

Trout Habitat Preservation Project/ Goggins Outlet

History:

Constructed in 2000, this project provides a stable surface water outlet to the Goggins, South and North School Section, and Plaisted lakes. The outlet elevation is set at 970.5, which was determined to be the approximate natural runout elevation for these basins and protects all upstream homes, septics and wells. The highest recorded elevation for these lakes was over 972. Without the project, the overflow elevation would have been approximately elevation 980, risking approximately a dozen homes.

Project Benefits:

This project was designed to capture, store and infiltrate the overflow from the Goggins-School Section lake system prior to discharge to the downstream wetland, which is considered the headwaters of Brown's Creek.

This innovative outlet project has numerous benefits beyond flood control (e.g., runoff retention, increased wildlife/pollinator habitat, water quality treatment, groundwater recharge) and won the Minnesota Association of Watershed Districts (MAWD) Project of the Year Award in 2004.

Retrofit Improvement 2007:

Since the project was installed, the THPP has undergone one retrofit in response to decreasing performance (infiltration) to install an infiltration trench in Basin 1 and modify the Basin 1 outlet structure to act as an equalizer to allow water to flow from Basin 3 (that has very little infiltration capacity) into Basin 1. The infiltration trench was installed to a depth where contact with a subsurface lens of coarse sand helps infiltration.

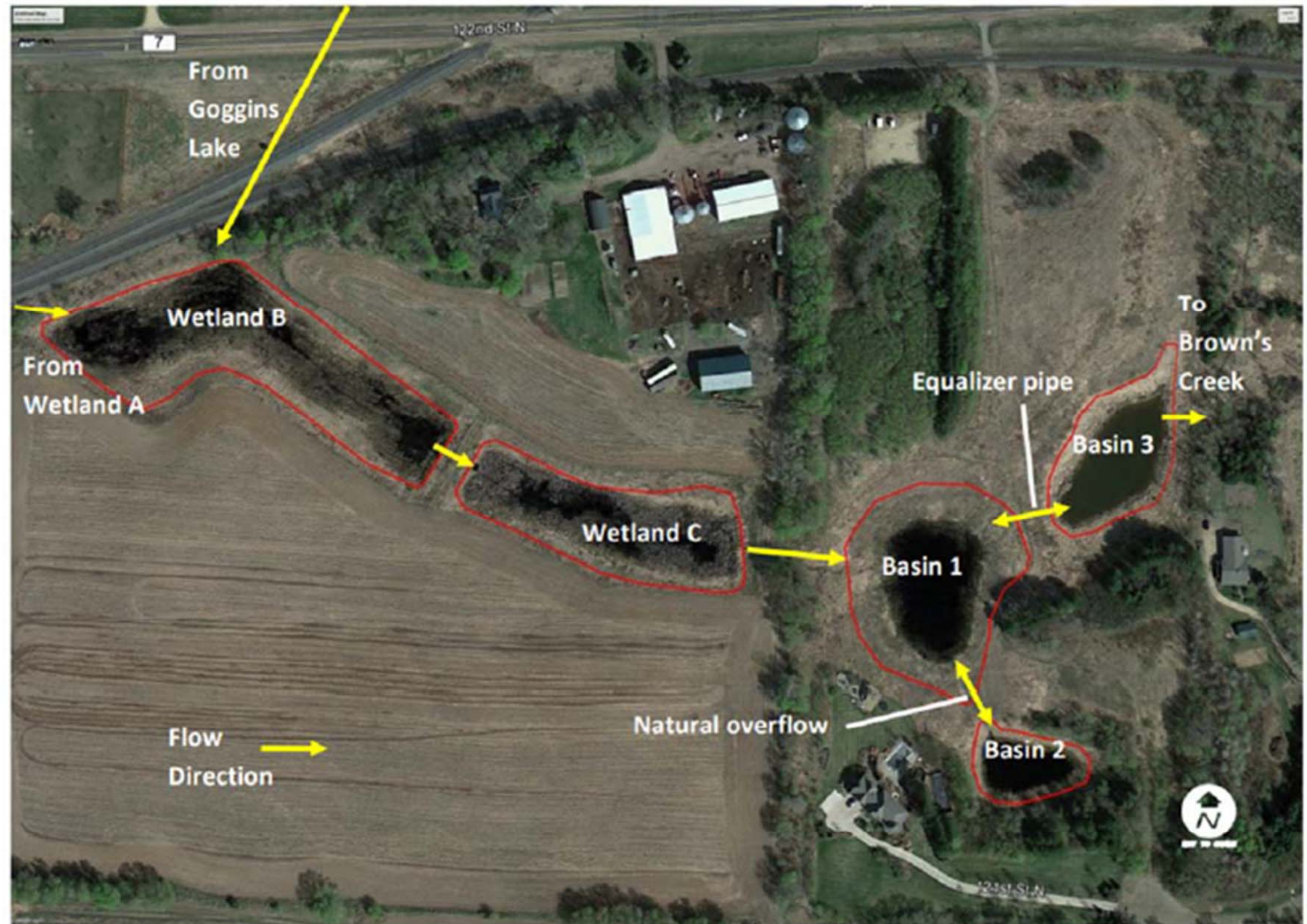
How is the project working now?

The THPP has been operating for a total of 22 years and 15 years since the retrofit was implemented.

Monitoring data (especially in the last few years) has shown a decrease in performance and has again highlighted the need for overhaul. The need for this periodic maintenance/repair is not uncommon in these types of facilities.

What's Next?

The BCWD Board will need to determine what investigation and/or maintenance items to begin in 2022 or plan for in 2023.



Exactly what was built?

A pipe was installed from an existing stormsewer in CR 7 along the Wisconsin Central Railroad to a point between the Withrow Cemetery and the DeWolf farm. The pipe goes under the railroad and outlets on the south side of the tracks. Water flows on the surface through a system of constructed wetlands and infiltration basins before reaching the headwaters of Brown's Creek in the Withrow Hills subdivision. Another wetland was constructed just west of the Withrow Cemetery to provide filtration of runoff coming from the Withrow Elementary School/Withrow Ballroom watershed area.

What did it cost? Approximately \$500,000

- Legislative Commission on Minnesota Resources (LCMR) \$250K
- BWSR Wetland Road Replacement Program \$155K
- Local Levy \$95K