

Port Wing Coastal Wetland Restoration



Site Overview: The Flag River is a Class I trout stream on the Bayfield peninsula that drains to Lake Superior. The coastal wetland at the mouth of the Flag River estuary is a 530-acre complex provide important habitat for numerous species of waterfowl and migratory birds. The coastal bog contains a number of species not typically found in this kind of bog, such as buckbean, mud sedge, white and sooty beak-rushes, livid sedge and speckled alder. The area supports a rich fishery including panfish and northern pike in the 14-foot-deep Bibon Lake, to the northwest of the site. At least 12 species of rare plants and animals have been documented here including Wisconsin's only known population of fly honeysuckle.

Project Overview: To treat wastewater for the Town of Port Wing (population 164) settling ponds were constructed in the estuary in 1968 on Town property. When the ponds were abandoned as part of a facility upgrade in 2011, the sewage sludge was removed from the ponds and pond dikes were breached, but wetland habitat was not restored. The WDNR began working with the Town in 2016 to restore the site. A multidisciplinary project team was convened to establish project goals and objectives that meet both local community and natural resource needs for the site, including restoring sedge meadow habitat and northern pike spawning habitat and providing public use opportunities for birdwatching, waterfowl hunting and boat access to Bibon Lake.

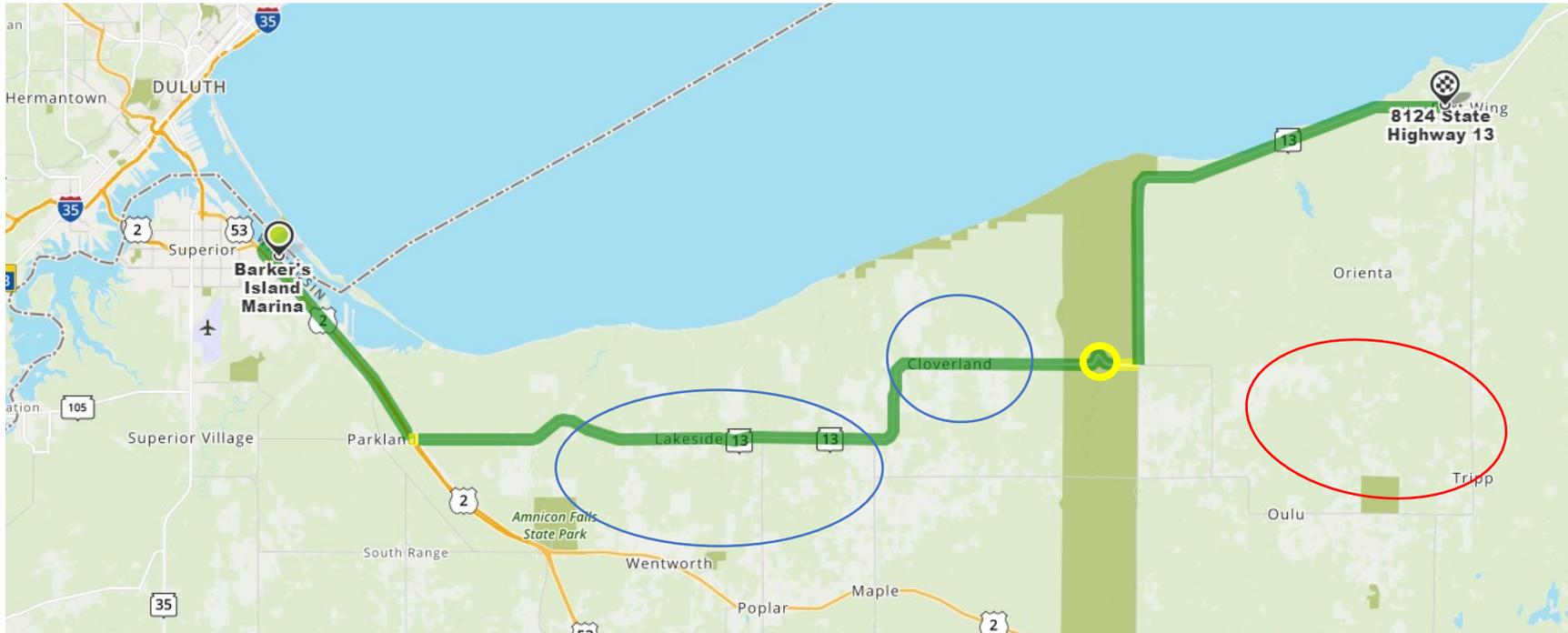
Restoration includes dewatering the site, re-grading the site to elevations that will support desired habitats, spreading weed-free organic wetland soils as a seed source, creation of an observation area, removal of the berms surrounding the ponds, improving the access road to the site, and adding parking areas. Installation began in the summer of 2019 and is currently underway. Achieving elevations with saturated clay soils has been a main challenge during restoration. Organic wetland soils will provide a seed source for wetland plants. Additional wetland plant restoration will be conducted as needed next summer.



Spreading organic wetland soils (darker material) after desired site grades were established

Project Partners:

- EPA: Funding through GLRI
- WDNR: Project oversight and project guidance with multi-program representation
- Town of Port Wing: Site landowner representing community interests for the restoration
- Northland College/Coastal Wetland Consortium: Project guidance and pre-post project monitoring
- Bayfield County: Assistance in deploying water level monitors to characterize site hydrology and capturing drone footage for possible project highlight video
- Stantec: Contracted engineer to develop design plans and oversee installation
- Ashland Sand and Gravel: Contractor hired to perform earthwork to restore site
- Port Wing School: Site water quality monitoring, capturing time elapsed footage of restoration with trail camera, drone footage and community outreach <https://portwingwi.com/port-wing-pond-restoration/>



Directions to Port Wing Restoration Site

Follow green line

Head east on Hwy 2.

Take the Wi-13 Exit towards Port Wing/Bayfield/APIS.

In ~35 miles, look for Carpo Drive, south of Hwy 13. Park along Carpo Drive and the site is the directly across the highway to the north.

Points of Interest On-route to Restoration Site

Sharptail Grouse (STG) Re-introduction

165 STG re-introduced to Moquah barrens from 2016-2018 in partnership with USFS, Red Cliff Band, Sharptail Grouse Society and corresponding MN agencies.

Some STG observed moving from release site to open lands (red circle). Additional open grassland habitat available for further expansion (blue circles).

Brule River LLT and P Load Monitoring Site (Yellow circle):

LLT site sampled quarterly since 2007

Started P load monitoring monthly in 2012

Stream gage is 9 miles upstream on Hwy 2 with sandy soils in upper watershed and clay soils in lower watershed. Discharge calibration study conducted in 2018-19 to evaluate Q relationships between gaged and WQ sampling site with contracted assistance from USGS and Northland College.