

Presque Isle Bay Removed from Great Lakes Area of Concern List

Erie, Pennsylvania

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Second U.S. AOC Delisting

Presque Isle Bay has been removed from the list of the most polluted areas in the Great Lakes basin, making it the second such area in the U.S. to be delisted. The U.S. and Canada identified 43 of these heavily contaminated areas, known as Areas of Concern (AOCs), under the Great Lakes Water Quality Agreement of 1987. Presque Isle Bay was designated as an AOC in 1991. Typically, AOCs are degraded rivers and harbors with water quality problems affecting human health and wildlife. They are also roadblocks to developing waterfronts for business or recreation. Cleaning up AOCs is an EPA priority under the Great Lakes Restoration Initiative.

Great Lakes Restoration Initiative

The GLRI, initially proposed in 2009, is the largest investment in the Great Lakes in more than two decades. EPA is one of 16 federal agencies implementing the GLRI Action Plan to protect and restore the basin. For more information, visit www.glri.us.

Great Lakes Water Quality Agreement

The GLWQA addresses critical environmental health issues in the Great Lakes region and is a model of binational cooperation to protect water quality. The Agreement was initially signed in 1972 and last updated in 2012. The updated Agreement facilitates United States and Canadian action on threats to Great Lakes water quality from many sources, such as toxic chemicals, nutrients, and climate change. For more information, visit www.epa.gov/grtlakes/glwqa/.

Contact EPA

For more information on Presque Isle, visit www.epa.gov/glnpo/aoc/presque. For all other inquiries contact Peter Cassell, 312-886-6234, cassell.peter@epa.gov.



Aerial view of the Presque Isle Bay Area of Concern.

The Presque Isle Bay Area of Concern has been taken off the list of the most polluted places around the Great Lakes. The decision was made by the U.S. Department of State in consultation with the U.S. Environmental Protection Agency, the International Joint Commission and the Commonwealth of Pennsylvania after reviewing the success of various cleanup activities in the bay.

Background

In January 1991, Presque Isle Bay was designated as the 43rd AOC by the State Department in response to concerns raised by the local community. Waste disposal practices before state and federal regulatory programs were established had resulted in the discharge of industrial and domestic wastewater into the bay or to its streams and tributaries. This contaminated the bay with pollutants including excessive nutrients, organic compounds and heavy metals.

Through the Remedial Action Plan process, the Pennsylvania Department of Environmental Protection and the Presque Isle Bay Public Advisory Committee identified two major impairments in the bay: fish tumors or other deformities, and restrictions on dredging. An evaluation identified two main pollutants in the sediment – heavy metals such as nickel, lead and cadmium, and polycyclic aromatic hydrocarbons, or PAHs. Fish tumors and other deformities were believed to be related to the sediment contamination.

The city of Erie made changes to its wastewater collection, conveyance and treatment system that reduced sewer overflow and stormwater runoff into the bay. Over time, the city's waterfront became more commercial and less industrial. In 2002, improvements in the health of the local fish population and natural sediment led to the bay being designated as an AOC in the recovery stage.

Improved sediment quality

Sediment in the bay now contains relatively low levels of PAHs and fewer heavy metals. Generally, the concentrations of contaminants were found to be uniform throughout the bay and no specific hot spots were identified. After a comprehensive review, EPA and Pennsylvania removed the dredging restrictions impairment in 2007.



Sediment samples like the one pictured above provided the information needed for EPA to remove restrictions on dredging in Presque Isle Bay.

Fewer fish tumors

Over the last 20 years, federal, state and local agencies examined the fish population of Presque Isle Bay, in particular the native brown bullhead catfish (*Ameiurus nebulosus*). The bay's bullheads were checked for liver tumors and external growths and deformities. Subsamples of these fish were autopsied and tissue was examined for the presence of tumors.

While the rate of external growths remains a problem throughout Lake Erie, the rates of fish liver tumors in the bay declined to the point where they are the same as the least impacted reference site in the Lake. For this reason, the fish tumor impairment was removed.



Scientists will continue to monitor the fish and water quality after Presque Isle is removed from the AOC list.

What happens next?

Removing Presque Isle Bay from the AOC list means that the bay's environmental conditions are now consistent with other areas of Lake Erie.

The Pennsylvania Department of Environmental Protection will continue to monitor environmental conditions in the bay with EPA's support. People who fish in Presque Isle Bay may still see external tumors on some fish. Agencies can take further action using existing legal authorities if warranted.