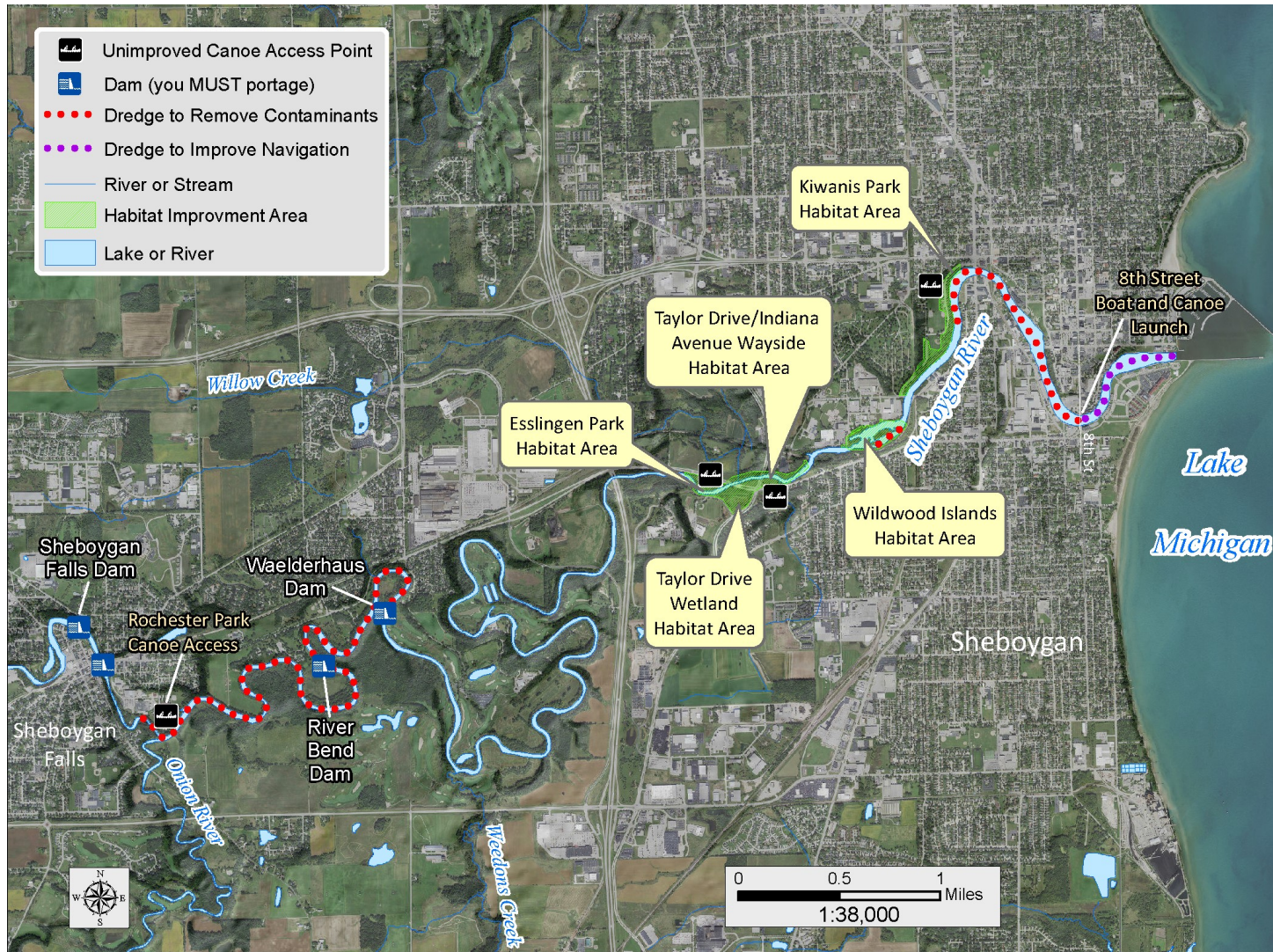


Sheboygan River Area of Concern

AOC goals are met when the benefits of the Sheboygan River to people and wildlife have been restored to an acceptable level. We will achieve this when public uses are no longer impaired by legacy contamination, and native plants and wildlife are sustainably protected. With toxic sediments removed and habitat restoration completed, the river is becoming an ever more valuable resource for recreation and the local economy.



Sheboygan River— part of the largest fresh surface water resource in the world— the Great Lakes ecosystem

Wisconsin Department of Natural Resources, Office of Great Waters



To learn more about Sheboygan River AOC projects and progress visit <http://dnr.wi.gov>, search "Sheboygan AOC." For more details, refer to the Area of Concern Remedial Action Plan Updates.

Brochure developed by the UW-Extension Regional Natural Resources Program and the Wisconsin Department of Natural Resources, Office of Great Waters. Graphic design by Jeffrey J. Strobel, UW-Extension Environmental Resources Center.



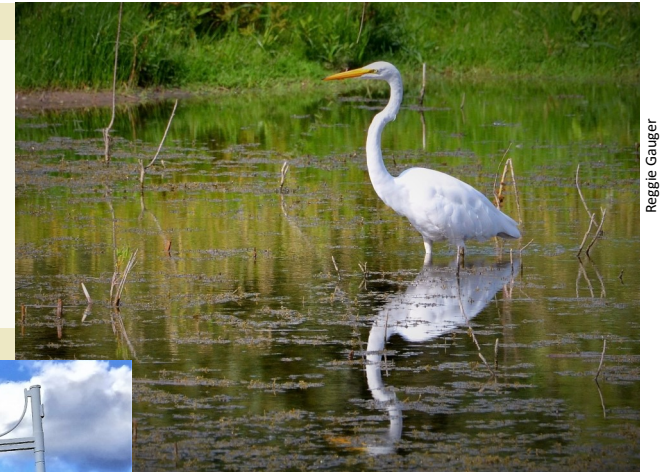
Sheboygan River Area of Concern

BENEFICIAL USE IMPAIRMENT RESTORATION REPORT

Summer 2020

The Sheboygan River

was designated an Area of Concern (AOC) in the 1980s because contaminated river sediment impaired public benefits such as fish consumption, healthy fisheries, shipping channels, and wildlife habitat.



Reggie Gauger



James E. Schultz



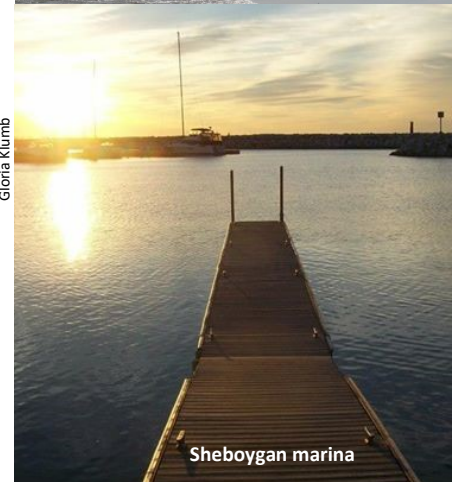
Reggie Gauger



Gwen Sauer

The Wisconsin Department of Natural Resources and citizen groups identified nine Beneficial Use Impairments (BUIs) to target here for improving the river and harbor.

[See the progress report inside](#) ➔



Gloria Klumb

Sheboygan marina



James E. Schultz

Fishing on South Pier

Sheboygan River AOC – Restoration Status Update

Summer 2020

The Sheboygan River is healing, thanks to concerted efforts to clean up and restore the river from 2010 to 2013.

After careful planning, all actions deemed necessary for achieving AOC goals were completed, including removing more than 400,000 cubic yards of contaminated sediments from the lower river and inner harbor and restoring fish and wildlife habitat.

With all necessary AOC actions complete, the focus is now on monitoring to verify that AOC goals are being met. It will take time for the natural system to recover following cleanup actions and habitat restoration. Several monitoring projects are underway to determine if goals are being met for the remaining impairments. Results are being evaluated by technical experts and will inform next steps.

This update shows the current status of the removal phases for nine impairments in the Sheboygan River AOC – *complete, underway, or not started* – and next steps. Dates in parentheses indicate the anticipated calendar year of project completion.



Sarah DeZwarte



Sarah DeZwarte



John Masterson

Above: Sediment removal by Army Corps of Engineers. Left & below: Camp Y-Koda volunteers monitor mussels and other aquatic life on the Sheboygan River. This data helps us measure how the environment, fish and wildlife are responding to the cleanup and restoration actions in the AOC.



Sarah DeZwarte

BUI Removal Phases:

- MA** **MONITOR & ASSESS:** define the problem, gather data and review literature, consult with experts.
- DP** **DEVELOP AOC PROJECTS:** engage stakeholders to develop the set of projects that are necessary for reaching AOC goals.
- IP** **IMPLEMENT PROJECTS:** take action to improve conditions within the AOC if monitoring data shows goals are not being met.
- VR** **VERIFY RESULTS:** after actions have been taken, monitor to determine if target has been met.
- RM** **FORMAL BUI REMOVAL:** targets have been met. BUI removal documentation is being prepared or reviewed, or has been submitted.

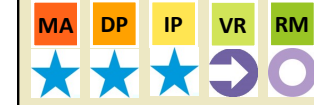
Status of Each Phase:



There are health concerns with eating fish and wildlife

NEXT STEPS:

- Continue assessments of waterfowl consumption advisories until 2021.
- Sampling for diving and dabbling ducks continues, as targets have not yet been met. Geese do not need to be tested in 2020 as their PCB levels are within targets.
- Assess fish consumption advisories again in 2020 and 2021.



Fish and wildlife populations are degraded

NEXT STEPS:

- Verification monitoring of aquatic insects, birds, bats, mussels, reptiles, and amphibians concluded that populations are stable or recovering (2020).
- Propose to remove this impairment as a joint package with the habitat impairment in 2021.



There are increased rates of fish tumors and deformities

NEXT STEPS:

- Repeat fish sampling to determine if fish tumor rate has decreased to levels comparable to unimpaired sites, with assistance from West Virginia University and U.S. Geological Survey (USGS) in 2021.



There is increased potential for bird and animal deformities and reproductive problems

NEXT STEPS:

- Results of the USGS tree swallow studies show elevated contaminants in tree swallow eggs, but below the lower limit at which hatchings are negatively affected.
- Continue mink population monitoring to determine if reproductive problems exist (2020).



Communities of sediment-dwelling organisms are degraded

NEXT STEPS:

- USGS study results indicate that benthic communities in the AOC are similar to non-AOC sites.
- Preliminary results from a USGS sediment toxicity study suggest that sediments are not toxic to aquatic life. Final report is pending.
- Propose to remove this impairment in 2020.



Dredging activities for commerce or navigation are restricted



This Beneficial Use Impairment's removal phases are successfully completed. A formal BUI removal application was accepted in August 2015.



Excessive nutrients cause undesirable algae



This Beneficial Use Impairment's removal phases are successfully completed. A formal BUI removal application was accepted in November 2015.



Communities of small organisms living in the water are degraded

NEXT STEPS:

- USGS study results indicate that phytoplankton communities in the AOC are similar to those in non-AOC sites (2019).
- Results of DNR water column toxicity studies indicate that water in the AOC is not toxic to aquatic life.
- Propose to remove this impairment in 2020.



Loss of fish and wildlife habitat

NEXT STEPS:

- Evaluation of the seven habitat restoration projects and invasive species control efforts concluded that all Fish and Wildlife Plan restoration goals have been met (2019).
- Propose to remove this impairment as a joint package with the fish and wildlife populations impairment in 2021.



Monitor and Assess (MA) | Develop AOC Projects (DP) | Implement Projects (IP) | Verify Results (VR) | Formal BUI Removal (RM)



BUI REMOVED

← RETURN TO PROCESS STEPS IF TARGETS NOT REACHED