State-of-the-Art Aquaculture Site Built for Walleye Rearing

Lac du Flambeau Tribe Raises and Restocks Fish

Above: (Left to right) Chris Borden, NRCS Soil Conservationist; Celie Borndal, NRCS Soil Conservationist; Larry Wawronowicz, Lac du Flambeau Tribe Natural Resources Director; and Tom Melnarik, NRCS Soil Conservation Technician; view the new aquaculture pond site.

The Lac du Flambeau Tribe has inhabited the Lac du Flambeau, Wisconsin, area since 1745. The Tribe acquired the name from its gathering practice of harvesting fish at night by torchlight. The Reservation, established by the Treaty of 1854, includes 86,000 acres of land, 24,000 acres of wetlands, and has 260 lakes and 65 miles of streams and rivers. Sustainable conservation and protection of natural resources has always been a goal of the Tribe. Established in 1936, the Tribal Fish Hatchery works to raise and restock fish to meet their sustainability vision. Over the last 30 years, the Tribal Fish Hatchery has restocked the lakes with well over 415 million walleye. "From its small fish hatchery beginnings to today, Lac du Flambeau now has a multi-faceted, multi-program Tribal Natural Resources Department," said Larry Wawronowicz, Natural Resources Director, Lac du Flambeau Tribe.

The Lac du Flambeau Tribe has always been recognized as good stewards of the land and management of natural resources has been a high priority. Their focus is to protect pristine areas, restore degraded natural and wildlife resources, and help build strong communities. Common missions and participation in the Wisconsin Tribal Conservation Advisory Council (WTCAC), an advisory group to NRCS consisting of the eleven federally recognized tribes in Wisconsin, have fostered a strong conservation partnership with the USDA Natural Resources Conservation Service (NRCS). NRCS has partnered with the Tribe on multiple technical and financial assistance projects through the years to combat shoreline erosion, improve wildlife habitat, improve forest health, improve wild rice populations, build hoop houses, and much more. All of these projects were possible through NRCS's Environmental Quality Incentives Program (EQIP) and the Conservation Stewardship Program (CSP). "We've partnered with the Tribe to help get conservation practices on the ground. We've addressed resource concerns on more than 11,000 acres of tribal land, through EQIP, since 2009, and we recently re-enrolled more than 28,000 acres of forestland in CSP," said Michael Stinebrink, District Conservationist, Rhinelander Service Center. The most recent project partnership between the Tribe and NRCS includes the renovation of five aquaculture ponds through EQIP.

After 30 years, the original fish pond liners had fallen into disrepair and the harvest of fish was labor intensive. Since reconstruction, the facility has gone from 13 small ponds, having 5.4 acres of usable rearing space, to 6 large ponds with over 7 acres of surface area. Two newly-constructed, centrally located, fish gathering structures, known as kettles, save the hatchery staff the labor of harvesting each pond individually and reduce stress and mortality on the fish, during harvest. NRCS provided technical and financial assistance to redesign the ponds and implement the renovations, including a new network of water supply and aeration lines and a sediment tank treating the water before entering an adjacent wetland.

Helping people help the land

Wisconsin

Left: Lac du Flambeau Tribe aquaculture pond site during construction.

"This project is taking out old ponds and putting in new ones that are more state of the art, giving more flexibility and ability to harvest the fish that are being raised for stocking, and getting them up to larger sizes and numbers," said Wawronowicz. "Before, the Tribe was rearing 2-4 inch fingerlings in the small ponds, and now they can raise 6-8 inch fish for better survivability in the wild," said Tom Melnarik, Soil Conservation Technician, and designer of the new aquaculture pond site layout. "Raising the fish larger is necessary due to shoreline development, increase in aquatic invasives like zebra mussels, and climate change," said Wawronowicz. The Tribe wants to provide a sustainable supply of walleye for tribal and non-tribal fishing in reservation waters. "Through all the successful projects, including the renovation of aquaculture ponds, this partnership has been a win-win for the agency and the Tribe," said Chris Borden, Soil Conservationist and Tribal Liaison.

In spring, fish spawn and Tribal spawning crews collect and fertilize eggs. Most fish are hatched by early June when the aquaculture ponds are stocked with the walleye fry. Walleye fry feed on zooplankton until approximately 6–8 weeks old. Their diet then changes to aquatic insects and other fish species. Fish are raised from the size of a mosquito in spring to 6–8 inches in fall and are then released into reservation waters. The new aquaculture ponds will help the Tribe to restock over 200,000 fish per year in area lakes and other waterways. "We wouldn't have been able to get this project done without the technical support, financial assistance, and partnership of the USDA–NRCS," said Wawronowicz. "This pond project was needed, and working with NRCS has been a great experience."

"We wouldn't have been able to get this project done without the technical support, financial assistance, and partnership of the USDA–NRCS."
~ Larry Wawronowicz

NRCS employees (Left to Right) Chris Borden, Tom Melnarik, and Celie Borndal survey the pond site.

January 2016