



# Garrison Dam National Fish Hatchery Complex

## Restoring America's Fisheries

*"We work with our partners and engage the public, using a science-based approach, to conserve, restore and enhance fish and other aquatic resources for the continuing benefit of the American people."*

August 2020

### Fish Culture

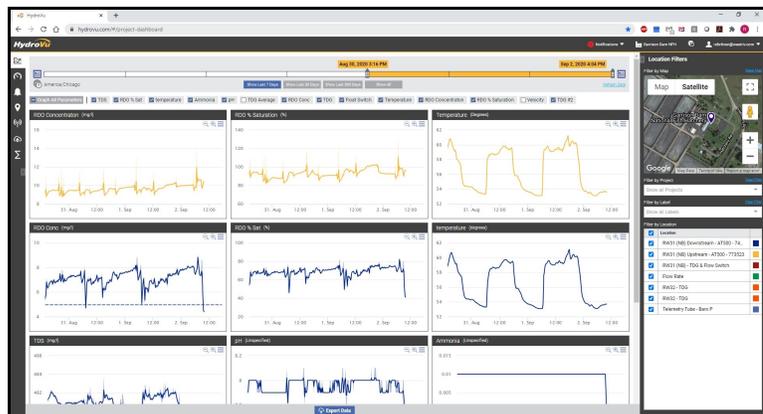


Loading Wyoming Game and Fish distribution truck with walleye

Extensive fish culture at Garrison Dam NFH concluded with the harvest of our advanced fingerling walleye ponds. The request of 201,000 advanced fingerlings was exceeded with the production of 278,000 three inch fish. The walleye were stocked in twelve North Dakota lakes and five reservoirs in Wyoming.

Shovelnose propagation is ongoing with the fingerlings gaining an inch this month with the fish averaging 5.3 inches. Chronic low level mortality occurred at the beginning of the month that was remedied with salt treatments. Fish were sent to the Wyoming fish health folks for certification prior to next month's stockings. Results were good with no listed pathogens detected. There are 5,070 shovelnose fingerlings currently being propagated to meet restoration stocking goals in the Bighorn River. These fish will be PIT tagged and released in the Bighorn near the town of Basin, Wyoming in late September.

Trout propagation is ongoing with 88,000 eight inch fish on station from three lots as well as a couple of lots being propagated for forage next month. We are continuing on with our degassing experiment using nanobubble generation to reduce TDG issues. With higher water temperatures this past month and diurnal swings of 8 degrees Fahrenheit, flows were increased to all raceways and oxygen injection started in the control raceways to maintain DO levels above 5ppm during feeding. The HydroVu monitoring platform has been very useful in assessing changes made to our water flows and treatments.



Cloud based HydroVu graphs with water quality data displayed

## *Upcoming Activities*

Advanced fingerling tiger muskellunge from Wyoming's Speas Fish Hatchery will be arriving at Garrison Dam NFH for finishing on live food prior to stocking in area lakes.

Continued monitoring of our sensors and tweaking of the oxygen generation to provide optimal water quality.

Maintenance on the hatchery's equipment and grounds.

## *Partnerships*

Improvements were made to the canoe/kayak launch area at Valley City NFH in August. A gravel lot was built to accommodate the increasing number of people who regularly use the area to fish from or launch watercraft. Previously there were only three spots designated for parking and often people were forced to park on the roadway. This lot will also provide additional parking for outreach events at the hatchery. Special thanks goes to the North Dakota Game and Fish Fisheries Development Division for supplying the gravel for this project.



Canoe/Kayak launch area at Valley City NFH

## *Public Use*

The visitor center at Garrison Dam remained closed for the month of August due to a local rise in COVID-19 cases and a hatchery volunteer testing positive.

## *Maintenance*



Work was completed around kettles at Valley City where the dikes were sloughing and silt and mud were filling kettles, particularly during harvest or heavy rain events. Dirt was removed from around the kettles and reshaped with the addition of rock to stabilize the dike sides to prevent future sloughing.



Dike roads around ponds and external kettles were reshaped and gravel was added in areas that were

overgrown or covered with dirt. This will allow staff and state personal picking up fish easier access to kettle areas and eliminates the potential of getting stuck. Gravel was purchased by the ND Game and Fish.

Installation of new steel siding has begun on the Holding House at Valley City NFH. This replaces the old damaged vertical steel siding that was previously on the building. In addition new insulation was installed increasing heating efficiency.



Before and after photos of the Holding House at Valley City NFH. The new siding compliments the rest of the hatchery buildings.



Never ending repairs to the water lines at Baldhill NFH

Repairs at Baldhill NFH were finished in August. Four breaks were found earlier in the year (two on freshwater lines to external kettles and two on drain lines to external kettles) that negatively affected fish production. All four breaks were fixed and sink holes were filled in. The piping that was encountered on the drain lines was transite (asbestos-cement) pipe and in an effort to avoid having to cut into the pipe and exposing staff to asbestos fibers the drain lines were wrapped and backfilled with concrete. Fresh water lines were transite transitioning to steel piping; repairs were made and rerouted around concrete using Hi-Max fittings and PVC. The system was tested following repairs to ensure that the problems didn't still exist.

Yard maintenance was initiated in an effort to fill in the sink holes located variously throughout the hatchery grounds. Numerous holes have been filled and re-seeded with grass to prevent excessive wear on hatchery mowers and equipment. This is an ongoing process.

A rolltop cover was installed on the hatchery alfalfa wagon so the staff doesn't have to climb on top of the wagon to fill. The trailer was also re-wired so the lights and trailer breaks work again.

## *Hatchery Quarters*

The vacant house at Valley City NFH received a few more upgrades in August in preparation for the new employee. Old light fixtures were replaced with new LED efficient lighting and a new sink was installed. New trim was installed in the basement around the new sheet rock repair.

The final quarters at Garrison Dam NFH was refurbished with composite decking and steel railing. The 25 year old green treated decking was in need of replacement and thanks to a couple of hatchery biologists the project is nearly complete.



Composite decking upgrade on quarters