

Combined BUI Analysis: Loss of Fish and Wildlife Habitat & Degraded Fish and Wildlife Populations

3 MARCH 2016
AOC CONFERENCE

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“Based on a review of historical RAP documents, we found we could **not** picture each AOC in a restored state. We couldn’t state with certainty what habitat types or populations needed to be restored in each AOC.”

– 2008 GLNPO Guidance Document



BUI Status

Degraded Populations

Eighteenmile
Creek

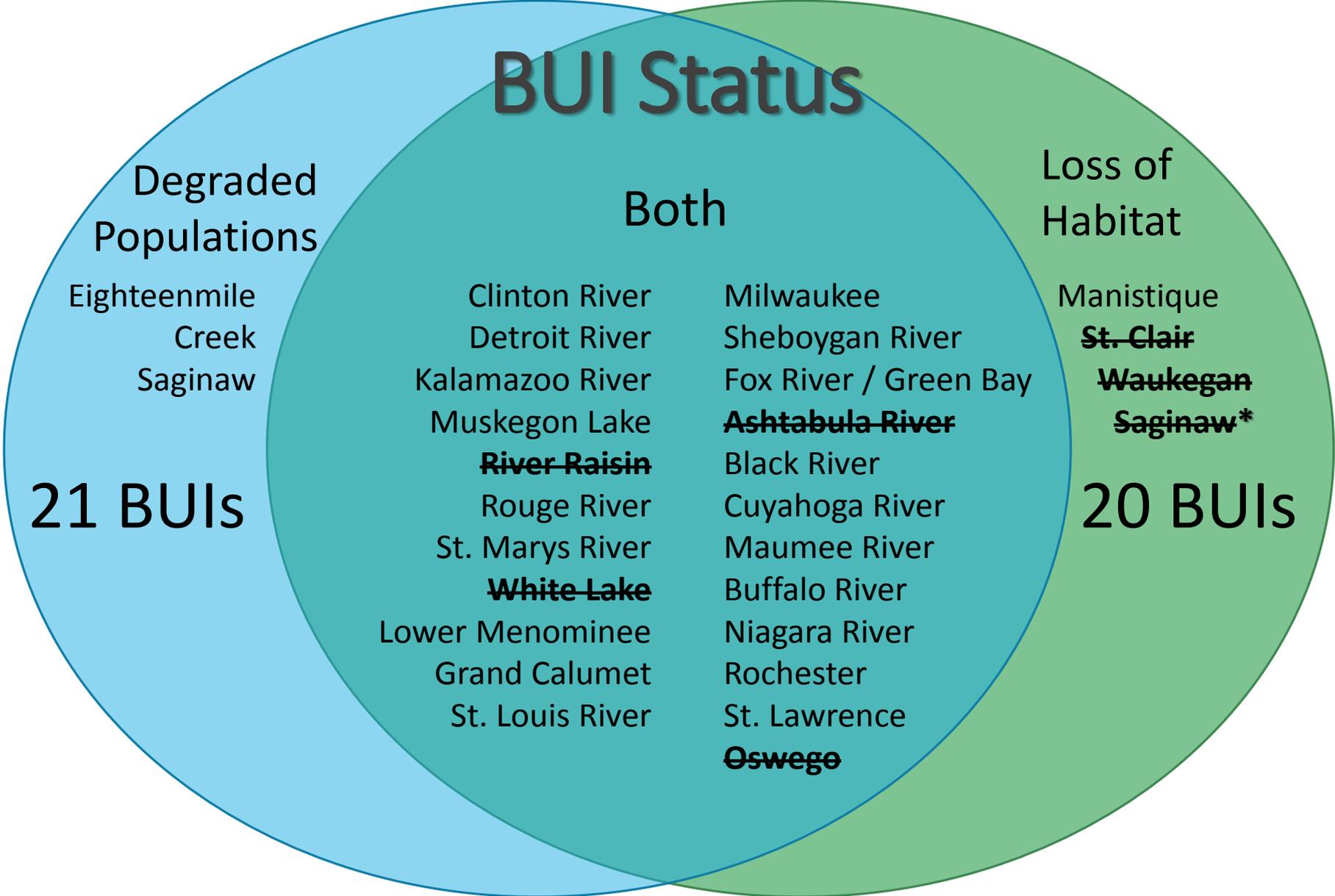
Both

- Clinton River
- Detroit River
- Kalamazoo River
- Muskegon Lake
- River Raisin
- Rouge River
- Saginaw River & Bay
- St. Marys River
- White Lake
- Lower Menominee
- Grand Calumet
- St. Louis River
- Milwaukee
- Sheboygan River
- Fox River / Green Bay
- Ashtabula River
- Black River
- Cuyahoga River
- Maumee River
- Buffalo River
- Niagara River
- Rochester
- St. Lawrence
- Oswego

Loss of Habitat

Manistique
St. Clair
Waukegan

BUI Status



Aspects Compared

- Similarities and differences between how states handle these BUIs
- Pathway to BUI removal
- Management Plans



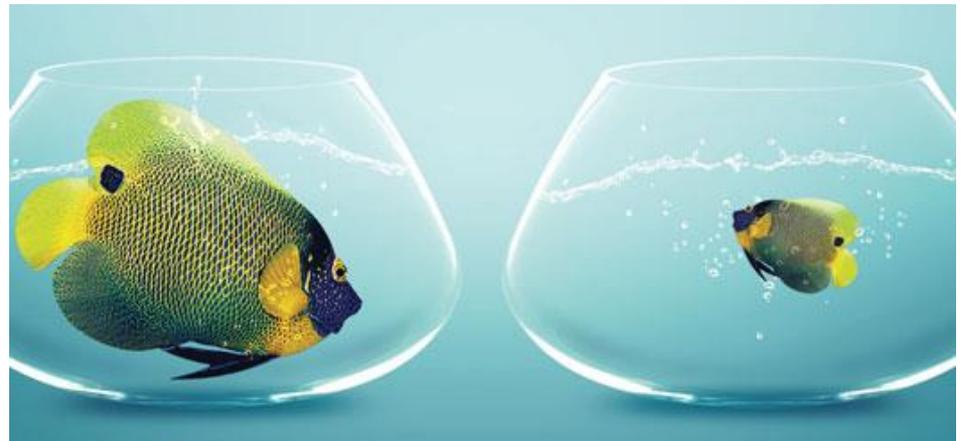
Key Actors

- State and Federal Agencies
- Local Municipalities and Governments
- Local Communities
- Landowners
- Consultants & Contractors



Similarities & Differences

- Each AOC has its own set of specific challenges that result from the location and history of the site.
- Site-specific features.
- It is difficult to establish universal goals or endpoints for these BUIs.
- Similar in *approach* to developing goals and site-specific targets.



Pathway → Target is just a step

Define
Problem
and Goals

Local
Removal
Targets Set

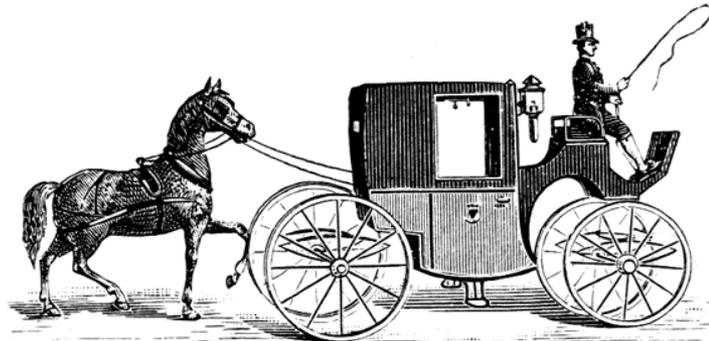
Management
Action List

Implement
Projects

Monitoring
&
Verification

BUI Removal

*This isn't working at all... I should warn
others not to put their cart before the horse.*



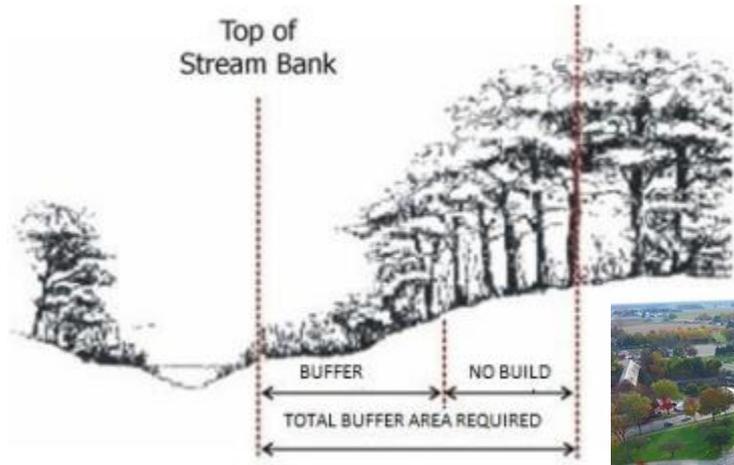


TMDL

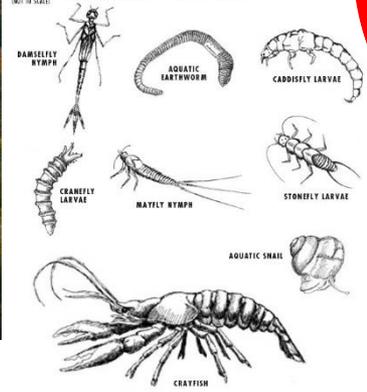
Buffalo River Ecological Restoration Master Plan (ERMP)
JULY 2011

Prepared for: U.S. ENVIRONMENTAL PROTECTION AGENCY Great Lakes National Program Office
Prepared by: Ecology and Environment, Inc.

Buffalo River Ecological Restoration Master Plan



COMMON BENTHIC INVERTEBRATES
(NOT TO SCALE)



303d List



Index Type – Site Type	Qualitative Habitat Evaluation Index (QHEI) Restoration Targets				
	WWH	EWH	MWH ¹	LRW ²	Lacustrary
Riverine	60	75	50	NA	NA
Lacustrary ³	NA	NA	NA	NA	55

Habitat Approaches

Protect

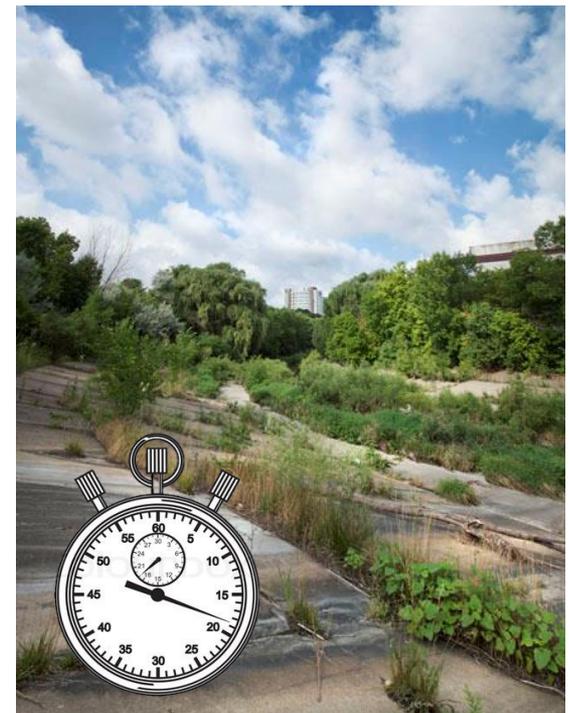


Plan

Create, Restore, Enhance



Monitor



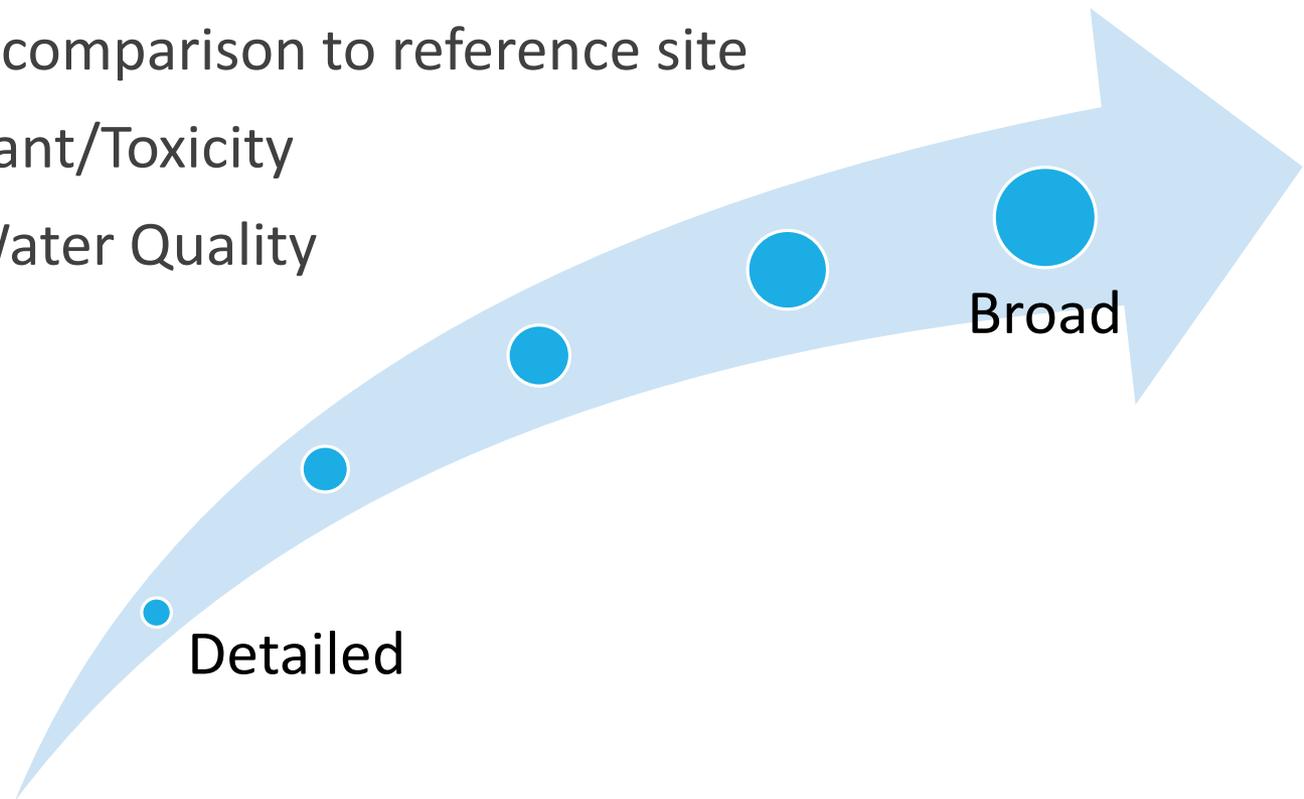
Population Approaches

Biological Indices

Statistical comparison to reference site

Contaminant/Toxicity

Habitat/Water Quality



Local Management/Restoration Plan

1. Description of impairment
2. Site-specific (local) targets. Proposal for all habitat activities needed within the AOC.
3. Identify all other fish and wildlife habitat rehabilitation programs/activities within the AOC .
4. Establish a list of management actions - specific restoration actions necessary to remove BUI.
5. Implement
6. Monitor and Verify

Contact

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