



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

BUI Restoration Criteria Evolution

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Timeline

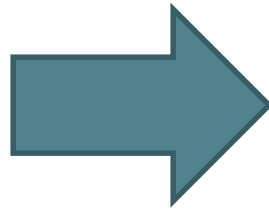
- **~1987:** AOC program established
- **2006:** Michigan finalizes restoration criteria for 12 BUIs
- **2006:** First BUI removed in MI
- **2008:** Restoration criteria revised
- **2014:** Deer Lake & White Lake AOCs delisted!
- **2015:** Restoration criteria revised
- **2018:** Restoration criteria revised (delisting process)
- **2019:** 50th BUI removed in the state, 61 to go!

Progress

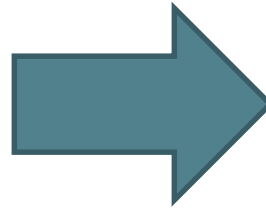


IDEALISM

Dance your cares away.



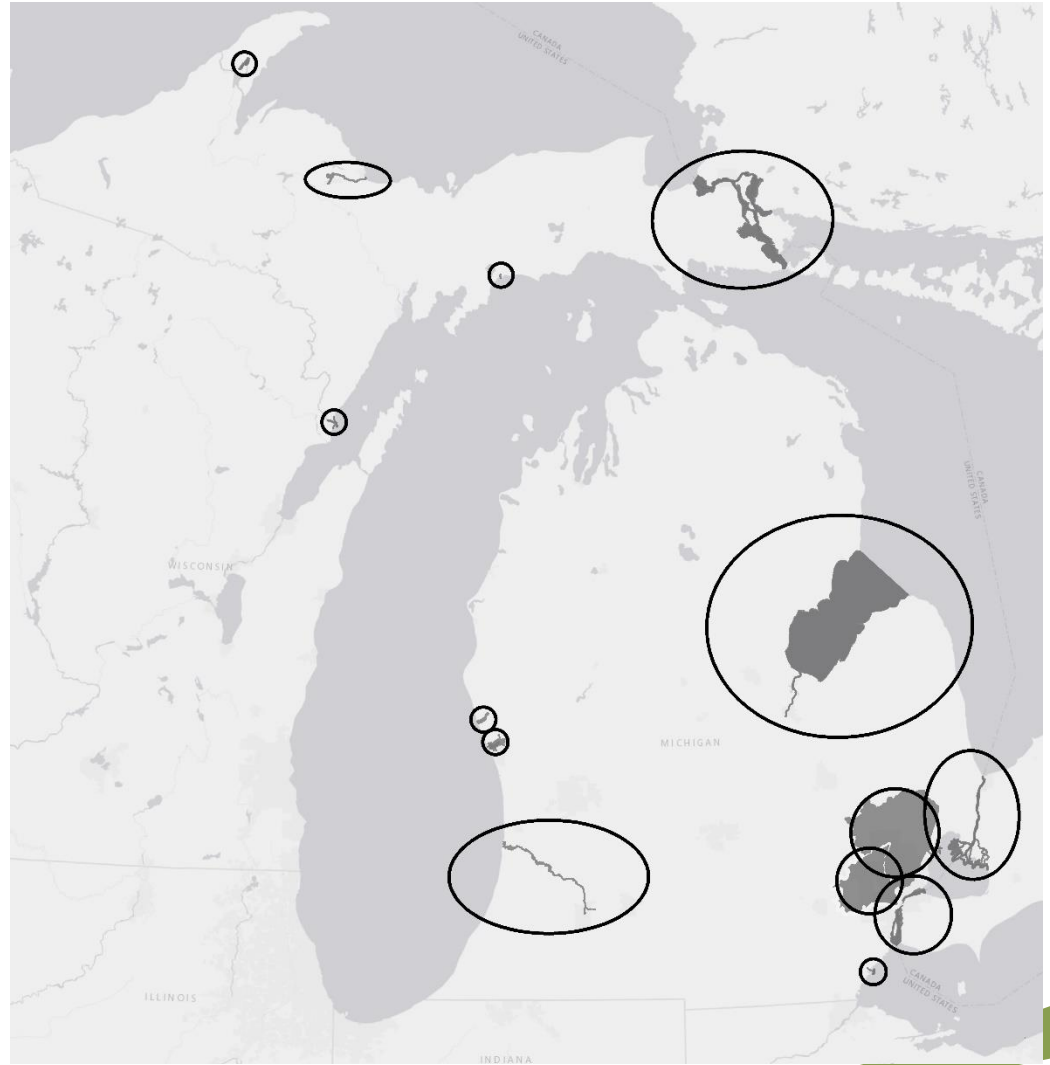
EXPERIENCE



REALISM

THE FACT THAT THERE'S A LIGHT AT THE END OF THE TUNNEL DOESN'T
MEAN THAT IT'S BENIGN.

Guidance for Delisting Michigan's Great Lakes Areas of Concern



Local Criteria

- Local PACs may develop their own criteria for any BUI, as long as it's at least as protective as the statewide criteria.
- Concurrence with local criteria does not commit the State to monitoring or other efforts that would go beyond what's required to confirm achievement of statewide criteria.



Restrictions
on
Dredging
Activities

Restrictions on Dredging Activities

2008 Criteria

This BUI will be considered restored when:

- There have been **no restrictions** on routine commercial or recreational navigational channel dredging by the U.S. Army Corps of Engineers (COE), based on the most recent dredging cycle, **such that special handling or use of a confined disposal facility is required** for dredge spoils **due to chemical contamination.**

OR, in cases where dredging restrictions exist:

- **A comparison of sediment contaminant data** from the commercial or recreational navigation channel (at the time of proposed dredging) in the AOC **indicates that contaminant levels are not statistically different** from other comparable, non-AOC commercial or recreational navigation channels.

Restrictions on Dredging Activities

2015 Criteria

This BUI will be considered restored when:

During the most recent routine dredging in the U.S. Army Corps of Engineers (COE) designated navigational channel, use of a confined disposal facility or TSCA-level landfill for dredge spoils was not required due to chemical contamination.



Eutrophication
or Undesirable
Algae

Eutrophication or Undesirable Algae

2008 Criteria

This BUI will be considered restored when:

No waterbodies within the AOC are included on the list of impaired waters due to nutrients or excessive algal growths in the most recent Clean Water Act Water Quality and Pollution Control in Michigan: Section 303(d) and 305(b) Integrated Report, which is submitted to U.S. EPA every two years.

In addition, the MDEQ is in the process of developing nutrient criteria for state surface waters which will be adopted into Michigan's WQS. The MDEQ will evaluate restoration of this BUI consistent with the nutrient criteria when the nutrient criteria are approved by the U.S. EPA and adopted into rule.

Eutrophication or Undesirable Algae

2015 Criteria

This BUI will be considered restored when:

1. No waterbodies within the AOC are included on the list of non-attaining waters due to excessive algal growths from high nutrient loadings in the most recent Clean Water Act Water Quality and Pollution Control in Michigan: Section 303(d) and 305(b) Integrated Report (Integrated Report), which is submitted by DEQ to U.S. EPA every two years.
2. Or, in cases where water bodies within the AOC are either on the non-attainment list or exhibit excessive algal growth from high nutrient loadings, this BUI will be considered restored when no persistent or high levels of nuisance algal growths or nuisance algal blooms occur for 2 consecutive monitoring cycles.

For the purposes of these criteria, the properties that cause AOC BUI impairment are unnatural or natural algal growths which are exacerbated by human activities. They must be persistent and high enough levels to be a nuisance. The assessments are not for the purpose of determining whether water quality standards are being met under state or federal law.



Beach
Closings

Beach Closings

2008 Criteria

This BUI will be considered restored when:

1. No waterbodies within the AOC are included on the list of non-attaining waters due to contamination with pathogens in the most recent Clean Water Act Water Quality and Pollution Control in Michigan: Section 303(d) and 305(b) Integrated Report (Integrated Report), which is submitted to U.S. EPA every two years.
2. OR, in cases where the waterbodies within the AOC are on the list of non-attaining waters due to the presence of Combined Sewer Overflows (CSOs) or are impacted by upstream CSOs, this BUI will be considered restored when:

- Updated information reveals that the CSOs have been eliminated or are being treated.

3. OR, in cases where CSOs still exist and significant progress has been made towards their elimination or treatment, this BUI will be considered restored when:

Monitoring in the AOC during the recreation period, using the sampling protocol outlined in Rule 62 of the Michigan WQS, meets the following criteria:

- The sampling plan and Quality Assurance Project Plan are approved by the MDEQ;
- E. coli concentrations are below a 30-day geometric mean of 130 counts per 100 milliliters (ml);
- At least 90% of sample results are below the daily geometric mean limits of 300 counts E. coli per 100 ml;
- No more than 1 of the sample results exceed the partial-body contact water quality standard of 1,000 counts E. coli per 100 ml based on a daily geometric mean; and
- DEQ-approved plans in a National Pollutant Discharge Elimination System (NPDES) permit are in place for addressing any remaining CSOs that are causing BUIs and the implementation plan is on schedule.

Sampling under approach 3 is done systematically throughout the recreation season and does not specifically monitor wet weather discharges from CSOs. Meeting the above criteria does not negate regulatory requirements for separating CSOs in order to meet water quality standards.

Beach Closings

2015 Criteria

This BUI will be considered restored when:

1. No waterbodies within the AOC are included on the list of non-attaining waters due to human pathogens in the most recent Clean Water Act Water Quality and Pollution Control in Michigan: Section 303(d) and 305(b) Integrated Report (Integrated Report), which is submitted to U.S. EPA every two years.
2. **OR**, in cases where waterbodies within the AOC are on the list of non-attaining waters due to human pathogens, this BUI will be considered restored when human sources of pathogens regulated under the National Pollutant Discharge Elimination System (NPDES) are on schedule to be controlled through implementation of permit requirements.

Lessons Learned

- Original criteria may have been overly broad and complex.
- They may not have been achievable within reasonable timeframes (even decades).
- Some conditions are not necessarily AOC-generated and are not within the scope of the AOC program to resolve.

Outside Engagement

- Statewide Public Advisory Council,
- 14 local Public Advisory Councils, and
- GLNPO review and input.

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