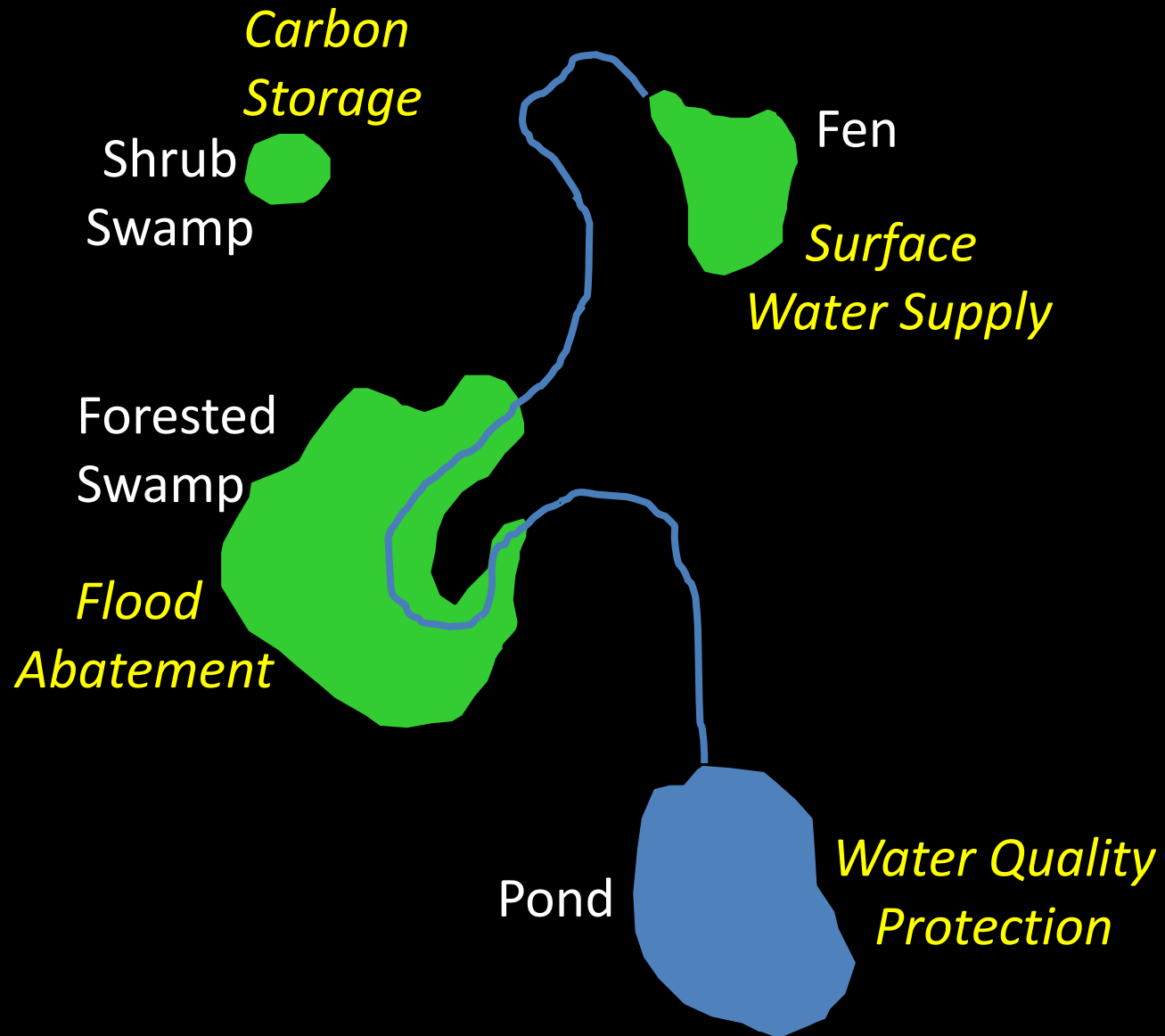




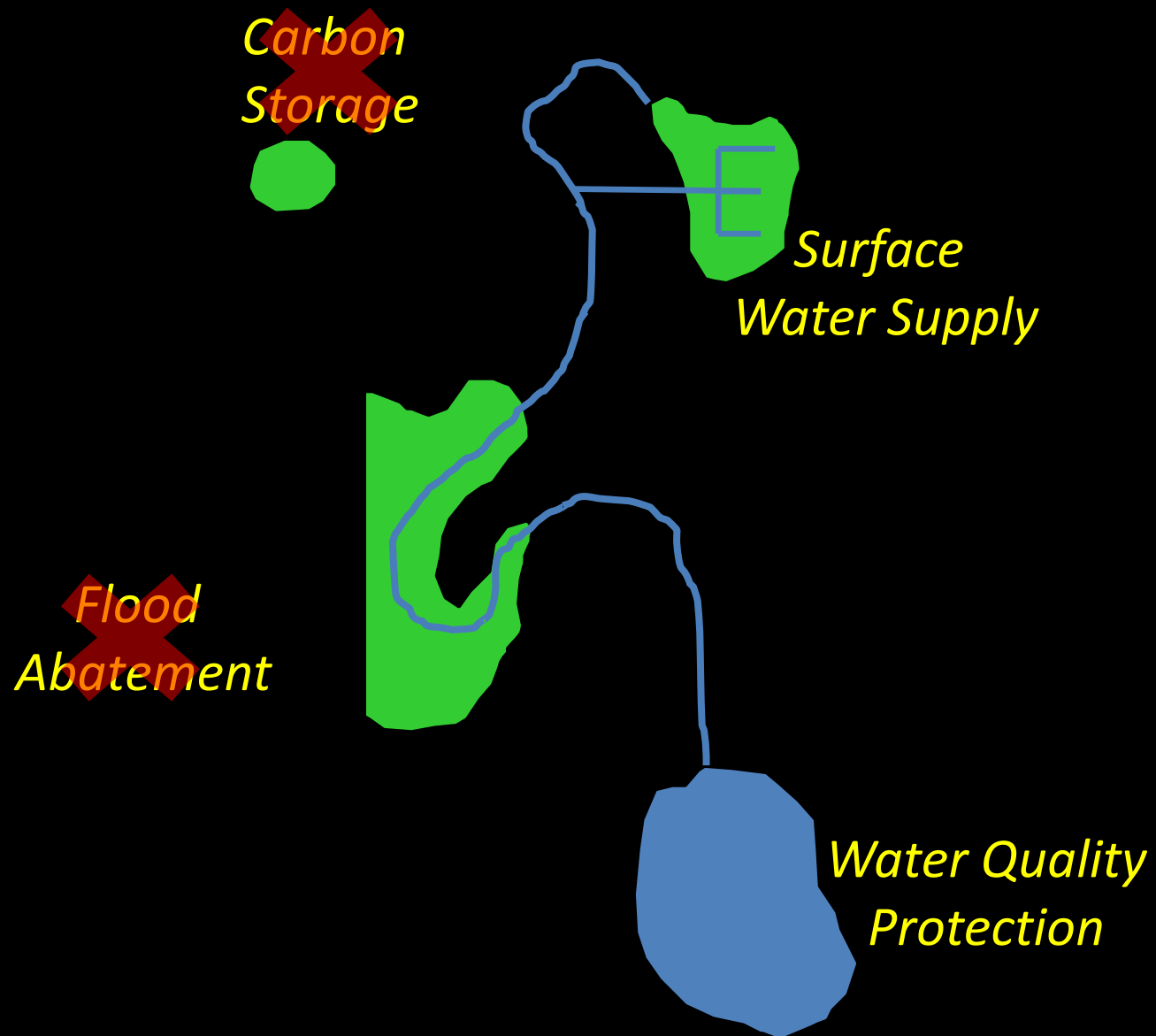
The Watershed Approach

Meeting Watershed Needs through Wetland Mitigation

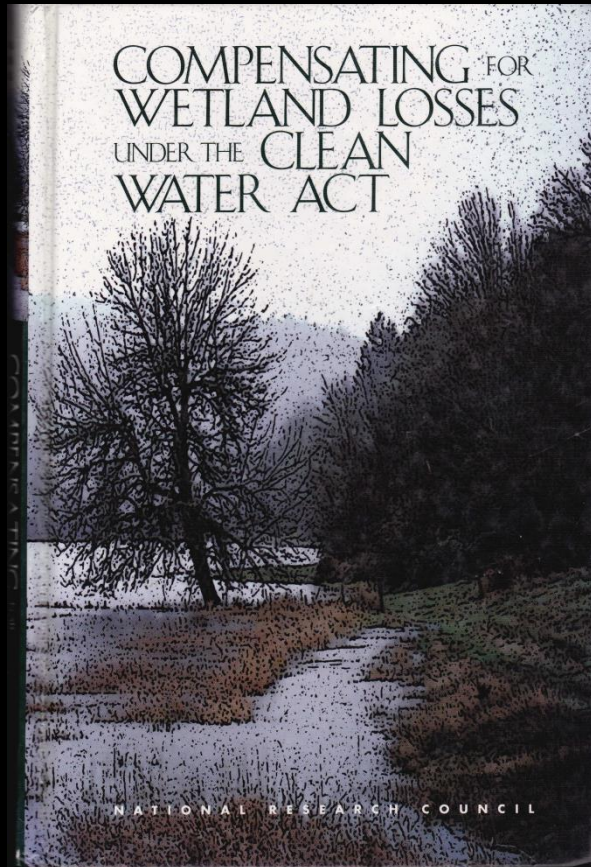
Watersheds Needs



Watersheds Needs

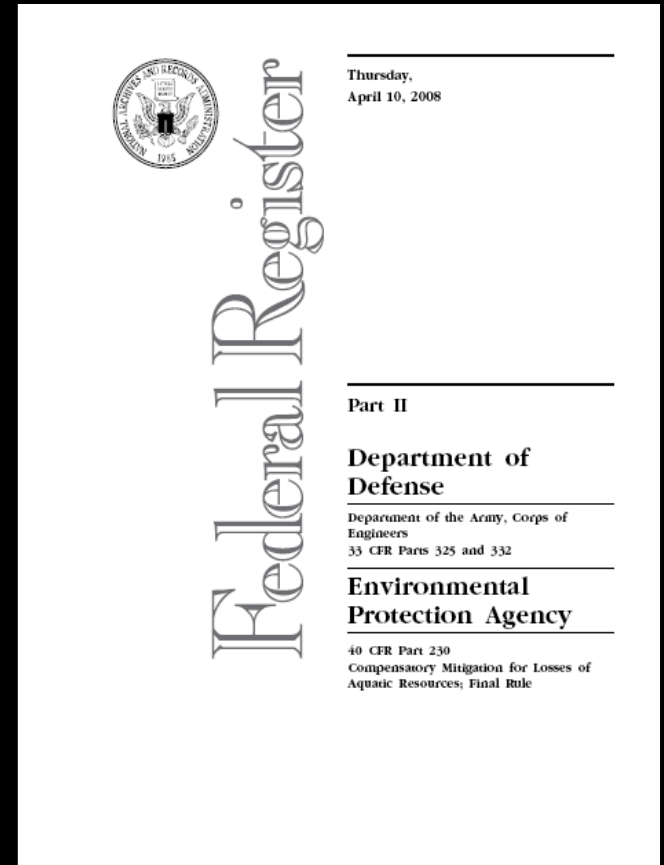


Regulatory Context



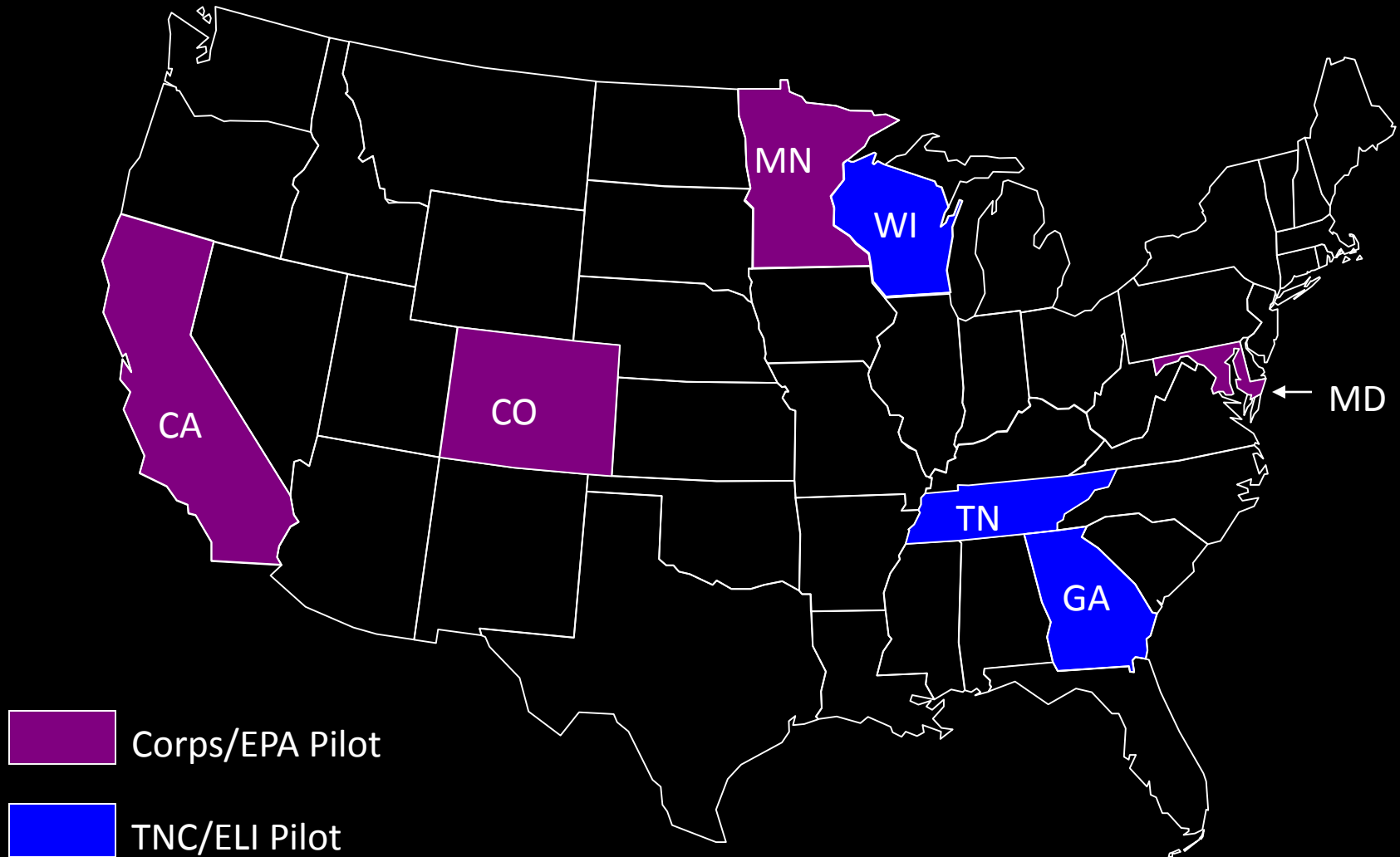
**Avoid
Minimize
Compensate
\$2.9B**

**2001: National
Research Council**



**2008: Compensatory
Mitigation Rule**

Watershed Approach Pilot Projects



Watershed Approach Handbook



Watershed Approach Handbook

Improving Outcomes and Increasing Benefits
Associated with Wetland and Stream Restoration and
Protection Projects

September 2014



Watershed Approach Handbook

Spectrum

Site Decision
Framework

Watershed
Analysis

Watershed
Plan

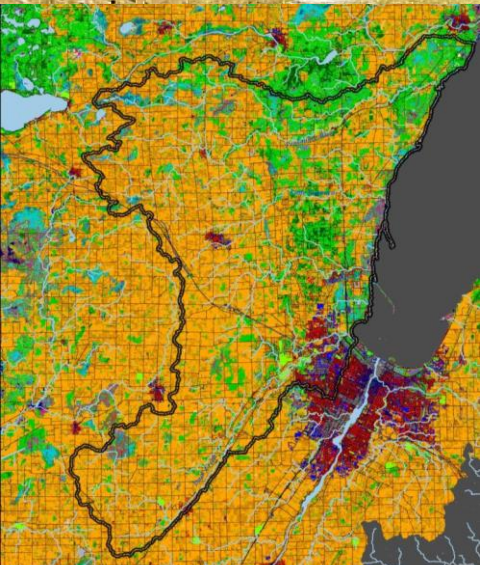
Elements

ID/assess watershed needs	 / 		
ID watershed outcomes	 / 	 / 	
ID sites across watershed			
Assess how sites meet needs			
Prioritize sites & outcomes		 / 	

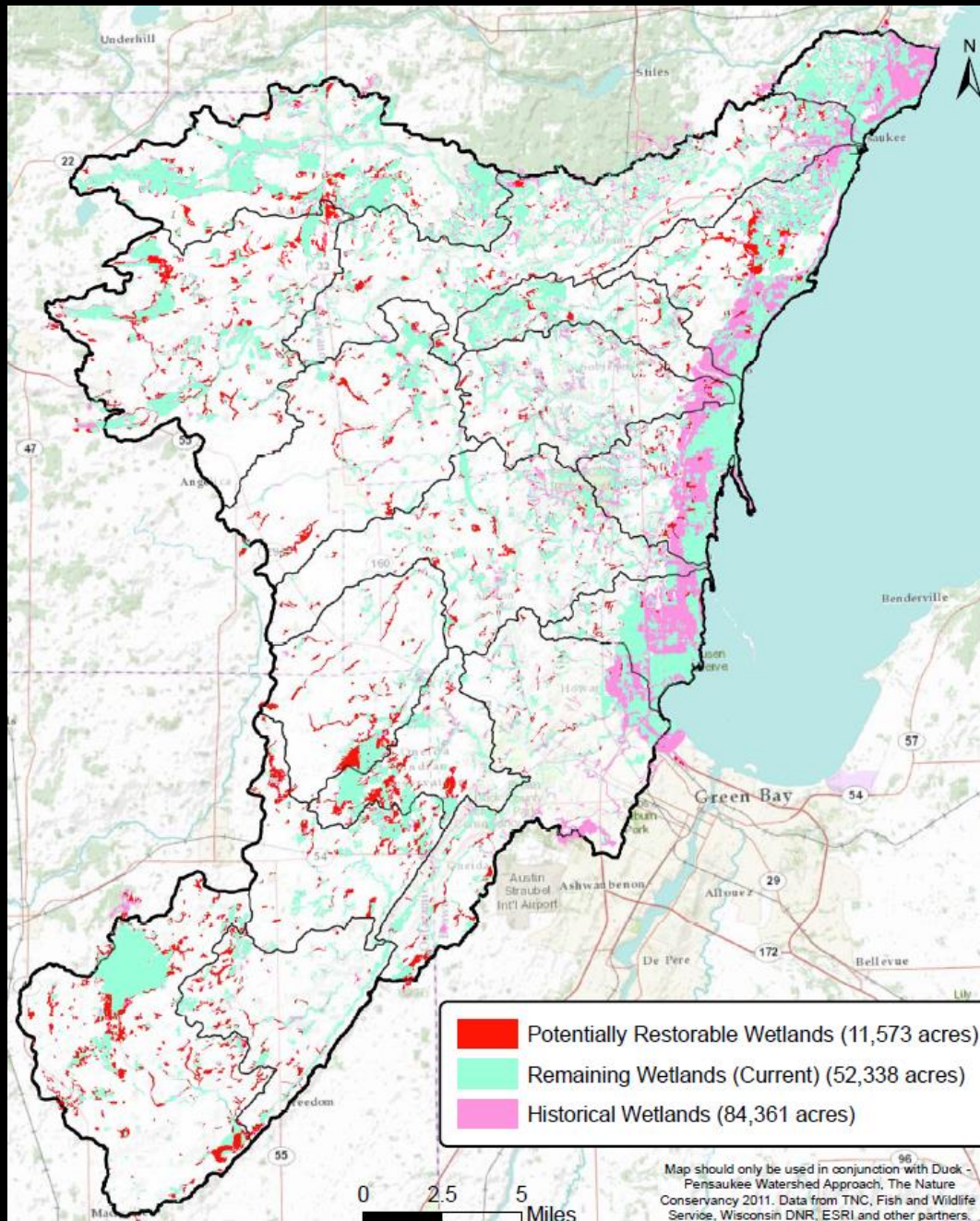


Watershed Approach Elements

- Work with partners
- Identify sites
- Determine watershed needs
- Assess sites
- Prioritize sites

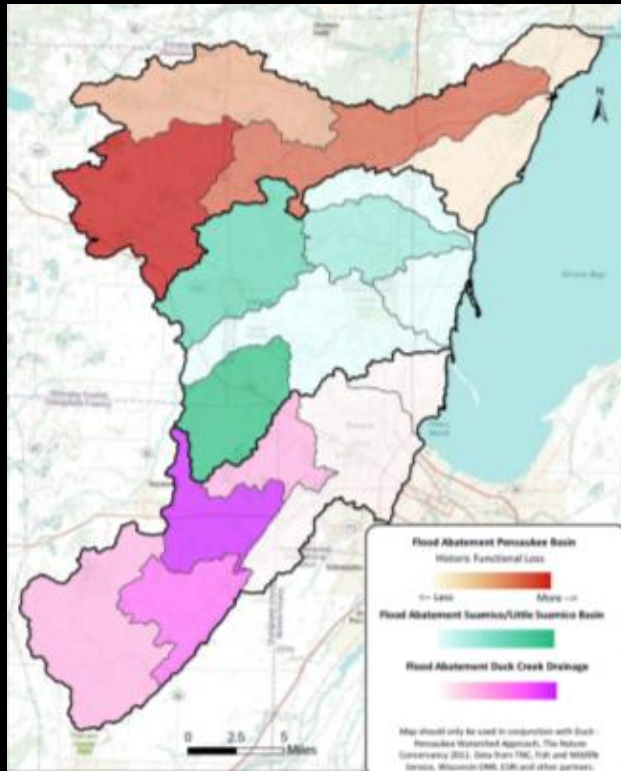


Site ID



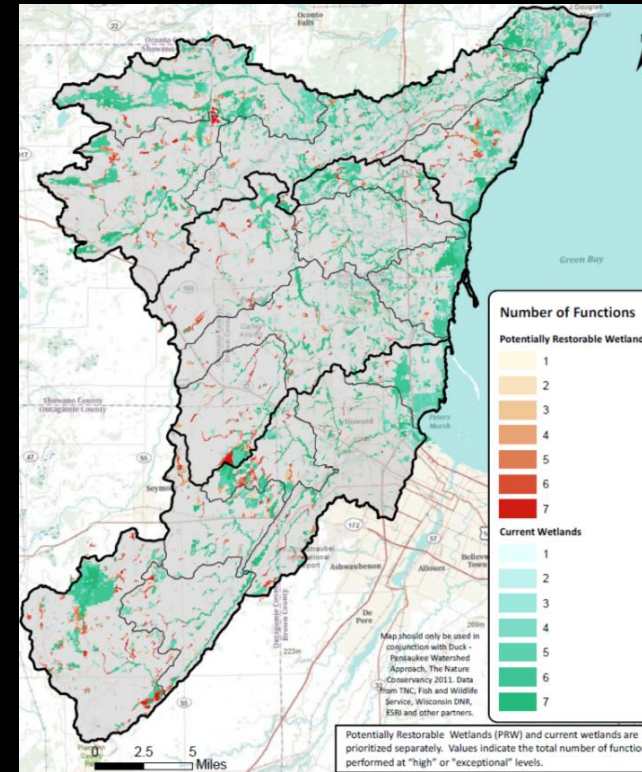
Duck-Pensaukee Watershed Approach

Watershed Needs



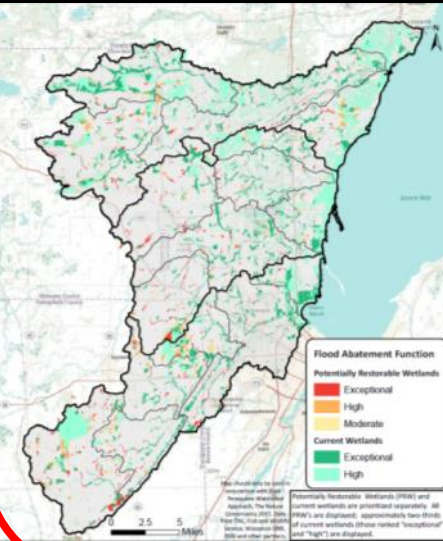
Wildlife Habitat
Flood Abatement
Water Quality
Shoreline Protection
Fish Habitat
Surface Water Supply
Carbon Storage

Site Priorities

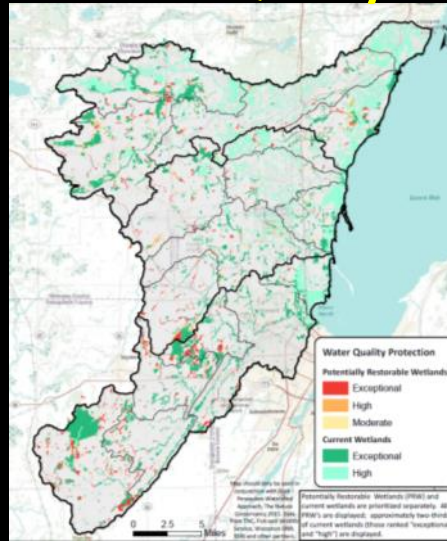


Site Prioritization: *Ecosystem Services*

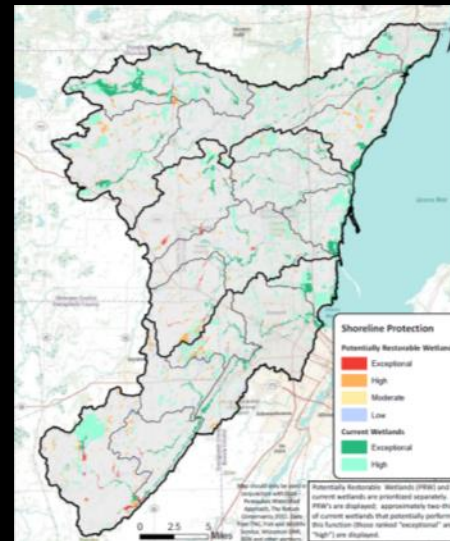
Flood Abatement



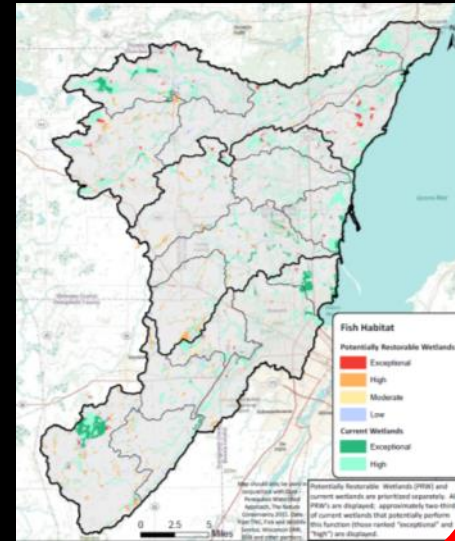
Water Quality



Shoreline Protection



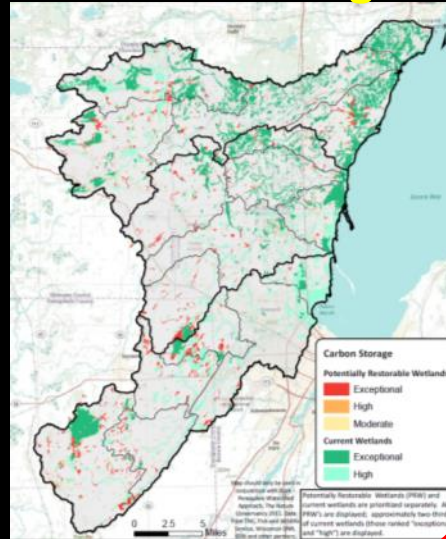
Fish Habitat



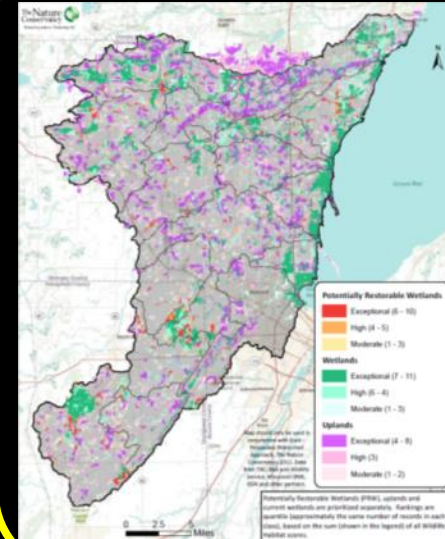
Surface Water Supply



Carbon Storage



Wildlife Habitat



Site Prioritization: *Ecosystem Services*

Example: Flood abatement

Water quality

Shoreline protection

Fish habitat

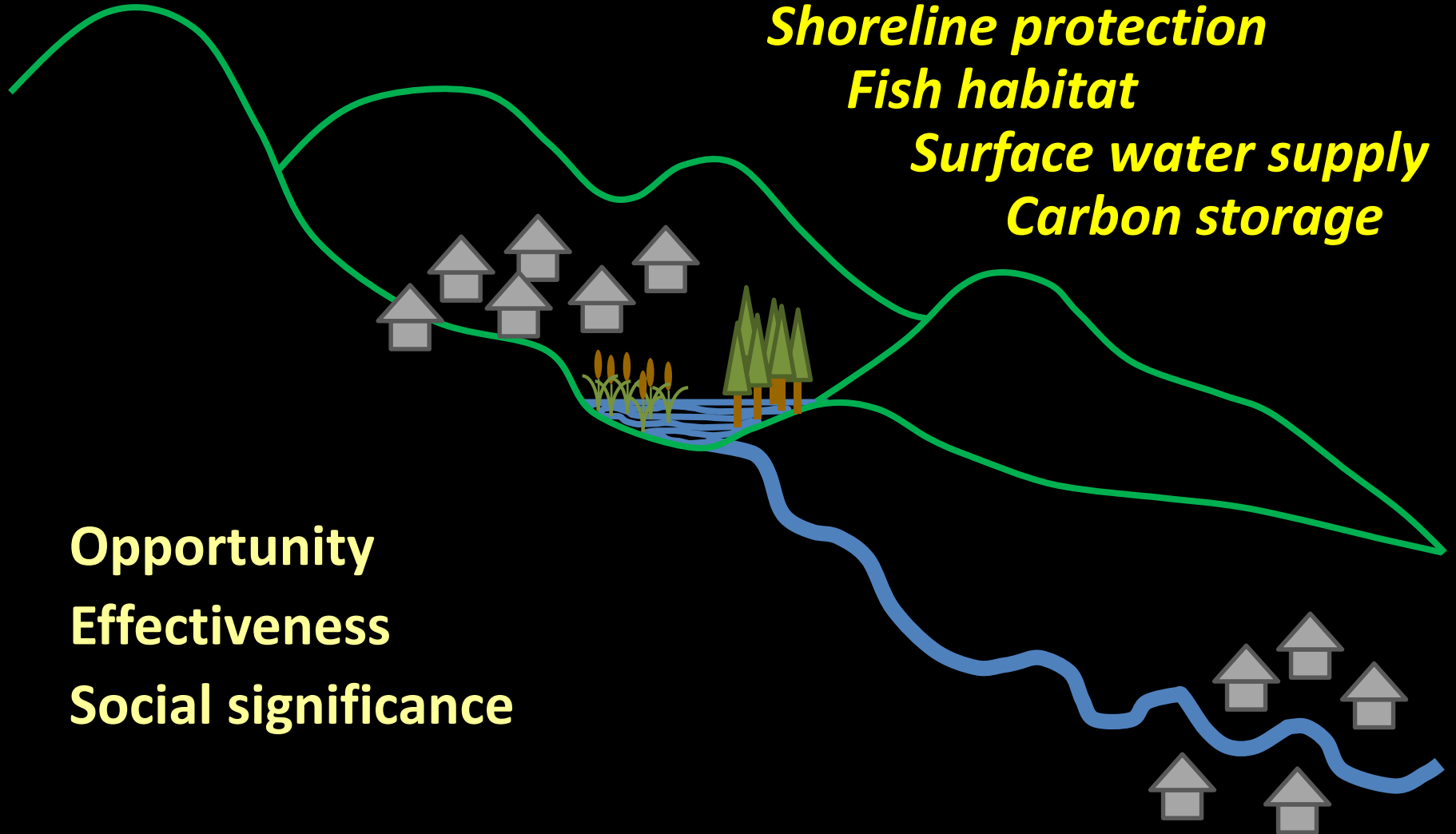
Surface water supply

Carbon storage

Opportunity

Effectiveness

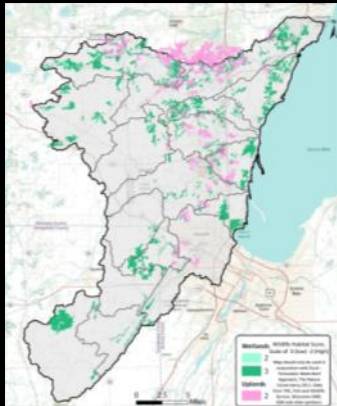
Social significance



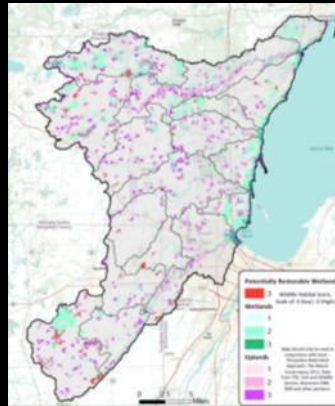
Site Prioritization: *Wildlife Habitat*



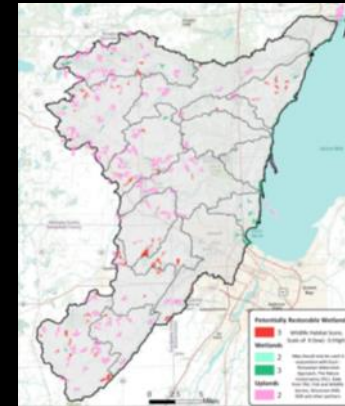
Forested Swamps



Integrated Landscapes



Open Wetlands & Waters



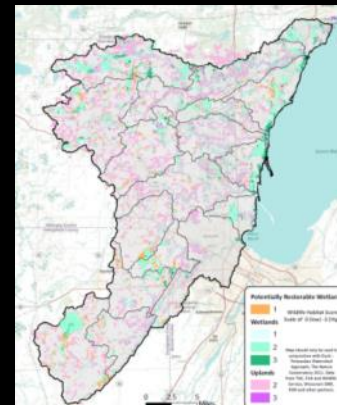
Beaches



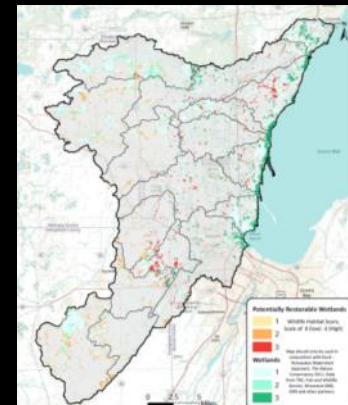
Shrub Swamps



Riparian Areas

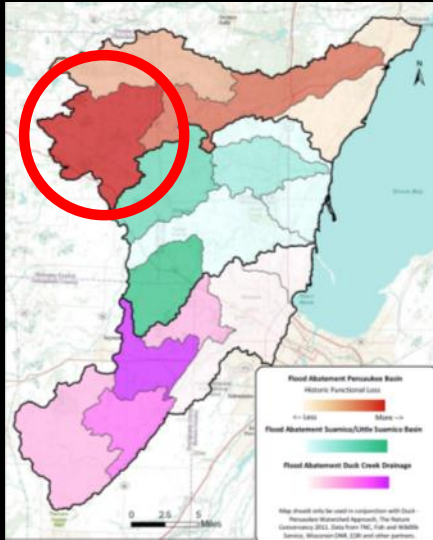


Migratory Shorebirds

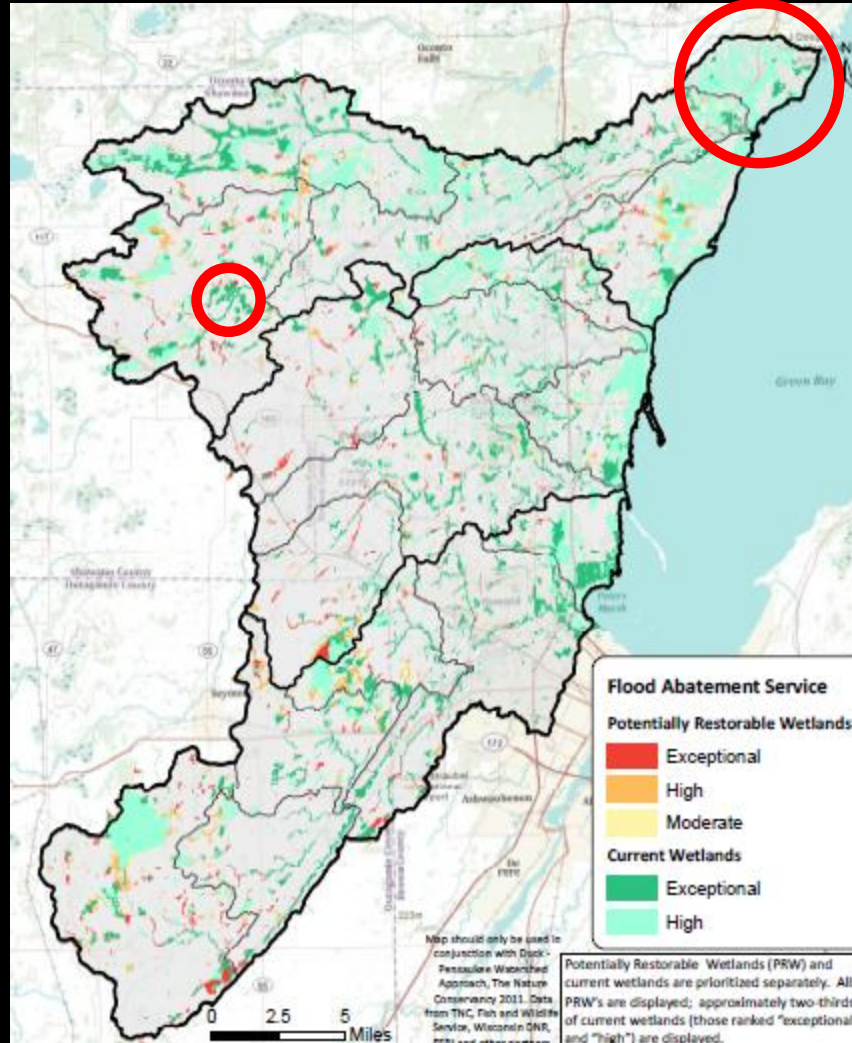


Site Selection

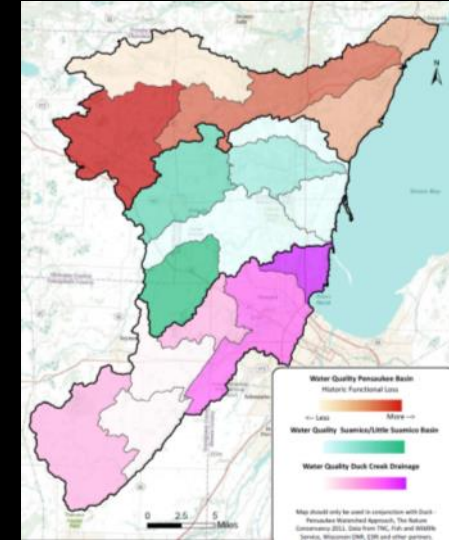
Flood Abatement



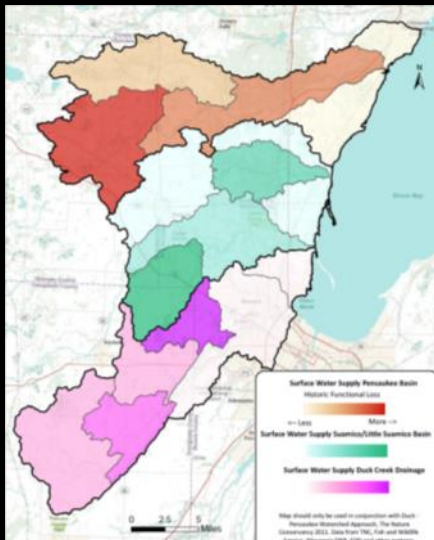
Flood Abatement



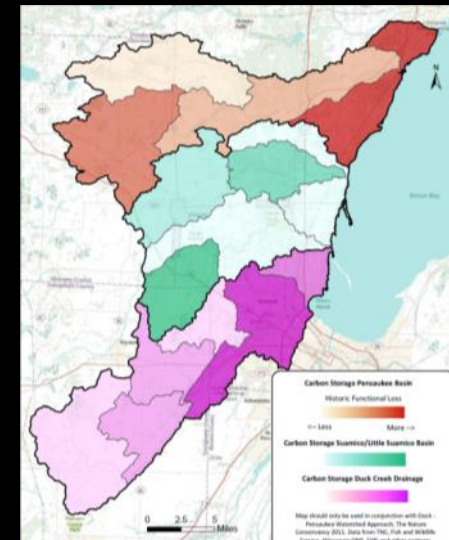
Water Quality



Surface Water Supply

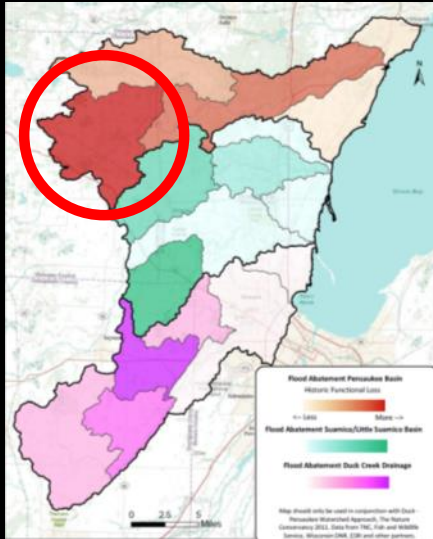


Carbon Storage

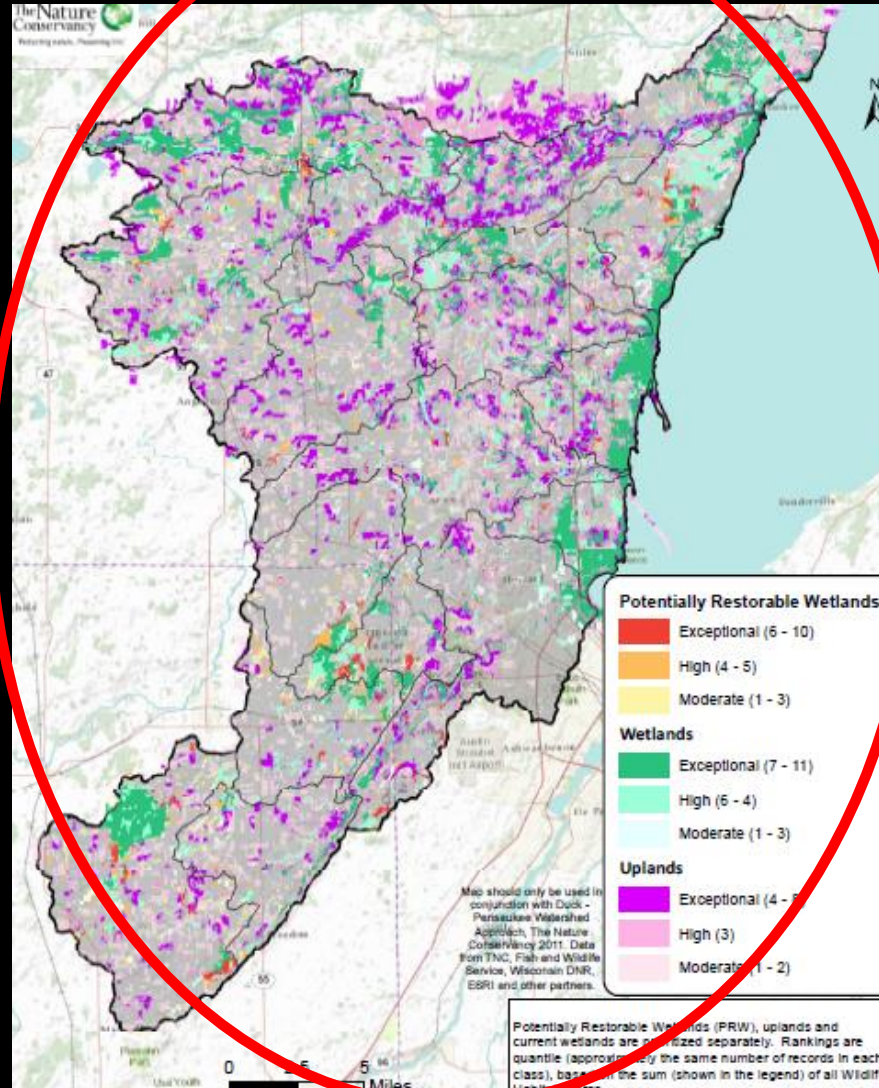


Site Selection

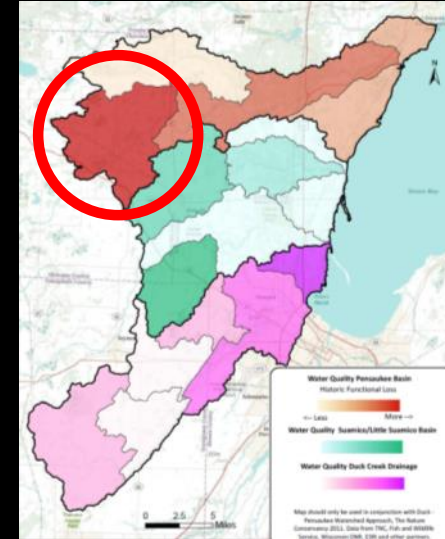
Flood Abatement



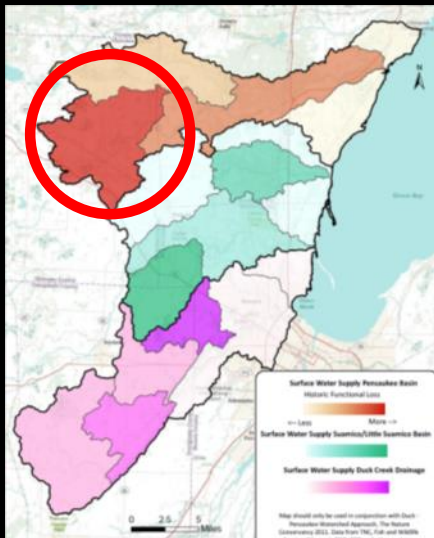
Wildlife



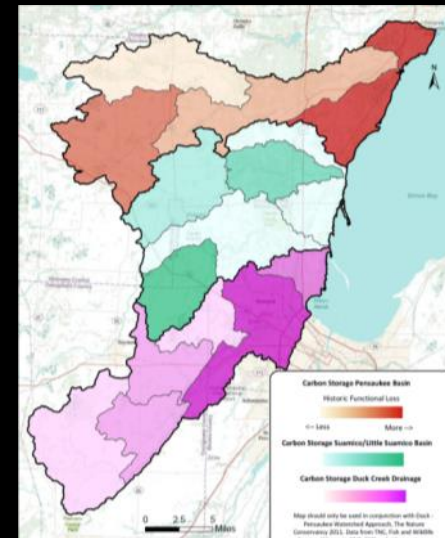
Water Quality



Surface Water Supply



Carbon Storage

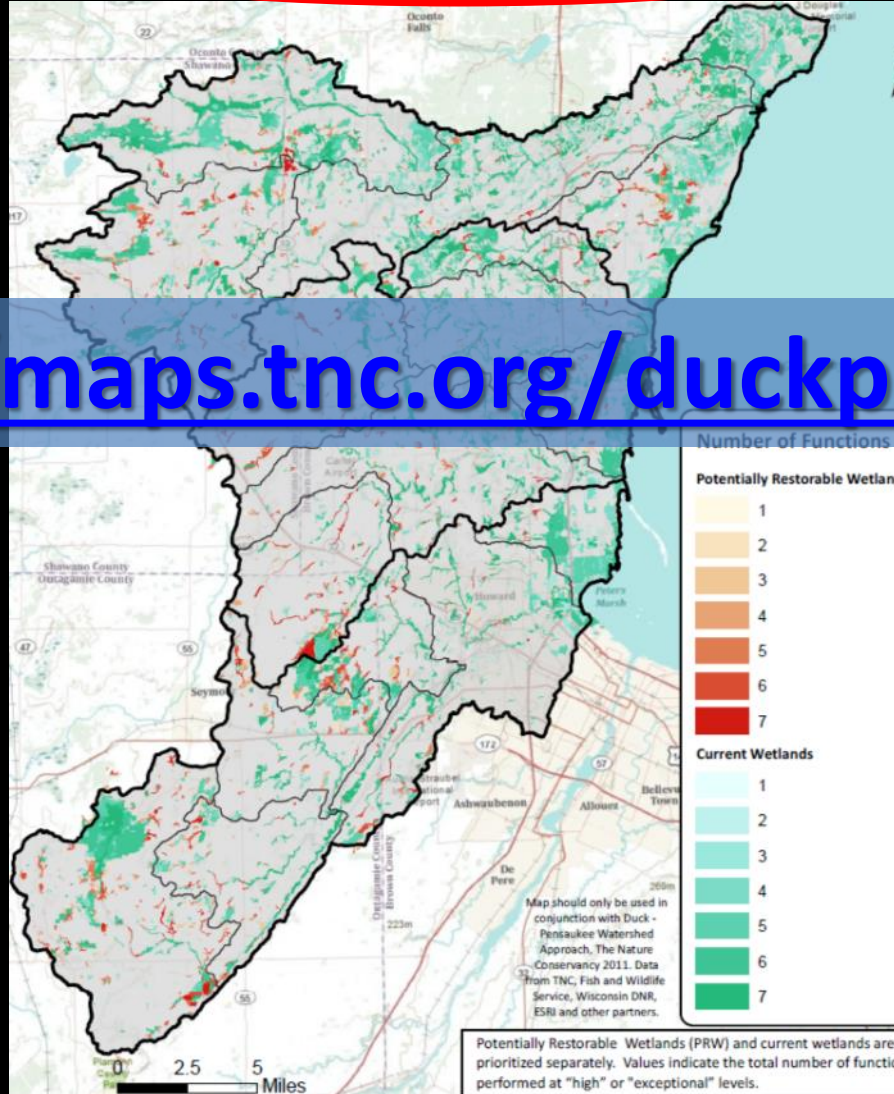


Site Selection

Flood Abatement



All Ecosystem Services

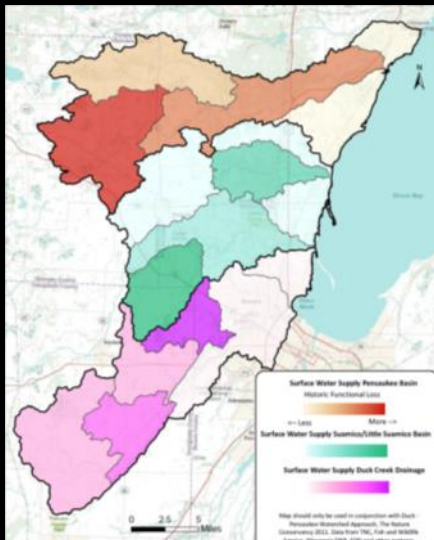


Water Quality

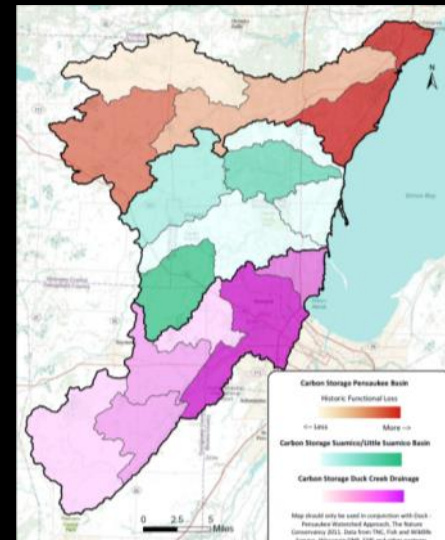


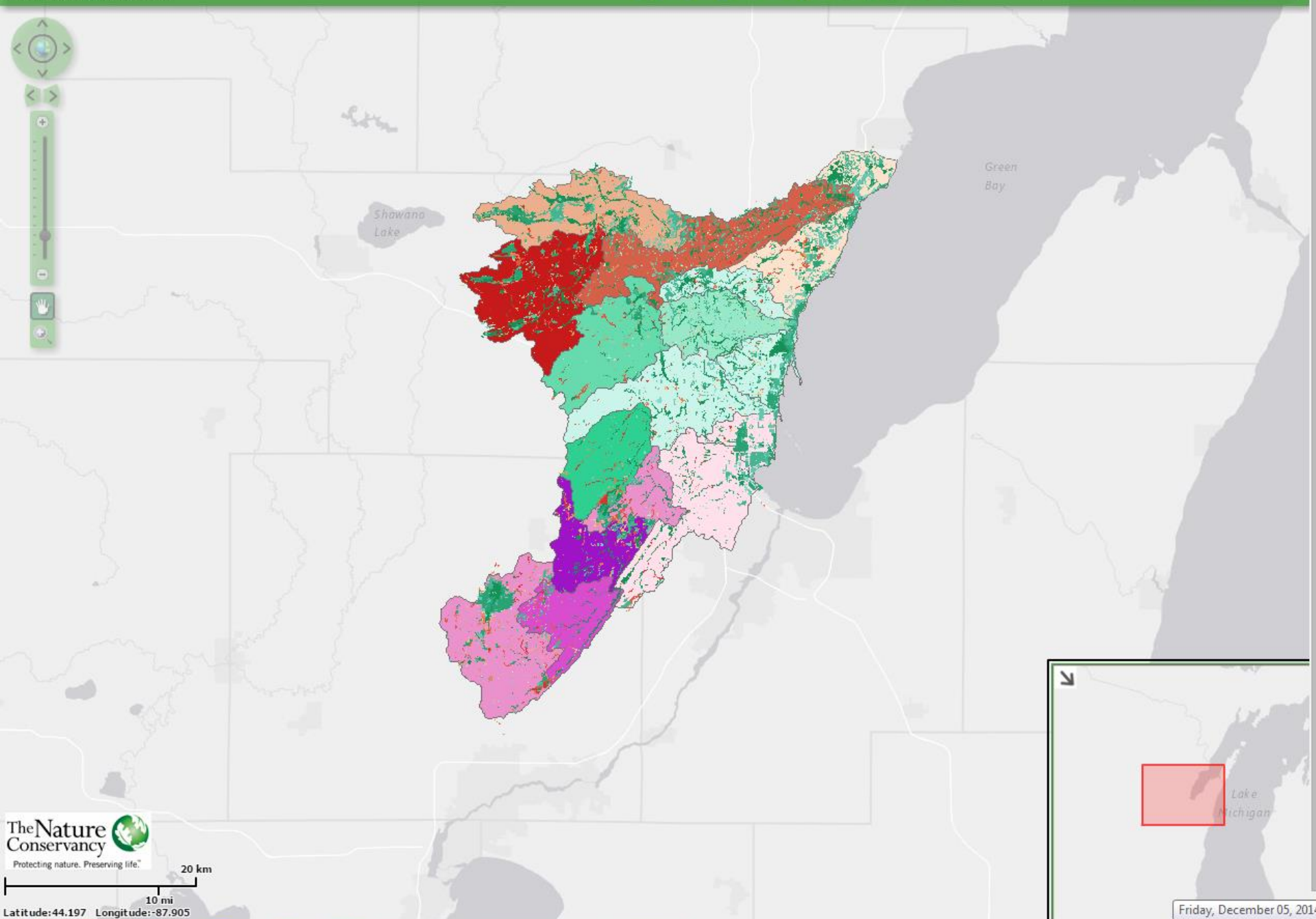
<http://maps.tnc.org/duckpentool/>

Surface Water Supply




Carbon Storage





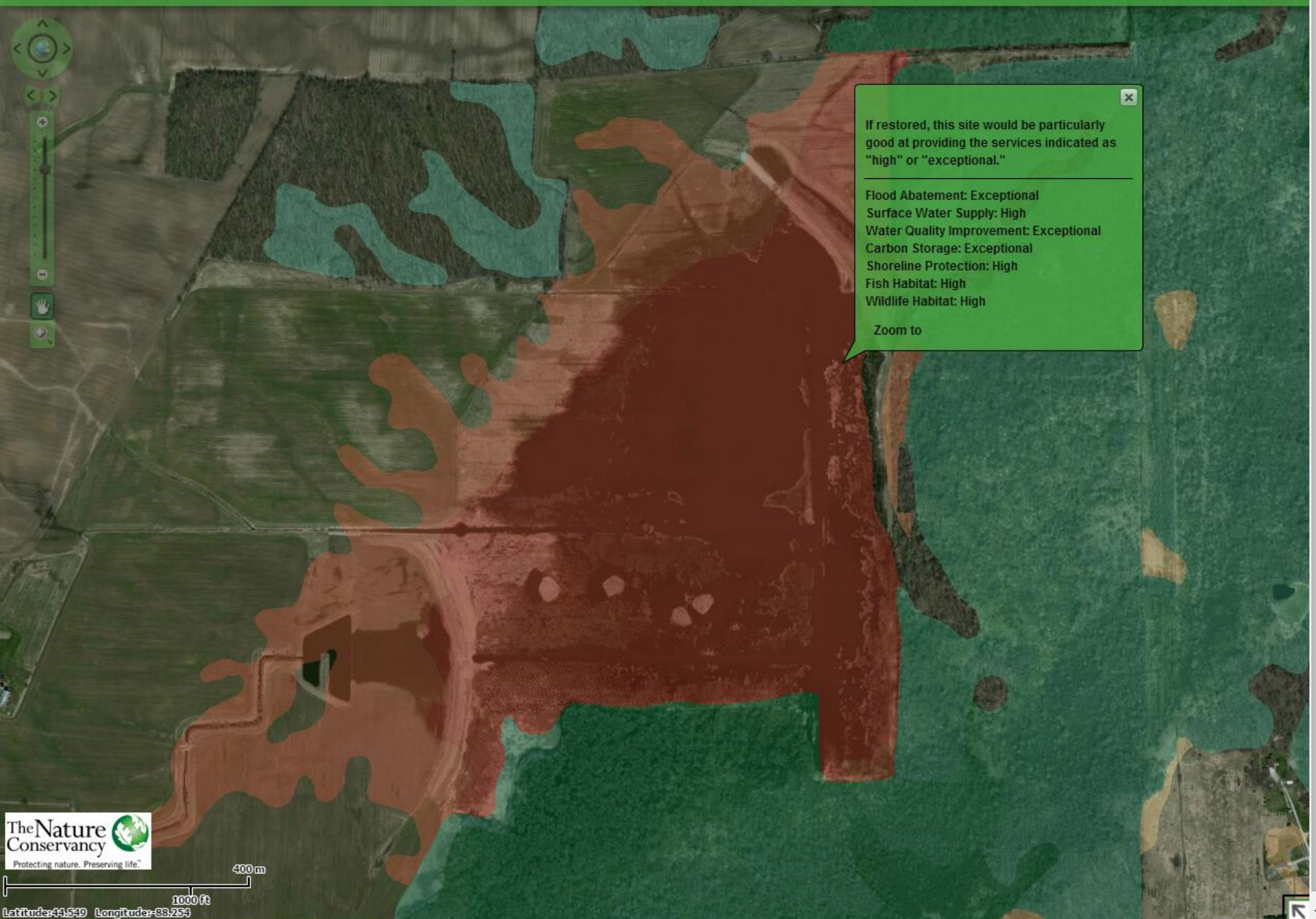





If restored, this site would be particularly good at providing the services indicated as "high" or "exceptional."

Flood Abatement: Exceptional
 Surface Water Supply: High
 Water Quality Improvement: Exceptional
 Carbon Storage: Exceptional
 Shoreline Protection: High
 Fish Habitat: High
 Wildlife Habitat: High

Zoom to





If restored, this site would be particularly good at providing the services indicated as "high" or "exceptional."

Flood Abatement: Exceptional
 Surface Water Supply: High
 Water Quality Improvement: Exceptional
 Carbon Storage: Exceptional
 Shoreline Protection: High
 Fish Habitat: High
 Wildlife Habitat: High

Zoom to

Implementation

