

Machickanee Flowage Drawdown Stiles Hydroelectric (FERC No. 1981)

Public Information Meeting

June 15, 2021





Stiles Hydroelectric Project is located on the Oconto River, owned and operated by Oconto Electric Cooperative (OEC)

Project Overview

The Project consist of:

- 30-foot high earthen embankment dam
- Powerhouse with a 1,000 kW capacity
- Tainter gate spillway containing three bays
- 463-acre Machickanee Flowage

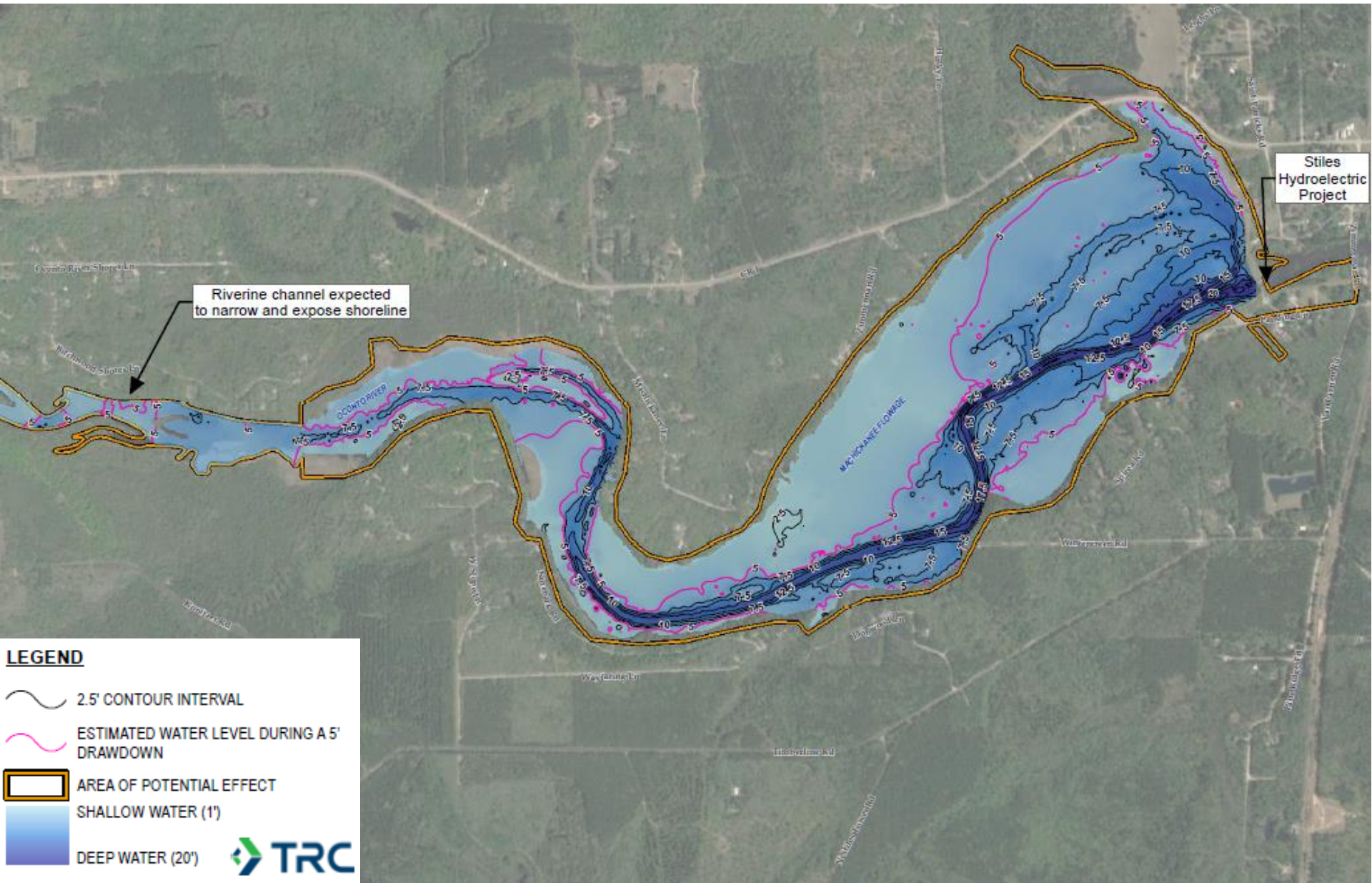
Project Overview

- FERC License calls for periodic scheduled maintenance drawdowns to protect near-shore fish spawning and nursery activities
- OEC has been consulting with Wisconsin Department of Natural Resources (WDNR), U.S. Fish and Wildlife Service (USFWS), and Machickanee Advancement Association (MAA) on drawdown details
- Machickanee Flowage Drawdown Management Plan filed with Federal Energy Regulatory Commission (FERC) in November 2020 for review and approval
- A drawdown of the Machickanee Flowage was last carried out in 1981 as part of a river restoration project by WDNR

Drawdown Management Plan

- OEC is planning a temporary five-foot partial drawdown of the Machickanee Flowage
- Purpose of the drawdown
 - Management of aquatic invasive species,
 - Manage excessive plant growth, and
 - Consolidation of flowage substrate for navigation improvement

Approximate Drawdown Area





Approach & Schedule

Drawdown timing:

- Approximately 3 months
- Starting in July 2021

Three general phases:

- Ramping down water levels in the flowage, 10-14 days at 3 to 6 inches per day
 - Maintaining levels at the drawdown depth for ~70 days
 - Ramping up the water levels to normal operation range, ~10 days
- **Schedule may be subject to change due to weather events**

Approach & Schedule, Cont.

- Drawdown rate (3" – 6"/day) will be half of rate used in 1981
- Once five-foot drawdown level is reached, Project will return to run-of-river mode
- During refill the Project will temporarily deviate from run-of-river mode until normal full-pond levels are achieved



Stranded Organism Relocation



Inspections of dewatered areas for stranded fish, mussels, and tadpoles



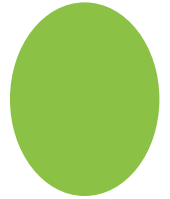
Organisms will be relocated to flowage



Trained volunteers will assist with stranded organism relocation



Precautions will be taken to prevent spread or introduction of invasive species



Stranded Organism Relocation Protocols

- Surveys to be conducted during morning hours (starting around 7:00 AM), when ambient temperature is cooler
- Gear and equipment (e.g. boots, nets, specimen containers) will be decontaminated and disinfected daily to prevent spread of invasive species
- Animal collection containers to be filled with freshwater directly from flowage



Stranded Organism Relocation Protocols, Cont.

Mussels will be hand captured and briefly stored in water filled containers

- Captured mussels will be placed on or in substrate outside of the planned dewatering footprint



Fish that can be reasonably captured will be collected for relocation via netting

- Multiple net/mesh sizes
- Seine nets used when appropriate
- Fish will either be placed directly back into the flowage, or will be placed into water filled containers for transport to flowage waters
- Tadpoles to be relocated in the same manner as fish when feasible



Invasive Species

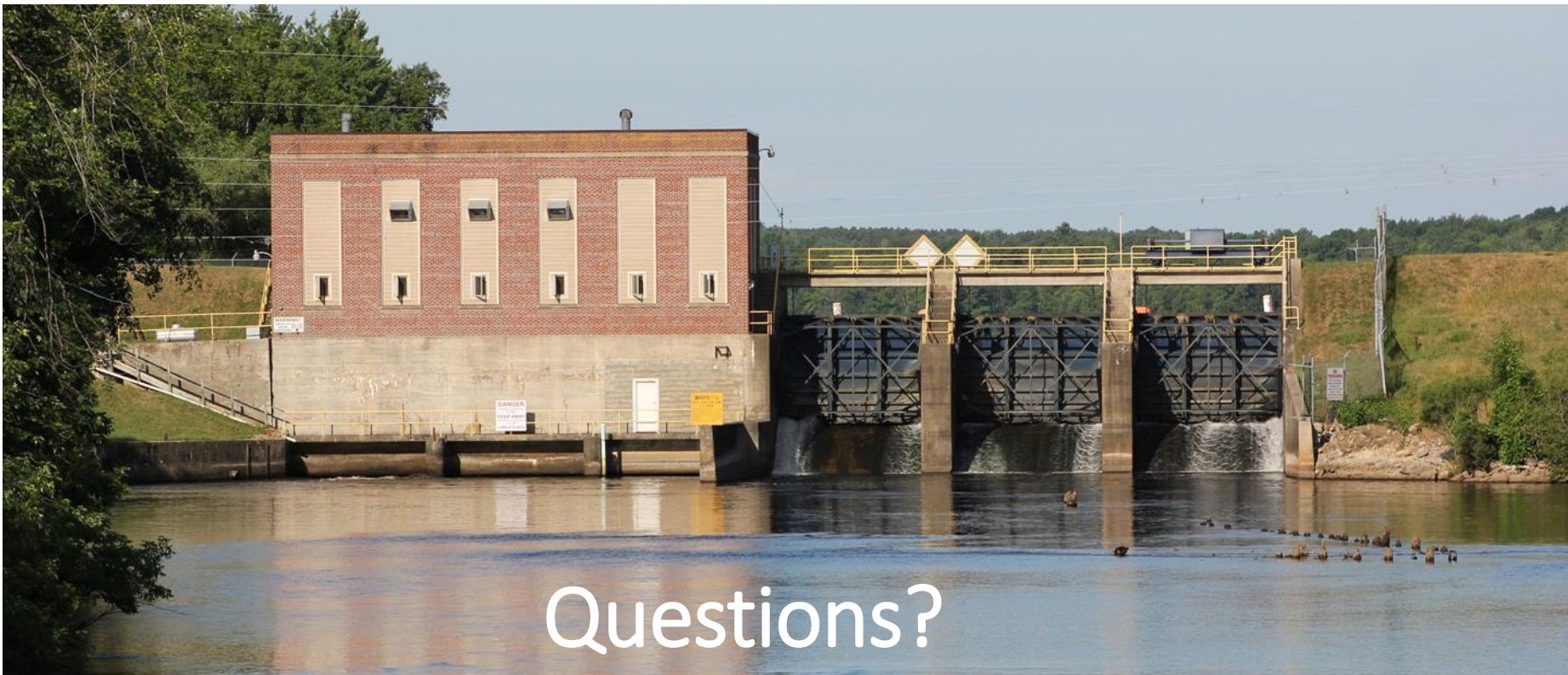
- FERC License Article requires monitoring and management of purple loosestrife
- OEC will continue to monitor purple loosestrife on OEC-owned lands
- OEC is encouraging landowners to manage purple loosestrife on private properties
- Information on management techniques will be provided to landowners by OEC



Recreation & Flowage Use

- Public foot traffic in the exposed sediments may pose a safety risk
- Public asked to stay away from exposed flowage bed
- Disturbing sediments may require permits from WDNR
- 4 to 11 feet of water will remain in river channel during drawdown
- Access to flowage from piers will vary
- Public boat landing – closed during drawdown





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