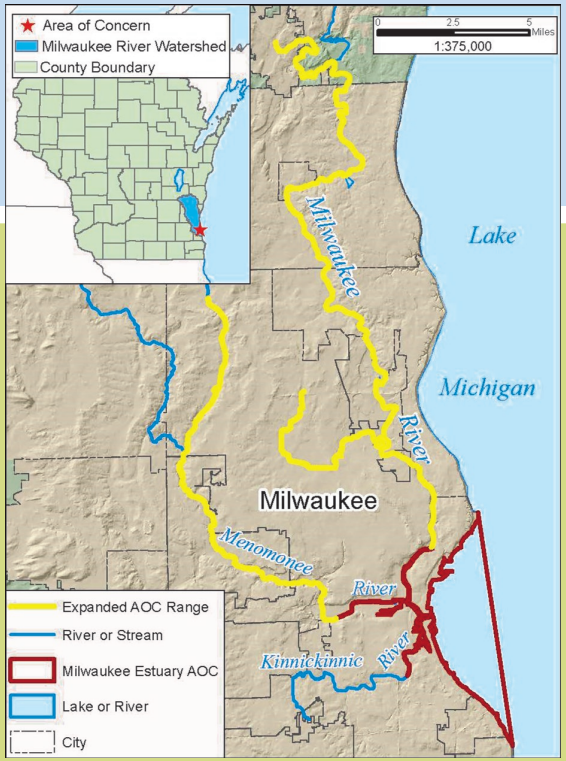
The Milwaukee Estuary
Great Lakes Area of Concern



The Milwaukee Estuary AOC includes portions of three tributaries to Lake Michigan (Milwaukee, Menomonee, and Kinnickinnic Rivers) and a segment of Lincoln Creek; it also includes the nearshore waters of Lake Michigan, bounded by a line extending north from Sheridan Park to the City of Milwaukee's Linnwood water intake.

Great Lakes rivers and harbors that have been most severely affected by pollution and habitat loss are considered "Areas of Concern," or AOCs. Designated in 1987 as part of an international agreement between the U.S. and Canada known as the Great Lakes Water Quality Agreement, these sites need special attention. This fact sheet highlights some of the progress that partners in Wisconsin have made toward removing the Milwaukee Estuary from the list of AOCs.

The rich natural resources of the Milwaukee Estuary sustained native cultures and later drew European immigrants to settle its shores. As the area grew into a center for shipping, commerce and industry, the rivers were dammed, dredged, straightened, widened, and often lined with concrete. Over time, they were heavily polluted by industrial, agricultural, and urban sources, leading to their designation as an AOC.

Downtown Milwaukee waterfront (WDNR)

The Wisconsin DNR and partners are working to clean up sediments, prevent excessive algal growth, control storm water pollution, improve beach water quality, enhance fish and wildlife populations, and restore habitat.

Menomonee River (UW-Extension)

AOC Accomplishments

Approximately 300,000 cubic yards of sediments have been removed so far.

The North Avenue, Falk, and Lime Kiln Dams dams have been removed and the Mequon-Thiensville Fishway fish passage project has been completed. Concrete-lined river channels have been restored in portions of the Kinnickinnic River, Menomonee River, and Underwood Creek, and citizen monitoring of fish impediments in AOC tributaries is being conducted.

A collaborative citizens' monitoring program is being implemented to assess the Degradation of Aesthetics beneficial use impairment (BUI).

UW-Milwaukee researchers are collaborating with partners to use innovative bacteria source identification monitoring to determine where sewage is finding its way into AOC waters.

Fish and wildlife populations and fish tumor assessments are underway.

Highlights from the Milwaukee Estuary Area of Concern

Lincoln Park and the Milwaukee River Channel Sediment Remediation

Studies of the sediment deposits and transport within the Milwaukee River system from 1993 to 2003 identified significant deposits of PCBs within the Estabrook Impoundment. Based on the studies, Wisconsin DNR determined three priority areas for addressing the sediments within the impoundment. The Blatz Pavilion cleanup was completed in 2008. Wisconsin DNR and Milwaukee County, in collaboration with U.S. EPA´s Great Lakes National Program Office Legacy Act Program, have completed one phase of remediation work in Milwaukee's Lincoln Park, and are using the Legacy Act Program to implement the second remediation phase this year. BUIs addressed include Restrictions on Dredging, Restrictions on Fish and Wildlife Consumption, Degradation of Benthos, Degraded Fish and Wildlife Populations, and Loss of Fish and Wildlife Habitat.

Menomonee River Concrete Removal

Removal of 3,800 feet of concrete from the bed of the Menomonee River between I-94 and the Soo Line Railroad Bridge is underway. The concrete channel was constructed in 1965 as part of a flood control effort designed to funnel storm-swollen river flows quickly downstream. The concrete lining creates a steep chute with fast-flowing water even in dry weather that is impassable for most fish. Construction of a meandering channel with riffles and pools allowing for native fish passage will complete the last link needed to open up migration to Menomonee Falls, 17 miles upstream. Milwaukee Metropolitan Sewerage District is working on the first phase of the project with a total estimated cost of $5.4 million for 1,100 feet of stream rehabilitation. The US Army Corps of Engineers is working on the second phase with a total estimated cost of $4.5 million for 2,700 feet of stream rehabilitation. The Great Lake Restoration Initiative provided $5.9 million in funding for the project.

Fish and Wildlife Population Assessments

A three-year comprehensive assessment will provide much needed information to guide restoration of fish and wildlife populations. United States Geological Survey (USGS) crews are carrying out the fish assessment work. Milwaukee County Parks and Natural Areas staff and UW-Milwaukee field station staff are performing the wildlife assessments. The data collected will be used to determine and guide projects that may be necessary for restoring habitats and populations. The projects were funded by a grant to DNR from the Great Lakes Restoration Initiative. The grant also provided funding for waterfowl consumption advisory assessment, plankton and benthos assessment and bacterial contamination tracking.

WISCONSIN DEPT. OF NATURAL RESOURCES

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