURVEY WORK