

**BRIEFING PAPER
REMOVAL OF THE
RESTRICTIONS ON DRINKING WATER CONSUMPTION OR TASTE AND ODOR
PROBLEMS BENEFICIAL USE IMPAIRMENT
IN UNITED STATES WATERS
OF THE DETROIT RIVER AREA OF CONCERN**

Request

Based upon Remedial Action Plan (RAP) documentation review, consultation with agency staff, and Technical Committee review, the Michigan Department of Natural Resources and Environment (MDNRE), Area of Concern (AOC) Program, requests concurrence with its recommendation to remove the Restrictions on Drinking Water Consumption or Taste and Odor Problems Beneficial Use Impairment (BUI) in United States (U.S.) waters of the Detroit River AOC. This request is being made in accordance with the process and criteria outlined in the *Guidance for Delisting Michigan's Great Lakes Areas of Concern* ([Guidance](#)), (Michigan Department of Environmental Quality [MDEQ], 2008).

Background

The Detroit River is a designated binational Great Lakes AOC. A Great Lakes AOC is a severely degraded geographic area within the Great Lakes Basin. They are defined by the U.S.-Canada [Great Lakes Water Quality Agreement](#) (Annex 2 of the 1987 Protocol) as "geographic areas that fail to meet the general or specific objectives of the agreement where such failure has caused or is likely to cause impairment of beneficial use of the area's ability to support aquatic life." In order for an AOC to qualify for removal of the AOC designation, all impaired beneficial uses within it must be restored and removed.

The physical boundary of the Detroit River AOC is defined as the entire river from Windmill Point at Lake St. Clair to the Detroit River Lighthouse at Lake Erie. To view the Detroit River AOC boundary map, click [here](#).

The [1996 Detroit River Remedial Action Plan Report](#) (Michigan Department of Environmental Quality, 1996) identified 11 BUIs affecting the Detroit River AOC. These BUIs are listed here:

- Restrictions on Fish and Wildlife Consumption
- Tainting of Fish and Wildlife Flavor
- Fish Tumors or Other Deformities
- Bird or Animal Deformities or Reproductive Problems
- Degradation of Benthos
- Restrictions on Dredging Activities
- Restrictions on Drinking Water Consumption or Taste and Odor Problems
- Beach Closings
- Degradation of Aesthetics
- Degradation of Fish and Wildlife Populations
- Loss of Fish and Wildlife Habitat

The Detroit River Remedial Action Plan Report identifies the status of the Restrictions on Drinking Water Consumption or Taste and Odor Problems BUI as impaired in U.S. waters of the Detroit River AOC. In Canadian waters of the AOC, the BUI is identified as unimpaired according to a 2009 draft report by Detroit River Canadian Cleanup entitled *Detroit River Canadian Remedial Action Plan Stage 2*; that report was developed with funding support from the Ontario Ministry of the Environment (OMOE) and Environment Canada (EC).

On November 19, 2008, the Detroit River Public Advisory Council (PAC) voted to accept the criteria for non-habitat BUI assessment and removal presented in the Guidance. The Guidance states that the Restrictions on Drinking Water Consumption or Taste and Odor Problems BUI will be considered restored when monitoring data for 2 years indicates that public water supplies:

- meet the current and most stringent human health standards, objectives, or guidelines (at the point of distribution into the water system) for levels of disease-causing organisms, hazardous or toxic chemicals, or radioactive substances; and
- treatment needed to make raw water potable and palatable does not exceed standard methods in those supplies. In the event a public drinking water intake must be closed due to contamination of surface water, standard treatment methods are considered to have been exceeded.

Summary of Remedial Actions or Source Controls Implemented that Address the BUI

Since the Restrictions on Drinking Water Consumption or Taste and Odor Problems BUI was initially determined for the Detroit River AOC, key point source and nonpoint source control measures have been implemented within the AOC. These have most certainly played a beneficial role with respect to the status of the Restrictions on Drinking Water Consumption or Taste and Odor Problems BUI, whether or not these measures were specifically intended to benefit the status of that BUI or bring about its restoration. These measures include Combined Sewer Overflow control improvements and National Pollutant Discharge Elimination System improvements.

Assessment of Restoration

In September 2010, MDNRE, Environmental Resource Management Division (ERMD), Drinking Water staff reviewed Monthly Operation Reports and the required chemical monitoring data received during 2008, 2009, and what was then available from 2010 from all water treatment plants that use the Detroit River as their source (i.e., Water Works Park, Springwells, Northeast, Southwest and Wyandotte). This review showed that all plants have met all federal and state drinking water standards for finished water quality. This review also showed that all plants have employed conventional treatment (i.e., coagulation, sedimentation, filtration and disinfection) to treat source water; treatment has not exceeded standard methods, nor have there been any incidences of intakes closing, whether voluntarily or involuntarily. Based on this evaluation, MDNRE AOC Program staff have determined that drinking water from the Detroit River AOC meets Michigan's criteria for removal of the Restrictions on Drinking Water Consumption or Taste and Odor Problems BUI in U.S. waters of the AOC. In January 2010, the Friends of Detroit River conducted an independent review of data obtained to assess this BUI; as a consequence of this independent review, both the Friends of the Detroit River and the Detroit River PAC support removal of this BUI.

The MDNRE AOC Program convened a Technical Committee to further review the status of the Restrictions on Drinking Water Consumption or Taste and Odor Problems BUI. The Technical Committee comprised Laura Verona, MDNRE, Environmental Resource Management Division; Charles Bristol, Detroit River Public Advisory Council; Rose Ellison, USEPA, Great Lakes National Program Office; Ted Briggs, OMOE; Luca Cargnelli, EC; and Christine Aiello, MDNRE,

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Office of the Great Lakes. This Technical Committee concluded that drinking water from the Detroit River AOC meets Michigan's criteria for removal of the Restrictions on Drinking Water Consumption or Taste and Odor Problems BUI in U.S. waters of the AOC.

Recommendation

The MDNRE, AOC Program, requests concurrence with its recommendation to remove the Restrictions on Drinking Water Consumption or Taste and Odor Problems BUI in U.S. waters of the Detroit River AOC.

Deadline for Public Comment

Written comments are being accepted on this proposed removal of the Beneficial Use Impairment, *Restrictions on Drinking Water Consumption or Taste and Odor Problems*, in United States waters of the Detroit River Area of Concern. Submit written comments to Christine Aiello, Michigan Department of Natural Resources and Environment, Office of the Great Lakes, PO Box 30273, Lansing, Michigan, 48909-7773, by midnight on March 2, 2011. If requested in writing by March 2, 2011, a public hearing may be scheduled. All comments received by March 2, 2011 will be considered by the decision-maker prior to final action. The decision-maker is Patricia Birkholz, Director, Office of the Great Lakes. Information Contact: **Christine Aiello**, Office of the Great Lakes, 517-241-7504, aielloc@michigan.gov.

Prepared by: Christine Aiello, Senior Environmental Quality Analyst
Office of the Great Lakes
Michigan Department of Natural Resources and Environment
January 18, 2011

References

Detroit River Canadian Cleanup. 2009. Detroit River Canadian Remedial Action Plan Stage 2 Draft.

International Joint Commission. 1988. Revised Great Lakes Water Quality Agreement of 1978, as amended by Protocol signed November 18, 1987. Consolidated by the International Joint Commission, United States and Canada.

MDEQ. 2008. Guidance for Delisting Michigan's Great Lakes Areas of Concern. Report No. MI/DEQ/WB-06/001.

MDEQ. 1996. Detroit River Remedial Action Plan Report.