

Lower Menominee River Area of Concern

On the Path to Delisting

Fall 2019



The Lower Menominee River

was designated an Area of Concern in the 1980s due to habitat loss and contaminated sediments in the river that impaired public benefits such as healthy fish and wildlife populations, consumption of fish, and maintenance of shipping channels. Wisconsin Department of Natural Resources and citizen groups identified six environmental problems to target here for improving the river.



The Menominee River flowing into Lake Michigan



Scott Pearson

Launch of USS Milwaukee at Marinette Marine

Cleanup and restoration goals for all six of these impairments have been met, so now the Area of Concern designation can be removed, or in other words the Lower Menominee River can be "delisted."

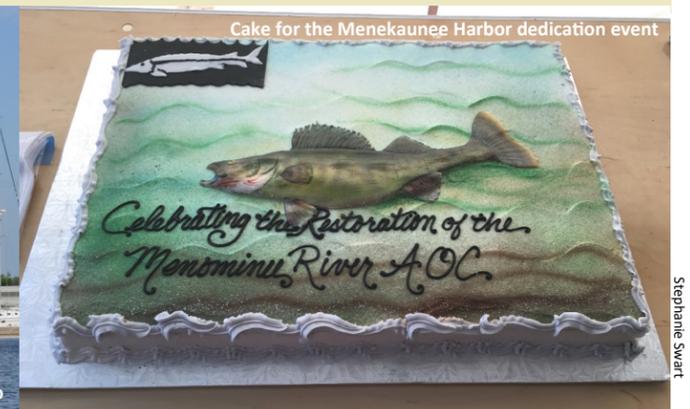


[Learn more inside.](#) →



WDNR

Interview for Menominee River AOC video



Cake for the Menekaunee Harbor dedication event

Stephanie Swart

Lower Menominee 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 Lower Menominee River Area of Concern projects and progress, visit <http://dnr.wi.gov>, search "Menominee AOC." For more details, refer to the AOC Remedial Action Plan Updates or videos highlighting key projects. Major funding for the [AOC Program](#) is provided by the [Great Lakes Restoration Initiative](#) through the U.S. Environmental Protection Agency.



Lower Menominee River AOC — Path to Delisting

Fall 2019

After decades of hard work, all the necessary actions to clean up and restore the Lower Menominee River Area of Concern have been completed, and achievement of restoration goals has been documented.

Six problems, called Beneficial Use Impairments in the AOC Program, that were listed for the Lower Menominee River have also been formally removed.

So now, the Wisconsin Department of Natural Resources is proposing to “delist” or remove the Lower Menominee River from the international list of 43 Great Lakes Areas of Concern.

The proposal has been submitted to the U.S. Environmental Protection Agency as a delisting report. Delisting is a lengthy process requiring time for the many agencies and stakeholders (at federal, tribal, state, and local levels) involved in aspects of this work to review and comment on the delisting report.

We anticipate completing all delisting review steps in 2020.



Fish and wildlife habitat restored at Menekaunee Harbor after area was dredged to remove polluted sediments. Photo: Cheryl Bougie, DNR.

43 Great Lakes Areas of Concern Identified:

- 26 located entirely in the United States
- 12 located wholly within Canada
- 5 are binational waterways shared by both nations
- 4 United States and 3 Canadian AOCs removed from the list so far.

Beneficial Use Impairments

Beneficial uses are ways that a water body can improve the quality of life for people or for fish and wildlife. If a beneficial use is suppressed or unavailable due to environmental problems, then that use is considered impaired. Each problem, or impairment, has its own restoration goal.

The six impairments that were listed for the Lower Menominee River when it was designated an AOC in 1987 are now officially removed:

- ✓ Restrictions on recreational contact with water,
- ✓ Restrictions on dredging,
- ✓ Restrictions on eating fish and wildlife,
- ✓ Degraded bottom-dwelling organisms,
- ✓ Degraded fish and wildlife populations,
- ✓ Loss of fish and wildlife habitat.



In 1987 the governments of the United States and Canada identified specific portions of Great Lakes tributaries and harbors with especially severe pollution due to historical industrial, urban and agricultural uses— called “Areas of Concern.” The Lower Menominee River is one of these AOCs. The AOC Program gives special attention to cleaning up specific “legacy pollutants” or mistakes from the past. Map: Environment and Climate Change Canada, Great Lakes National Program Office.

Background

In 1987, the lower three miles of the Menominee River, along with Green Island and the Green Bay shoreline three miles north and south of the river mouth, were designated an AOC, primarily due to toxic chemical pollution. Polycyclic aromatic hydrocarbons (PAHs), arsenic, and paint sludge associated with industrial activities were present in river and bay sediments at elevated levels within the AOC.

An extensive wetland complex near the mouth of the river was destroyed by logging in the 1800s. Land near the mouth was then filled for industrial uses, and sea walls of steel, concrete or timber were placed for cargo vessel docking facilities. Essential fish and wildlife habitat was lost due to these development activities.

Several Lake Michigan fish species, including lake sturgeon, had severely limited access to their historic spawning and juvenile habitats in upper reaches of the Menominee River because five hydro-electric dams prevented them from swimming upstream. Fish populations were also harmed by contaminated sediments.

Elevated bacteria levels in the river portion of the AOC were associated with wet weather events (combined sewer overflows and sanitary sewer overflows), leading to recreational contact restrictions.

Pollution Removal and Restoration

To address the impairments, polluted and excess sediments were removed from the river and harbor by dredging and disposing of them in approved locations. Cleanup efforts took place at the Lloyd Flanders paint sludge site from 1993 through 1998, the Ansul/Tyco arsenic site from 2012 through 2015 (river portion), in-water sources at the Wisconsin Public Service Corp. coal tar site from 2012 through 2015, and the Menekaunee Harbor site from 2014 through 2015 (see map on next page).

Sources of arsenic, PAHs, and paint sludge within the AOC boundaries have now been controlled through these cleanup projects. The projects were monitored according to their approved plans and met their cleanup goals, showing that sediments in the AOC are no longer a source of the listed impairments. Bacteria from wet weather events was addressed through improvements to municipal wastewater treatment systems. In addition to pollution cleanup, many habitat restoration projects were implemented as well:

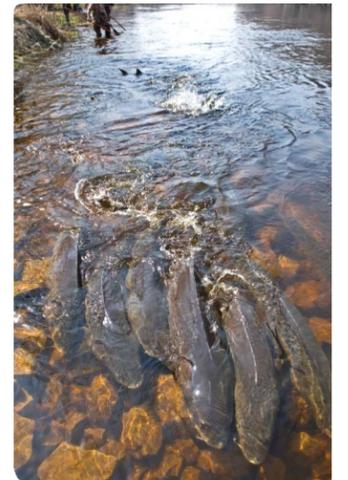
- ✓ Restored fish passage over the Park Mill and Menominee Dams, and improved overall river connectivity for fish such as sturgeon to thrive.
- ✓ Installed habitat structures for fish, birds, bats and other wildlife.
- ✓ Planted native wetland vegetation and controlled invasive species.
- ✓ Restored wild rice, which is culturally and environmentally important to the area, in the harbor.

Life After the AOC

Partnerships are essential for achieving AOC restoration goals. It’s a team effort by many state and federal programs, municipal governments, non-profit organizations, technical consultants, and committed citizens to restore beneficial uses to these areas. These same partners can continue working together after delisting to achieve further improvements and to address other issues beyond the scope of the AOC Program.



Dredging in Menekaunee Harbor. Photo: DNR.



Sturgeon spawning in the Menominee River. Providing passage around the dams returns access to their historic spawning and rearing habitats, helping to restore sturgeon populations. Photo: Bob Rashid.



Above: Sturgeon like this one are carefully examined after they pass through a fish elevator installed at the Menominee Dam to help them get upstream to spawn (photo: Rob Elliot, USFWS). Below: Dr. Keith West and UW-Marquette students help monitor and maintain restoration sites (photo: DNR).

