

Ohio's AOC Delisting Guidance and Restoration Targets



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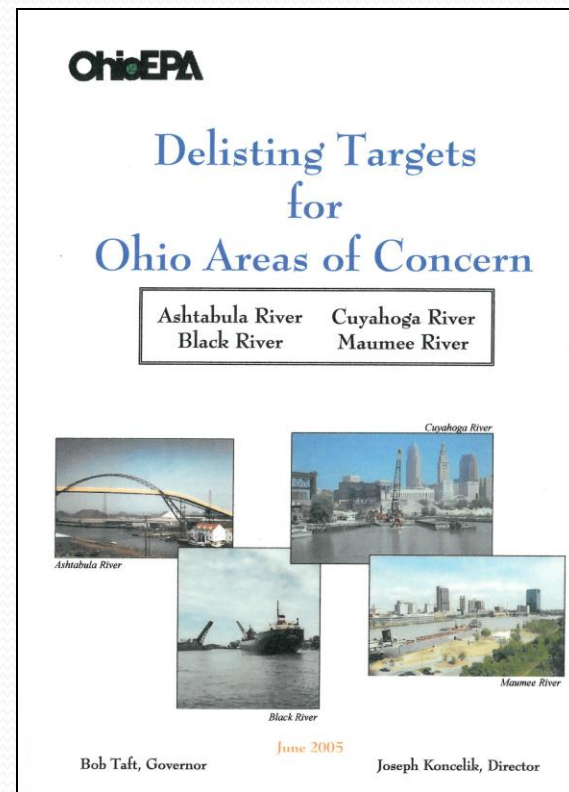
Ohio EPA Lake Erie Coordinator

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Maumee AOC Spring/Summer Summit

Previous Target Development

- 2005 – Original Targets
 - 2 year effort (Ohio EPA only)
 - Used WQS where possible
 - Looked at other AOCs for ideas
 - Ended up with some fuzzy targets
- 2008 – Updates
 - Applied WQS updates and other new info
 - Housekeeping revision



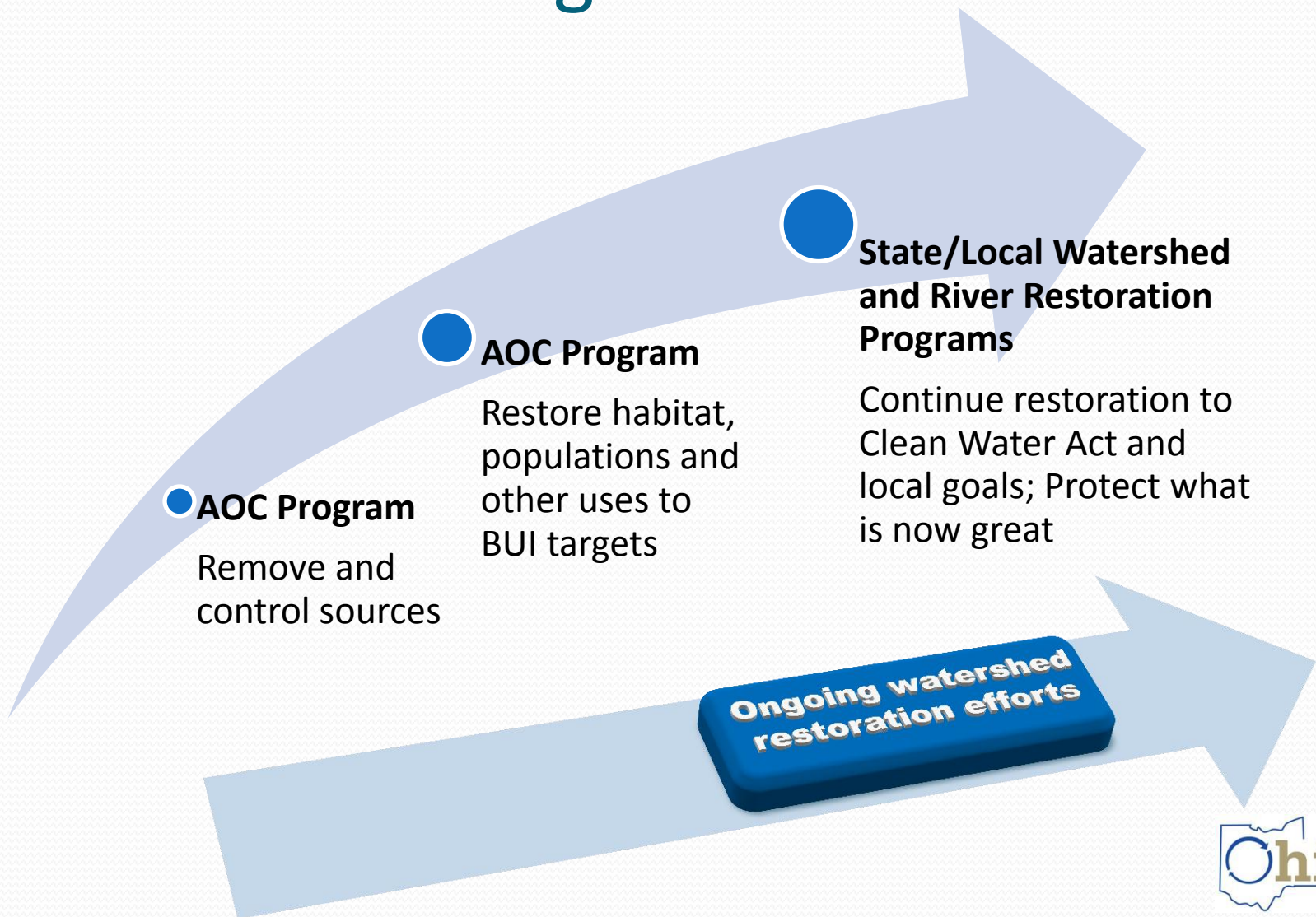
Problems with previous BUI targets

- Too subjective
- Lack of clarity on how to evaluate data
- Too stringent...bar too high for the AOC objectives
 - WQS not necessarily = AOC target
- Need a defined restoration vision
- Lacked description of how State/Local RAP will work together

2014 Revision – Need for Overhaul

- A lot has happened since 2008....
 - GLRI and the push to delist revealed deficiencies in our current targets
- Decided to conduct a comprehensive review of all BUIs and revamp State guidance to clarify the process
- 2+ year process with larger group involved (OEPA, USEPA, RAPs)
- Overarching objectives
 - ✓ appropriate
 - ✓ cost-effective
 - ✓ measurable
 - ✓ available

Role of AOC Program



Key Steps to New Targets

✓ Review and Revise

- Internal development and review
- USEPA and other federal agency review and comment
- Local RAP review and comment
- Clarify the role of AOC program in overall restoration picture

❑ Finalize – Ohio EPA management approval (pending)

❑ Formal request to local RAPs to decide if they will adopt targets in whole or intend to develop alternative targets

- If development of alternative need to include timeframe

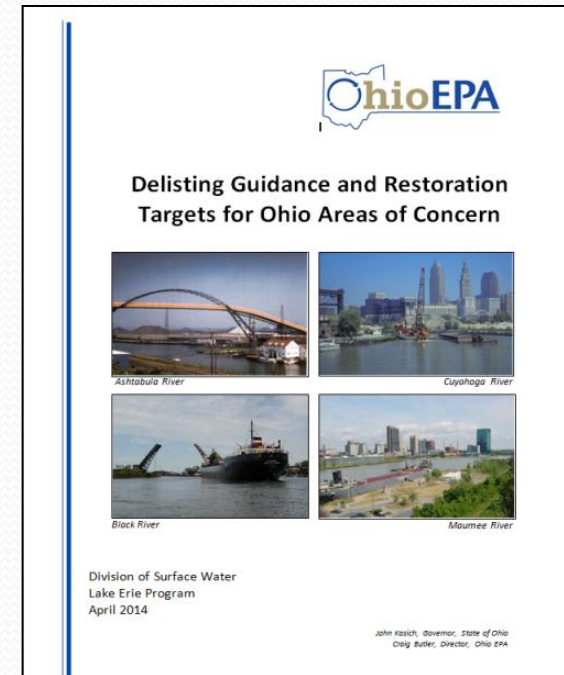
❑ Ohio EPA RAP Coordinators evaluate status of BUIs and present to local RAP for discussion and concurrence

Big Picture Changes

- Differentiated from Water Quality Standards and 303(d) when possible
- Redefined where BUI applies and handoff to other programs where appropriate
- Clarified how indicators should be averaged within the assessment units
- Considered realistic restoration potential based on type of waters and existing uses
- Identified potential data sources for each BUI

Document overview

- Path to Delisting
 - Explains the process and responsibilities of BUI removal, AOC delist, etc.
- Restoration Targets
 - IJC and Ohio Listing Guidelines and Ohio Restoration Target
 - Includes target, potential data sources, rationale and references
- Appendices
 - Ohio WQS, biological criteria, AOC HUCs, acronyms, etc.



Target Overview – minor edits

- BUI 1 – Restrictions on fish and wildlife consumption
- BUI 2* – Tainting of fish and wildlife flavor
- BUI 5* – Bird or animal deformities
- BUI 7 – Restriction on dredging
- BUI 9* – Restrictions on drinking water

*Not impaired in an Ohio AOCs

Target Overview – major changes

- BUI 3 – Fish and wildlife populations
- BUI 4 – Fish tumors and other deformities
- BUI 6 – Degradation of benthos
- BUI 8 – Eutrophication or undesirable algae
- BUI 10 – Beach closings (recreational contact)
- BUI 11 – Degradation of aesthetics
- BUI 13 – Degradation of phytoplankton
- BUI 14 – Loss of fish and wildlife habitat

BUI 3 - Degradation of Fish Wildlife Populations



Fish Populations

- Still based on IBI and MIwb metrics
- BUI targets incorporate non-significant departure value
- Clarified targets for limited resource and modified warmwater habitat designated waters
- Average values within designated assessment unit

Wildlife Populations

- Coordinating with ODNR to utilize annual Wildlife Population Status Reports

BUI 4 – Fish Tumors and Other Deformities

- Adjusted target DELT % higher to reflect average conditions
- Adopted 5% bullhead liver rate as target
- Waiting on final brown bullhead liver tumor rates from Ohio EPA's GLRI study



BUI 6 - Benthos

- Added mayfly target for Maumee Bay
- Clarified targets for lacustrine, LRW, etc...
- Lacustrine ICI target revised to be more attainable
- Will not evaluate ICI metric for waters that are routinely dredged (target related to restoration potential)



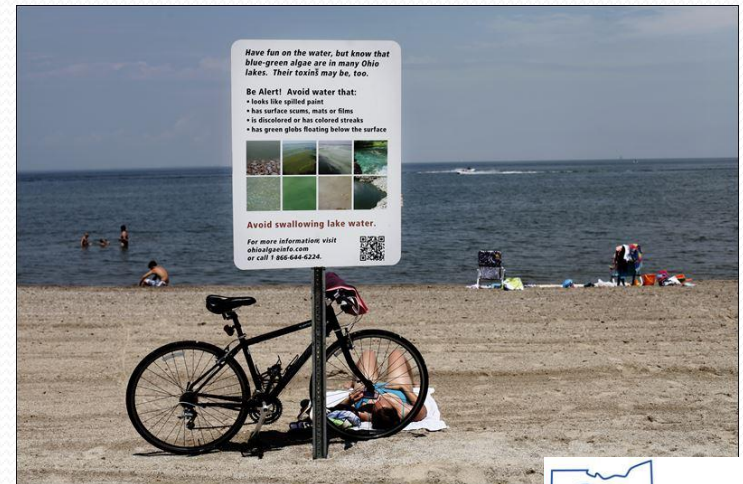
BUI 8 – Eutrophication

- Using the new Trophic Index Criterion where available for rivers
- If the Trophic Index is not available, then narrative condition of no persistent algal growths within the last three years due to sources within the AOC
- Lacustraries: D.O. criteria and same narrative condition

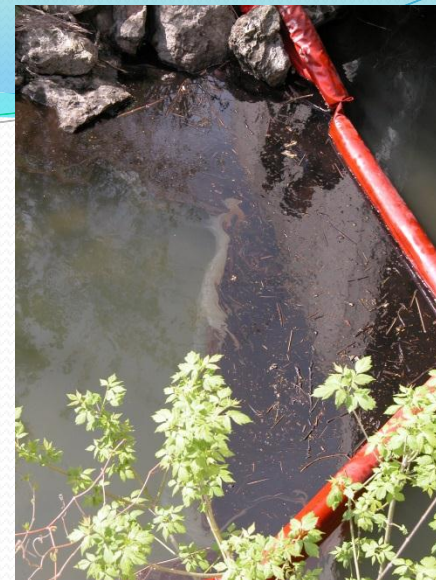


BUI 10 – Beach Closing

- Narrowed from whole AOC to just publicly monitored beaches and Class A streams
 - Follows language in IJC listing guideline
- Created CSO & TMDL targets to allow for other programs to “take over” if it is under their existing authority



BUI 11 - Aesthetics



- Former target focused on all “free froms” but some are covered under other BUIs, so now only conditions A-C
 - Examples: nutrient related impairment addressed by BUI 8, sewage by BUI 10.
- Created new targets to hand off implementation to other programs where appropriate
 - Examples: CSOs, MS4s
- Most subjective BUI and difficult to “measure”

BUI 13 – Degradation of plankton populations

- Ohio EPA considers this BUI not applicable to riverine systems
- Only place applicable in Ohio is Maumee Bay in Maumee AOC
- Due to lack of existing data to monitor this issues, BUI 3 – Fish was determined to be a surrogate
- Potential consideration for plankton metric but not available for near term assessment



BUI 14 – Fish & Wildlife Habitat

Fish Habitat

- still based on QHEI metrics
- average values within designated assessment unit

Wildlife Habitat

- New targets based on land use w/in Lake Erie basin, implementation of habitat restoration plan



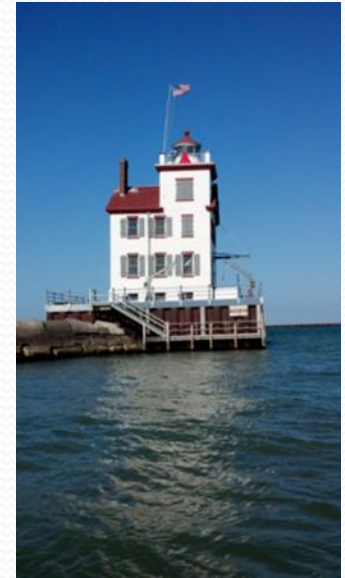
Local RAP Comments

PCS (Maumee), CRCPO (Cuyahoga) and City of Lorain (Black)

- Some concern about roles/responsibilities between Ohio EPA and local RAP
- Data: minimum requirements, averages, age, etc.
- Procedure to establish local targets
- Some want more specificity and others want local flexibility
- Some confusion with AOC vs. Clean Water Act targets/criteria

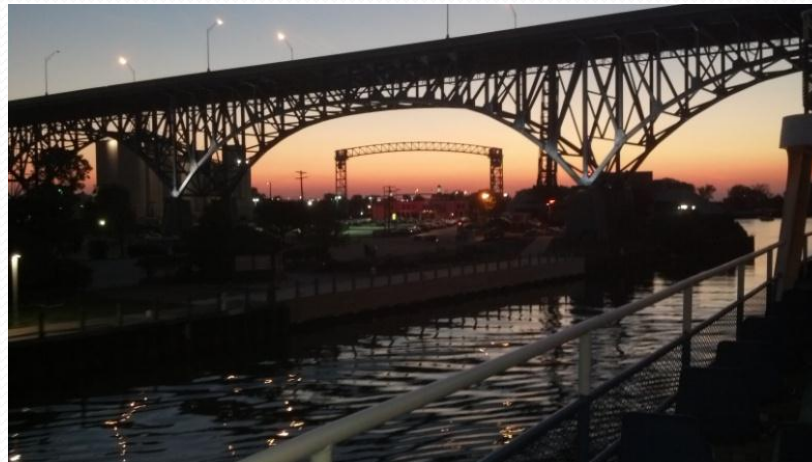
Local Targets – if needed

- Understand the data & documentation needs
- Appropriate for AOC Program
- Functionally equivalent to state targets
- Will require OEPA and USEPA agreement
- If based on unique data, local RAP may be required to provide data



Conclusion

- Targets should be appropriate for AOC program
- Agreement on the process, targets and restoration needs is critical
- Cannot remove all subjectivity
- A clear vision will accelerate BUI removal and AOC delisting



Questions...

“Delisting Guidance and Restoration Targets for Ohio Areas of Concern”

will be posted soon at:

<http://www.epa.state.oh.us/dsw/lakeerie/index.aspx>

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