

# The Healing our Waters-Great Lakes Coalition 6<sup>th</sup> annual restoration conference



# Climate Change – predicted impacts to coastal wetlands

**Reduced Ice Cover**

**Lower lake levels**

**Air temperature increase**

**Water temp increase**

**More extreme rain events**

**Change in disturbance regime (less ice scouring)**

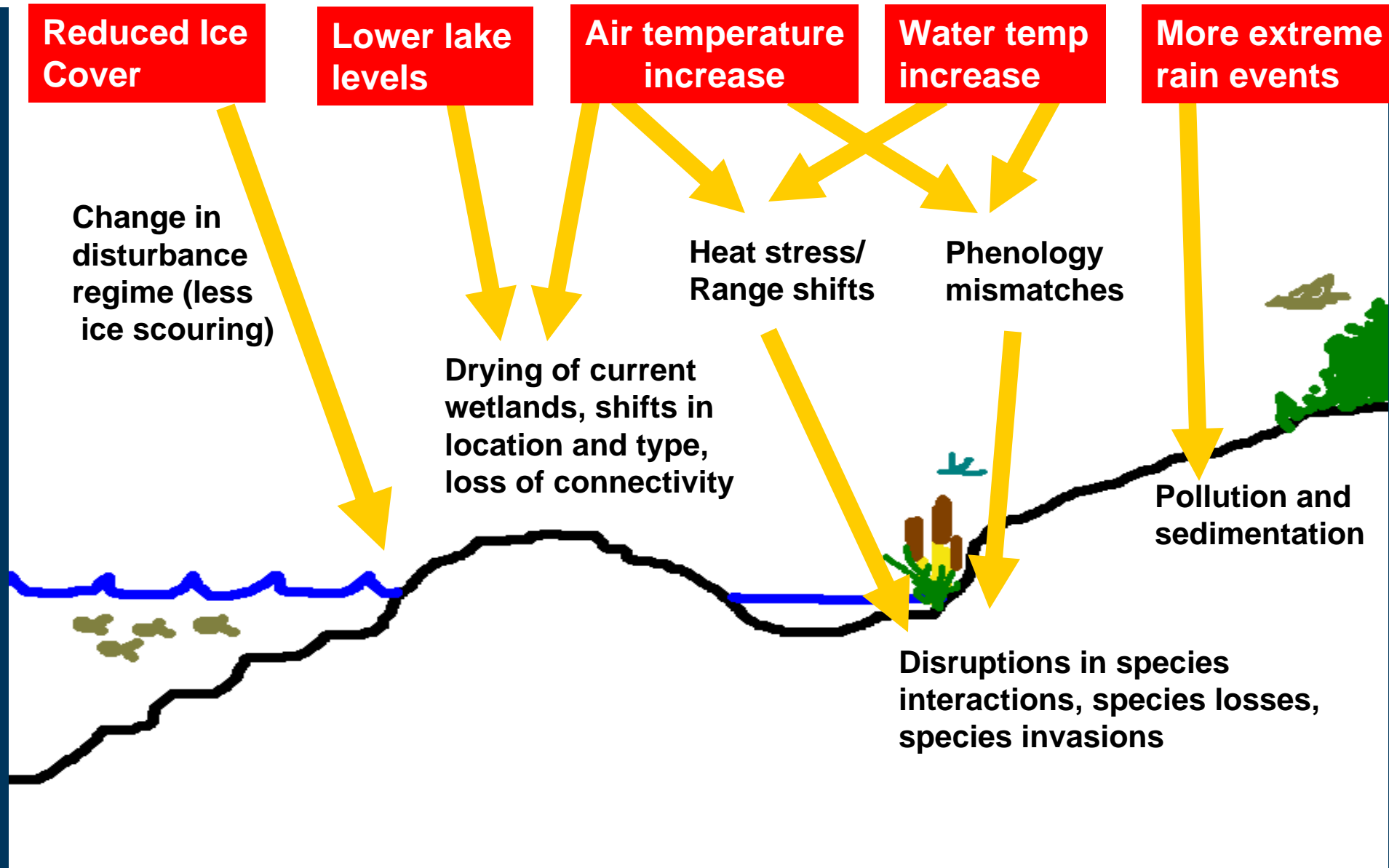
**Drying of current wetlands, shifts in location and type, loss of connectivity**

**Heat stress/  
Range shifts**

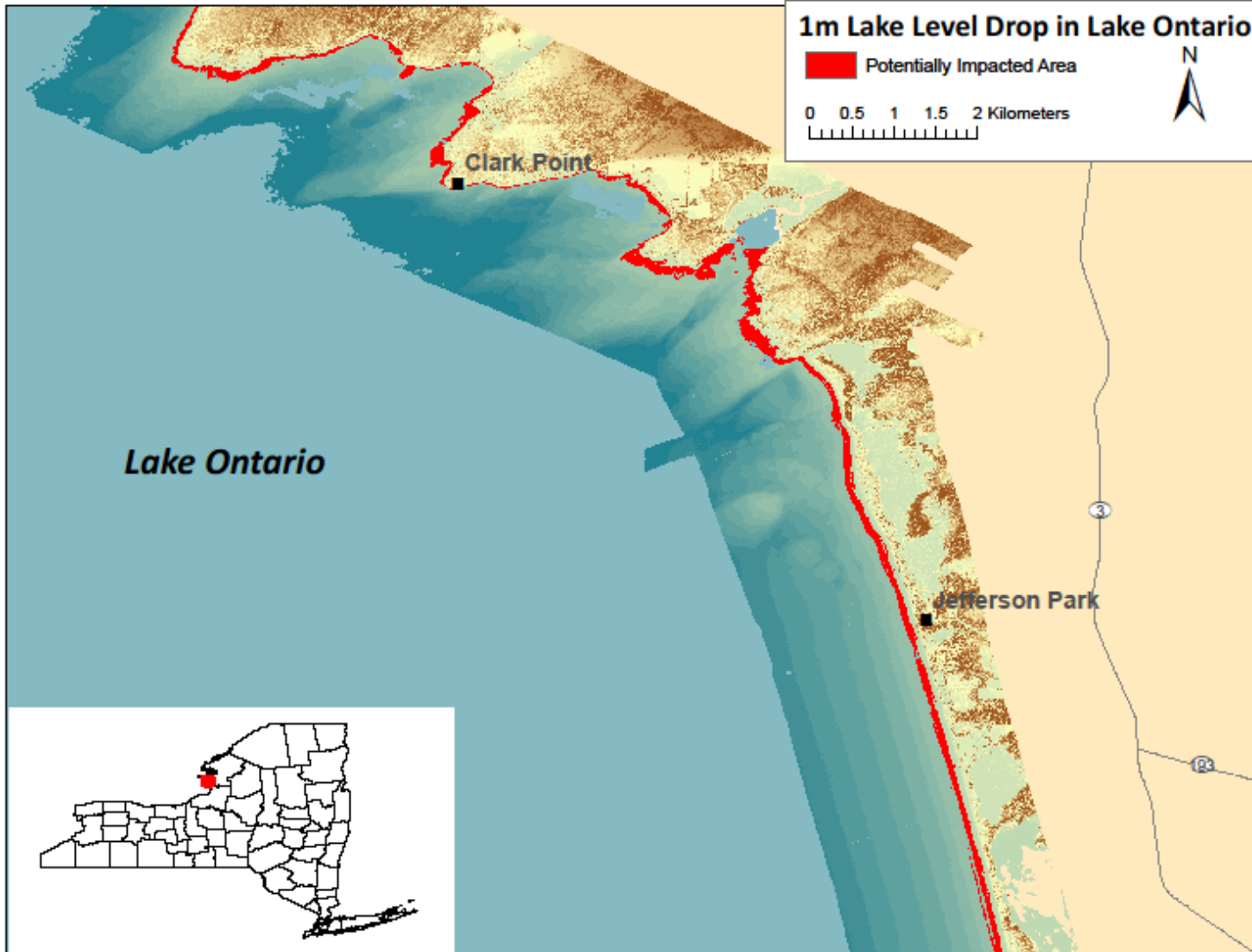
**Phenology mismatches**

**Pollution and sedimentation**

**Disruptions in species interactions, species losses, species invasions**



# How might lower lake levels impact shorelines?



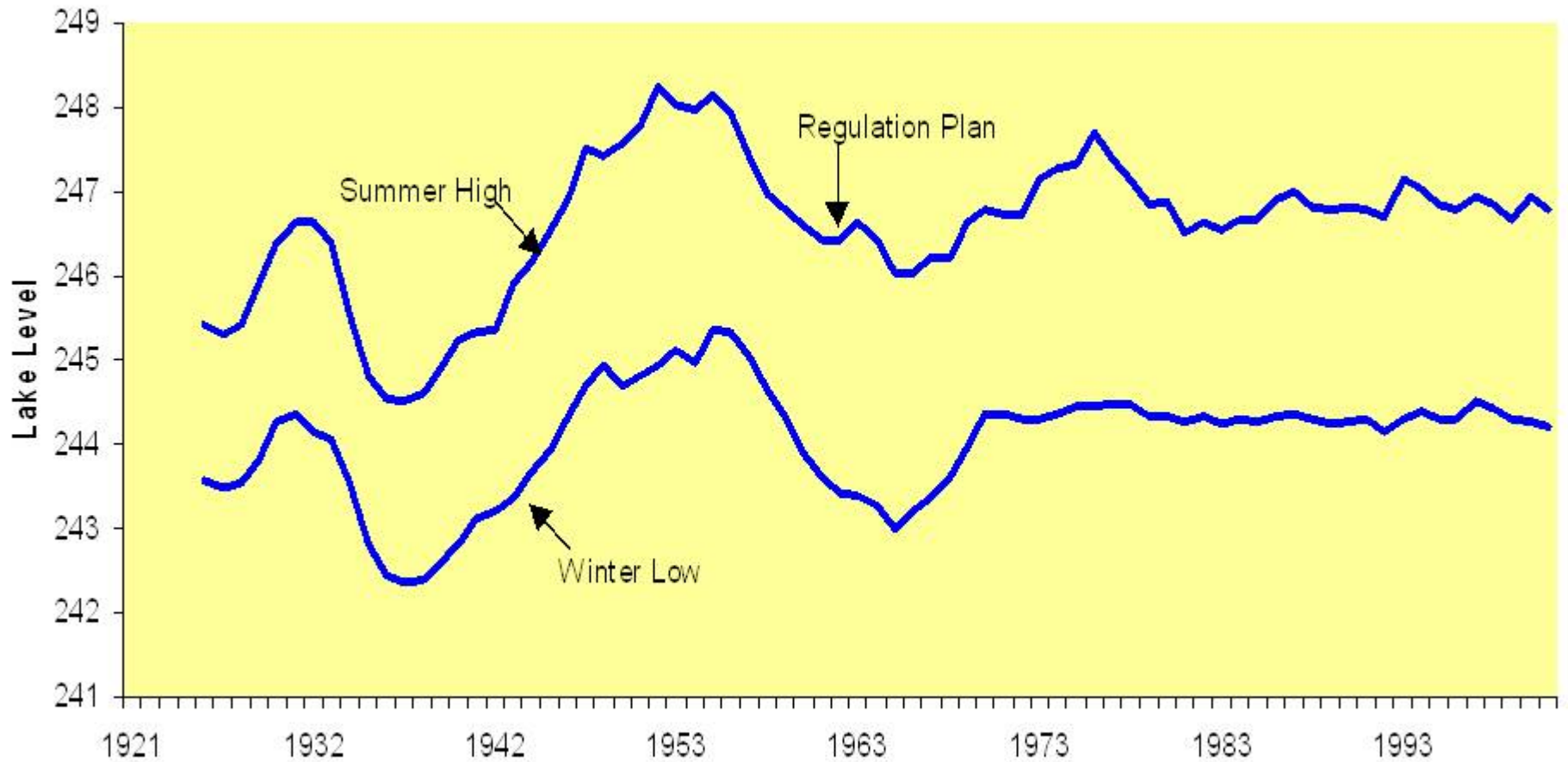
# Seven “R’s” of Adaptation – steps toward resilience

- Protect key ecological features
- Reduce anthropogenic factors
- Representation
- Replication
- Restoration
- Refugia
- Relocation



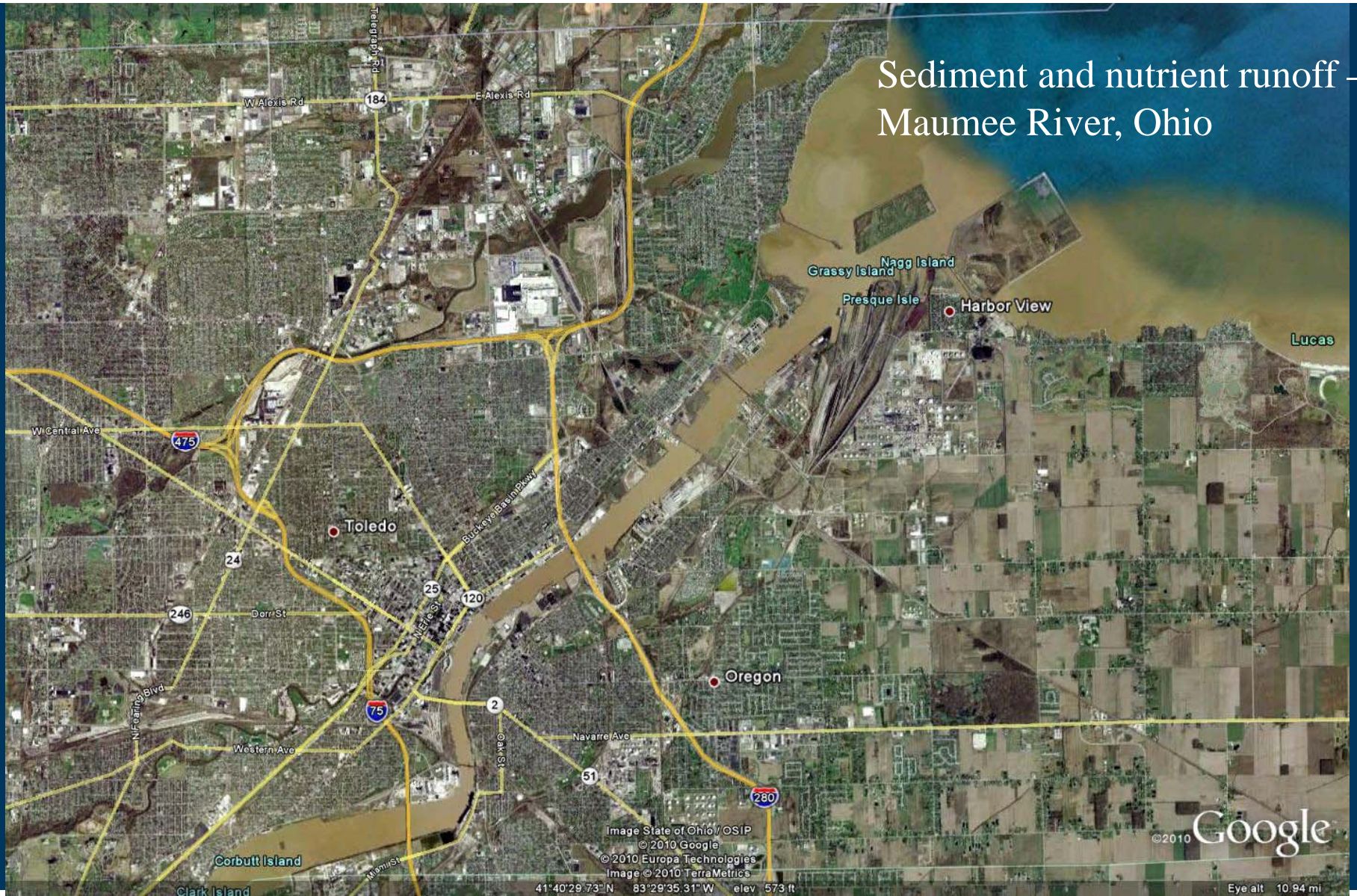
# Protect key ecological features

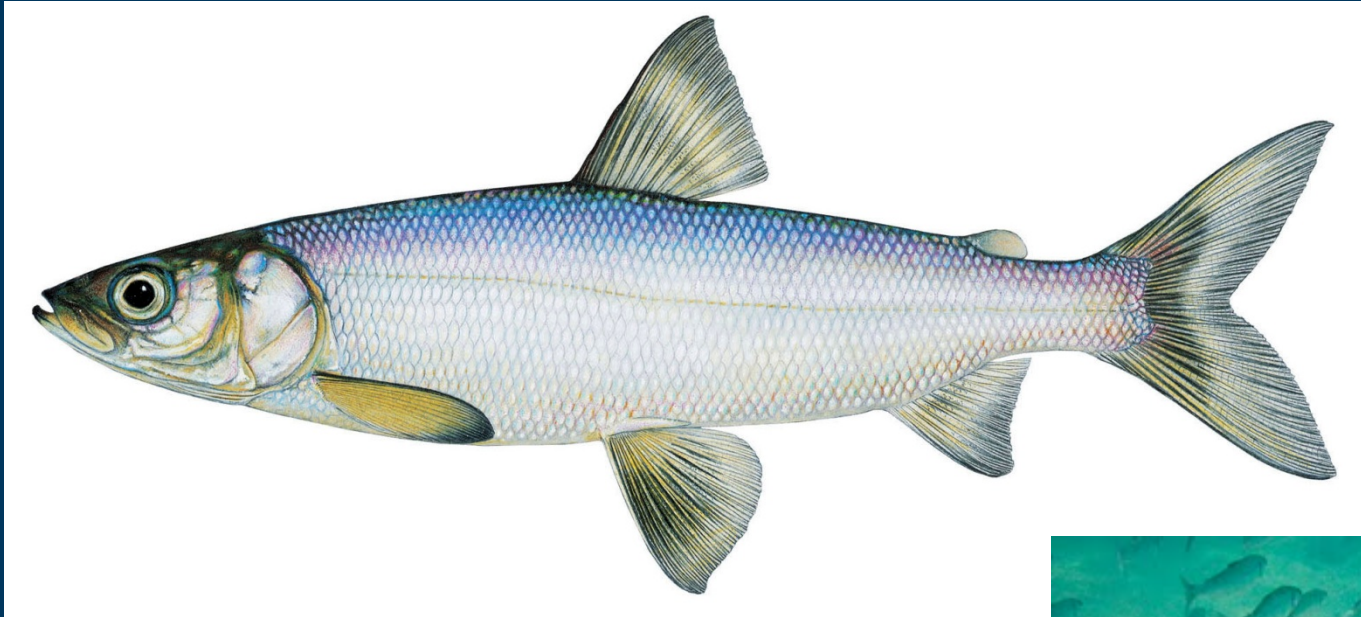
## Lake Ontario regulation



# Reduce anthropogenic factors

Sediment and nutrient runoff –  
Maumee River, Ohio





© Joseph Tomelleri

The lake herring, a key species  
in the native food web – can we  
restore its numbers?



# Replication



Coastal Fens, Eastern Lake Ontario

# Restoration

West Seneca Oxbow, Buffalo River, Erie County NY





Zoar Valley, and Cattaraugus Creek as it flows to  
Lake Erie, Erie County, NY

# Great Lakes Restoration Initiative



*Black tern © Marie Read*

A crucial resource for local and watershed action in support of a basin-wide strategy

Continued GLRI funding – a basin-wide priority