

Cleanup possible through GLRI

The Great Lakes Restoration Initiative, or GLRI, is the largest investment in the Great Lakes in two decades. Sixteen federal departments or agencies are working together on five priorities:

- Cleaning up <u>Great Lakes Areas</u> of Concern.
- Preventing and controlling invasive species.
- Reducing nutrient runoff that contributes to harmful/nuisance algal blooms.
- Restoring habitat to protect native species.
- Laying the foundations for future restoration actions with education and outreach.

The GLRI's **Great Lakes Legacy Act**, or GLLA, – under which the estuary work is being done – provides up to 65 percent of the cost of sediment cleanup with a nonfederal entity contributing the balance. Legacy Act partnerships have cleaned up 24 sites in six Great Lake states and remediated 4.3 million cubic yards of contaminated sediment.

Completed cleanups have transformed former toxic hot spots into attractive locations and valuable waterfront assets.

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Project Agreement Will Advance Estuary Cleanup

Milwaukee Estuary Area of Concern

Milwaukee, Wisconsin

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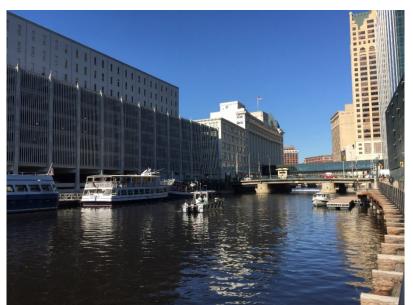
A \$29 million Great Lakes Legacy Act (GLLA) project agreement signed in January between the U.S. Environmental Protection Agency and several partners will lead to a focused feasibility study, pre-design investigation, and remedial design work in advance of a potential major cleanup of contaminated sediment in the Milwaukee Estuary Area of Concern.

EPA is collaborating with Wisconsin Department of Natural Resources (DNR), the City of Milwaukee, Milwaukee County, Milwaukee Metropolitan Sewerage District (MMSD), and We Energies to perform the pre-cleanup tasks. This project under the Great Lakes Legacy Act will address approximately 1 million to 2 million cubic yards of sediment contaminated with polychlorinated biphenyls (PCBs), metals, and polyaromatic hydrocarbons (PAHs).

Great Lakes AOCs

The Milwaukee Estuary is one of the 31 U.S.-based Areas of Concern, or AOCs, across the Great Lakes created under the 1987 Great Lakes Water Quality Agreement. The estuary is a transition zone between the inland rivers and streams and Lake Michigan. The Milwaukee Estuary covers the lower river miles of the Milwaukee, Menomonee, Little Menomonee, Kinnickinnic Rivers, the inner and outer Milwaukee Harbor, several streams and creeks, and nearshore waters of Lake Michigan. Historic activities throughout this predominantly industrial and urbanized watershed have resulted in pollution accumulation in the sediments in the AOC.

The estuary was added to the list of AOCs due to the presence of certain types of environmental degradation known as beneficial use impairments or BUIs. The Milwaukee Estuary contains 11 BUIs including restrictions on fish and wildlife consumption, degradation of fish and wildlife populations, and loss of fish and wildlife habitat to name a few.



The
Milwaukee
River, part of
the
Milwaukee
Estuary, flows
through
downtown
Milwaukee.
Anchored in
the river is
EPA's
research
vessel
Mudpuppy II.



The Hoan Bridge in the Inner Harbor of the Milwaukee Estuary.

Project cost

The total cost of the Milwaukee Estuary pre-cleanup project is estimated at \$29 million, of which 65% (\$19 million) will be paid for using federal GLLA funding. The non-federal cost share of 35% (\$10 million) will come from: 1) a state bond fund for sediment remediation in Wisconsin (\$500,000); and 2) in-kind contributions (\$9.5 million from the non-federal sponsors).

The in-kind contributions will consist of source control work to remove PCB contaminated sediment from the sewer line along the Milwaukee River, remedial design of contaminated sediment in two areas of the AOC, the design of a proposed dredge material management facility (DMMF) to be located adjacent to the existing confined disposal facility, as well as utility and shoreline structure reviews.

Project milestones

The project will be completed in several phases:

- 1) Source control work along the Milwaukee River will begin in January 2020 by MMSD.
- 2) Design of the proposed DMMF will continue with additional public outreach meetings planned for 2020.

- 3) A focused feasibility study of the Milwaukee River from Estabrook Park to the confluence with the Menomonee River will begin in spring of 2020.
- 4) Ongoing work to further characterize the extent and quantity of contaminated sediment in the AOC, performed as part of a separate funding measure, will continue in 2020. This additional data will inform the ongoing feasibility study proceeding on the other project areas.
- 5) Feasibility study work will be followed by predesign investigation and remedial design projects.

Milwaukee Estuary cleanup history

This latest project is part of a larger effort to restore the Milwaukee Estuary Area of Concern through the Great Lakes Restoration Initiative.

Other Great Lakes Legacy Act sediment remediation projects in the Milwaukee Estuary AOC include a \$22.9 million cleanup in 2009 along the Kinnickinnic River. That cleanup removed 167,000 cubic yards of sediment contaminated with PCBs and PAHs.

Another \$42.6 million project removed 172,000 cubic yards of sediment contaminated with PCBs and PAHs between 2012 and 2015 from the Lincoln Park area along the Milwaukee River.



Manual sediment core sampling on the Milwaukee River.