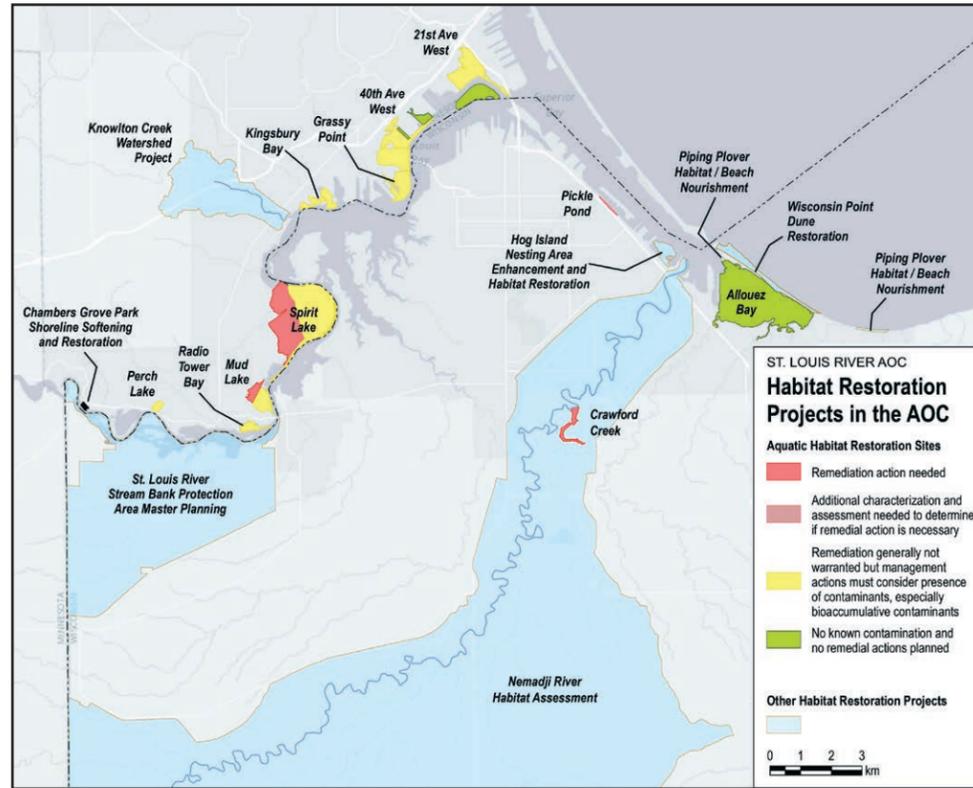


St. Louis River Area of Concern

Reaching our targets will lead us to our goal of delisting the AOC, which means the ecological benefits of the St. Louis River have been restored to an acceptable level. We will know we have achieved this when public uses are no longer impaired by legacy contamination and native plants and wildlife are sustainably protected. As toxic sediment is removed and habitat restoration continues, the river is becoming a more and more valuable resource for recreation and the local economy.



Steve O'Halloran



Above: Biologists monitor Little Pokegama Bay. Below: An engineer samples sediment at Crawford Creek. Petroleum-contaminated sediment is removed from Newton Creek.



Scott Inman



Scott Inman

St. Louis River Area of Concern

BENEFICIAL USE IMPAIRMENT RESTORATION REPORT

Summer 2015

The St. Louis River was designated an Area of Concern (AOC) in 1987. Improper management of municipal and industrial waste led to contaminated sediments, poor water quality, and impaired public benefits of the St. Louis River.



Wisconsin Point Lighthouse.



Phillip Schwarz

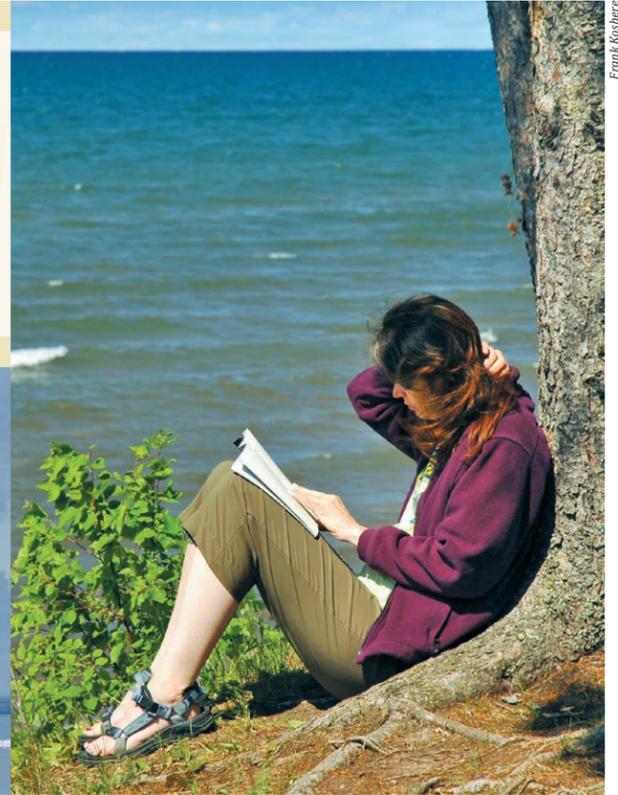
Agate hunting.



Jerry Bauer

The Wisconsin Department of Natural Resources, Minnesota Pollution Control Agency, Minnesota Department of Natural Resources, the Fond du Lac Band of Lake Superior Chippewa, and citizen groups identified nine Beneficial Use Impairments (BUIs) to target here for improving the river.

See progress report inside



Frank Koshere

St. Louis River – part of the largest fresh surface water resource in the world – the Great Lakes ecosystem

For more details about AOC progress and projects, refer to the Area of Concern Remedial Action Plan Updates, available at <http://dnr.wi.gov/topic/greatlakes/aoc.html>

Regional Natural Resources Program

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<http://dnr.wi.gov/topic/greatlakes/st.louis.html>



St. Louis River Estuary.



Federally endangered piping plover.

Summer Matteson

St. Louis River AOC – Restoration Status Update

Summer 2015

Tackling AOC problems, known as Beneficial Use Impairments in the Area of Concern program, requires several steps. We must understand the causes and define the extent of the impairments through monitoring, assessment and data analysis. We then determine the necessary actions to address the problems, and implement them.

Actions to address AOC problems can be large and complex, requiring the coordinated efforts of many partners over multiple years. Upon completing the necessary actions, we must verify through monitoring that we have achieved our goals for cleanup and restoration. Once the goals have been met and the problems have been addressed, the AOC designation can be removed.

This update shows the current status (Summer 2015) of the removal phases for nine impairments of the St. Louis River AOC – *complete, underway, or not started* – and the next steps. Dates in parenthesis indicate the anticipated project completion.

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:

not started underway complete

○ ↻ ★

There are health concerns with eating fish & wildlife

NEXT STEPS:

- Identify fish species which best indicate consumption concerns and compare AOC fish contamination levels to other regional waterbodies (through 2016).
- Identify and clean up contaminated sites containing mercury and polychlorinated biphenyls (PCBs) (through 2020).
- Continue to monitor contaminants in fish tissue following sediment cleanup.

MA DP IP VR RM

Fish & wildlife populations are degraded

NEXT STEPS:

- Implement Shafer Beach habitat restoration to support piping plover recovery (through 2018).
- Implement other AOC habitat projects that will benefit target populations (through 2018).
- Monitor semi-aquatic mammals (through 2016), birds (through 2016) and fish (yearly).
- Compare current and historical population data to measure recovery.

MA DP IP VR RM

There is increased potential for fish tumors & deformities

NEXT STEPS:

- Collect white suckers from the estuary and assess them for tumors and deformities (2015).
- Asses BUI status with a comparison of white sucker tumor data from the AOC and Lake Superior populations (by 2016).

MA DP IP VR RM

Communities of sediment-dwelling organisms are degraded

NEXT STEPS:

- Continue to clean up polluted sediment sites
- Restore 1,700 acres of aquatic habitat in the AOC.
- Monitor the recovery of benthic (sediment-dwelling) organisms as sites are restored.

MA DP IP VR RM

Dredging activities for commerce or navigation are restricted

NEXT STEPS:

- Continue cleanup of riverbed and harbor sites identified as pollution hotspots.
- Test additional areas for possible contamination and collaborate with partners to share results.
- Update and enhance the sediment quality database (through 2017).

MA DP IP VR RM

There are excessive sediments and nutrients

NEXT STEPS:

- Compare historical and recent water quality data to BUI targets (through 2016).
- Use a computer model to determine how much sediment is the result of human activities verses natural processes (through 2017).
- Assess the impact that sediment erosion is having on fish and water quality in the Nemadji River (through 2017).

MA DP IP VR RM

Water contact through beach use or other recreation is limited

NEXT STEPS:

- Sample impaired beaches to determine sources of harmful micro-organisms (through 2016).
- Continue to document permit compliance and improvements to wastewater treatment and infrastructure (through 2018).

MA DP IP VR RM

Appearance of river & waterfront needs improvement

BUI REMOVED ★★★★★

This Beneficial Use Impairment's removal phases are successfully completed and a formal BUI removal application has been accepted.

MA DP IP VR RM

Loss of fish & wildlife habitat

NEXT STEPS:

- Continue to clean up polluted sediment sites in the river.
- Restore 16 sites including aquatic, wetland, dune, tributary, and upland habitat.

MA DP IP VR RM



Above: Northern leopard frog. Right: Soil is analyzed during Clough Island wetland survey.



Kingfisher and great blue heron illustrations by Cindie Brunner

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