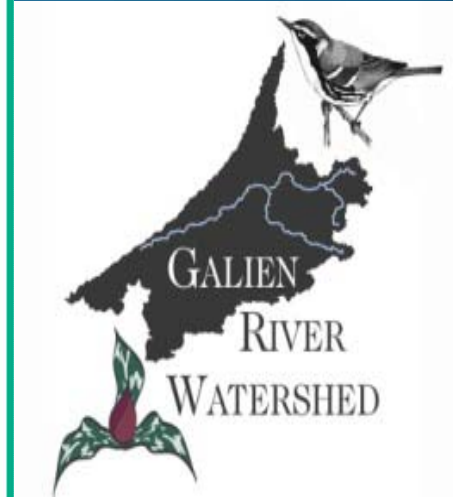
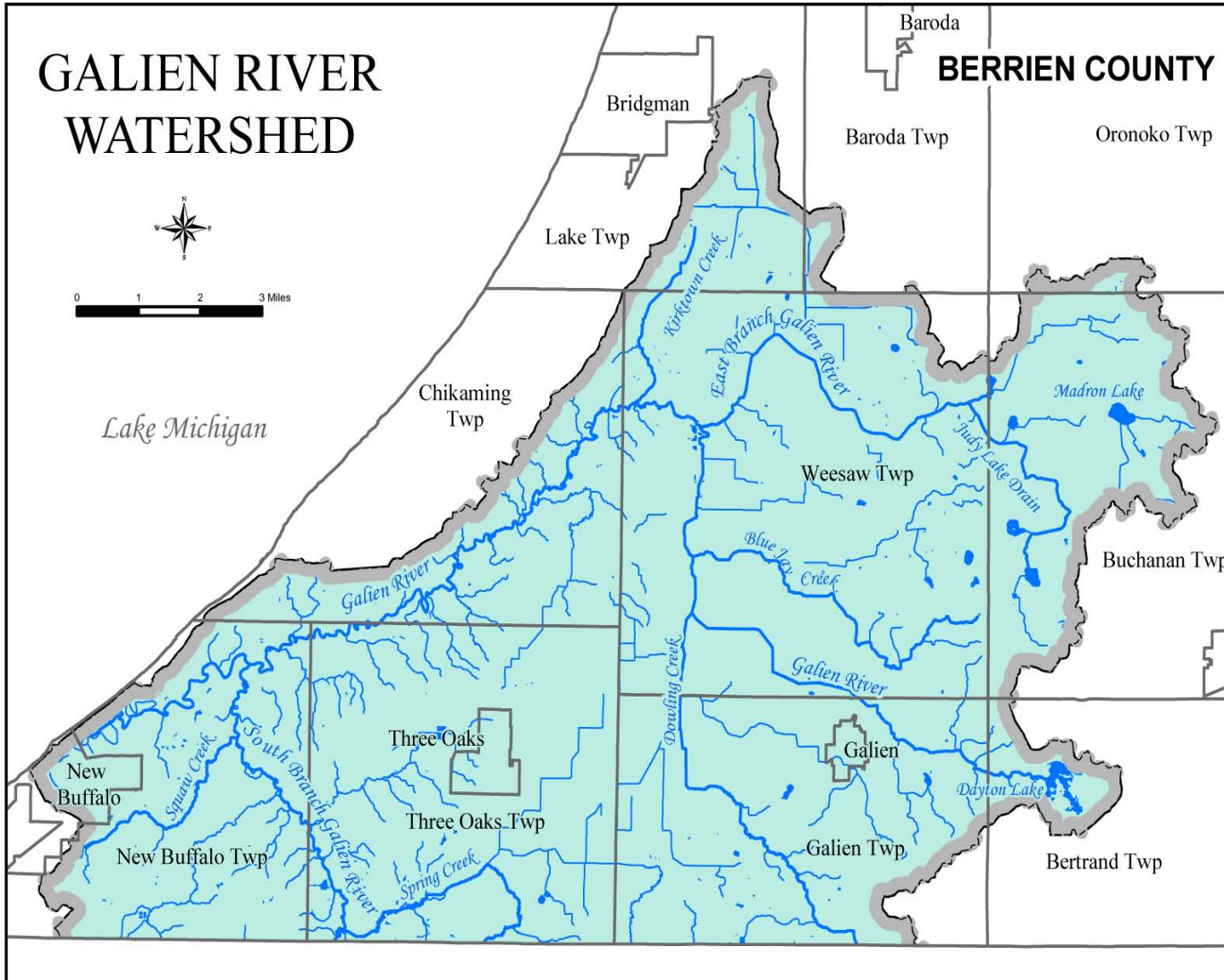


Welcome!

GALIEN RIVER WATERSHED



Workshop Overview

- 6:00 – **Welcome/Introductions** – Marcy Colclough, *Southwest Michigan Planning Commission*
- 6:15 - **The Glorious Galien** – Peg Kohring, *The Conservation Fund*
- 6:30 - **Overview of Mapping Exercise and Concepts** – Marcy Colclough
- 6:45 - **Mapping Exercise** – All
- 7:15 - **Report/Discuss** – All
- 7:30 - **Prioritize Areas**– All
- 7:45 - **Land Protection/Management Options** – Peg Kohring
- 8:00 - **Rain Garden Tour** – Kris Martin, *Southwest Michigan Planning Commission*

Infrastructure?

“the substructure or underlying foundation on which the continuance and growth of a community depends”

- ✓ **Connectivity required**
- ✓ **Management and Funding needed**
- ✓ **Infrastructure is a **necessity** not an amenity**

Key to Healthy People, Watershed and Economy

ECOSYSTEM SERVICES

Water Related

- Flood control
- Water cleansing
- Groundwater recharge (Drinking water)
- Erosion control

Air Related

- Temperature moderation
- Air cleansing

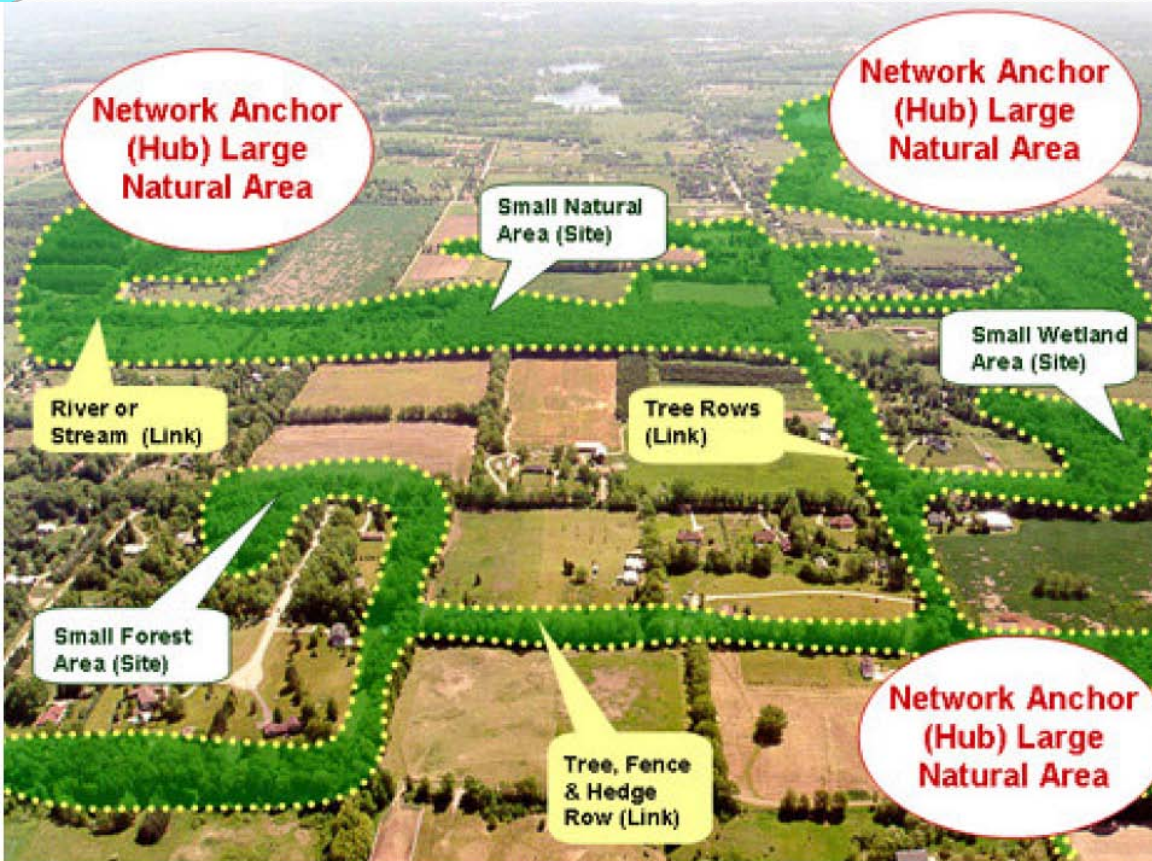
Other

- Nutrient cycling
- Wildlife habitat
- Pollination
- Food Production



Green Infrastructure

An interconnected network of green space and farmland that conserves natural ecosystems and functions and provides associated benefits to humans.



Elements of Green Infrastructure

Water related features - rivers, lakes, wetlands, riparian areas, floodplains, groundwater recharge areas

Land features - forests, prairies, sand dunes, prime farmland

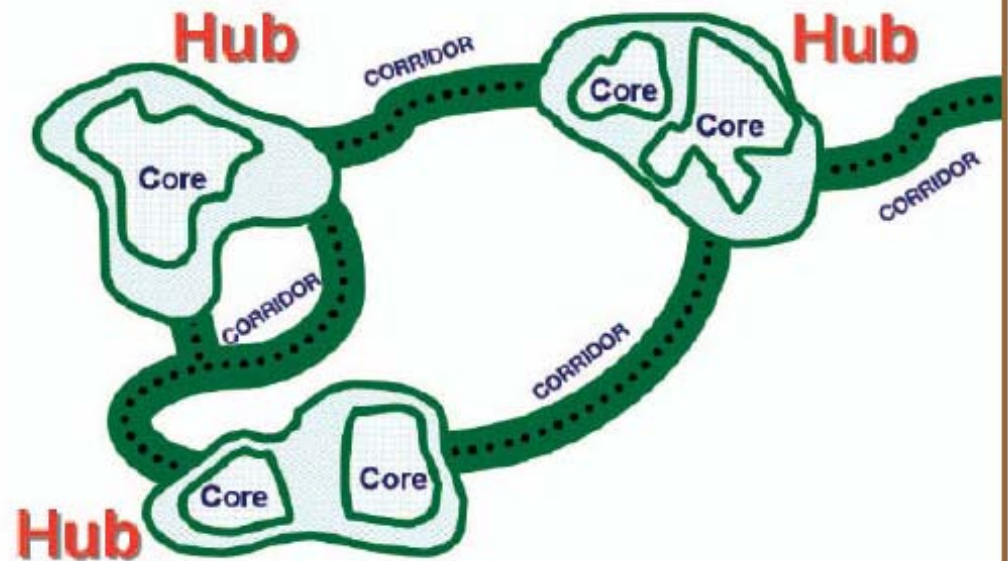
Recreation & Protected lands – parks, beaches, trails



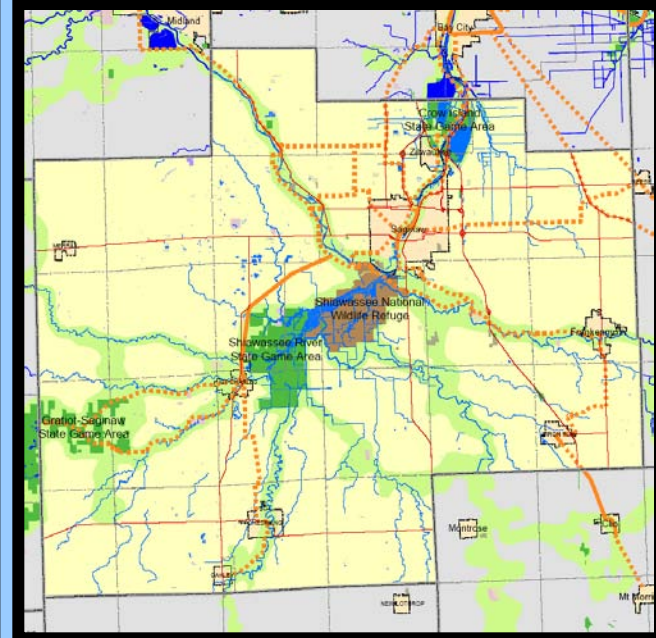
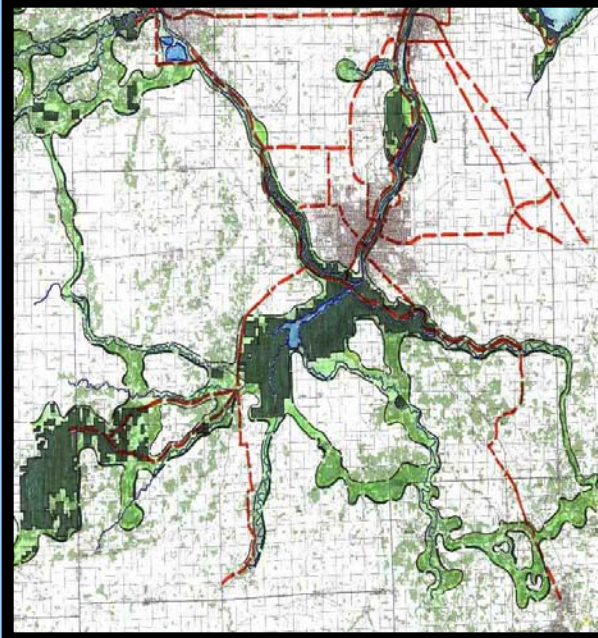
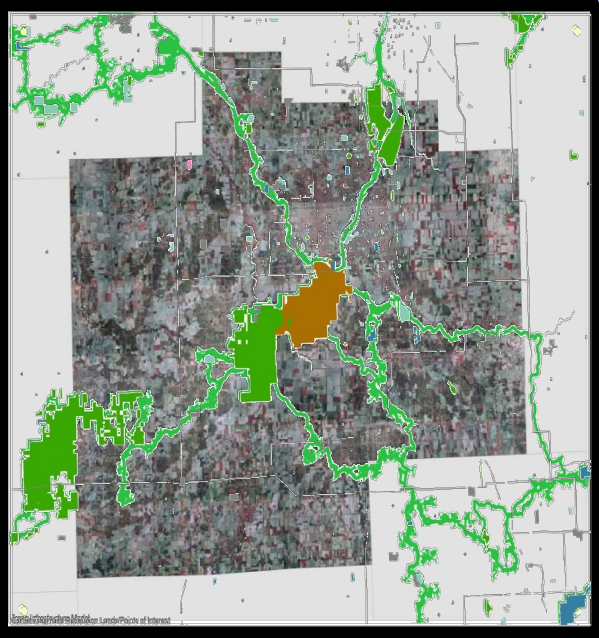
Green Infrastructure

- ✓ Connectivity required
- ✓ Management and Funding needed
- ✓ Infrastructure is a **necessity** not an amenity

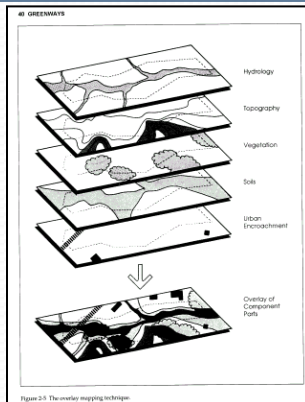
Figure 3: Hubs, cores, and corridors together form the green infrastructure network of ecologically important lands.



Critical Area Map



Inventory



Public Input



Final Map

You and Green Infrastructure

Voluntary Actions of Landowners

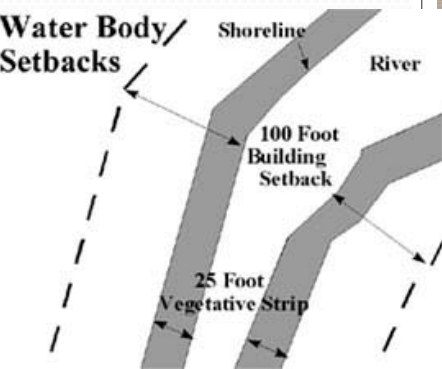
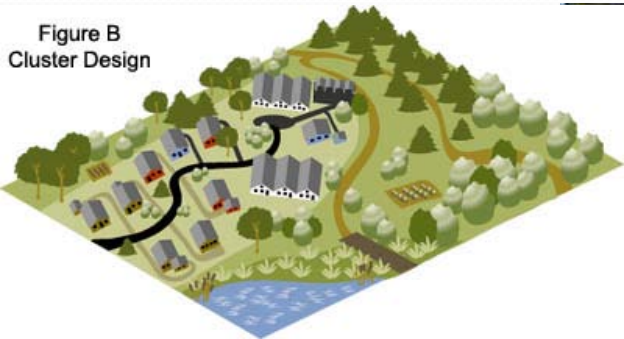
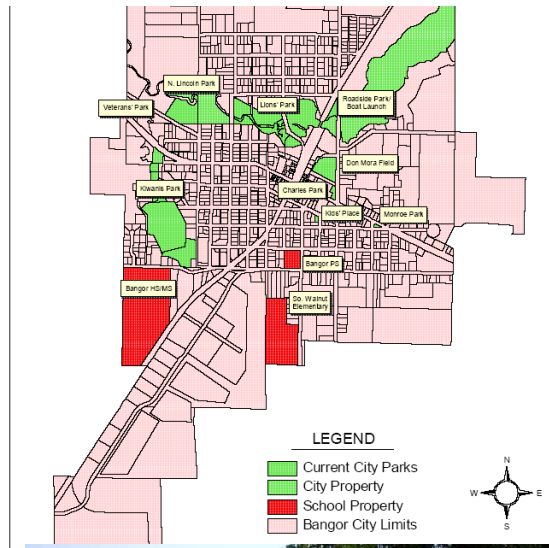
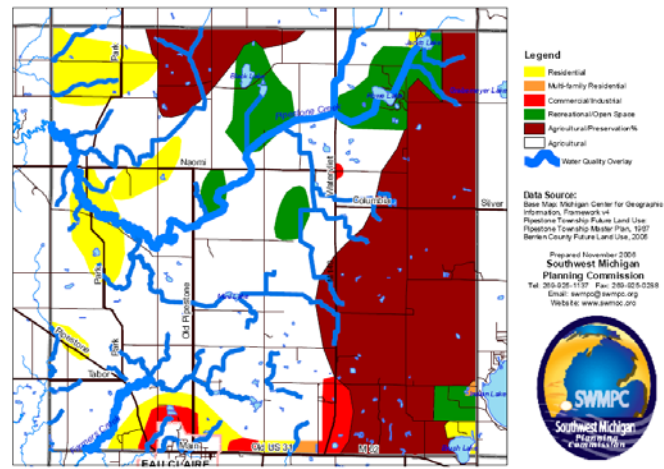
- Protect or restore forested or grassed **buffers** along rivers, creeks, drains
- Develop and implement management plans for **forestry and agricultural activities**
- Plant **native species** and **rain gardens**
- Maintain or restore **wetland** areas
- Implement **Agricultural Best Management Practices** (no till, cover crops, nutrient management, etc)
- Consider **land protection** options (conservation easements, purchase of development rights, etc.)



Your Community and Green Infrastructure

Where & How Land Is Developed

- ✓ Preserve open space, farmland and critical environmental areas
- ✓ Strengthen and direct development towards existing
- ✓ Take advantage of compact building design

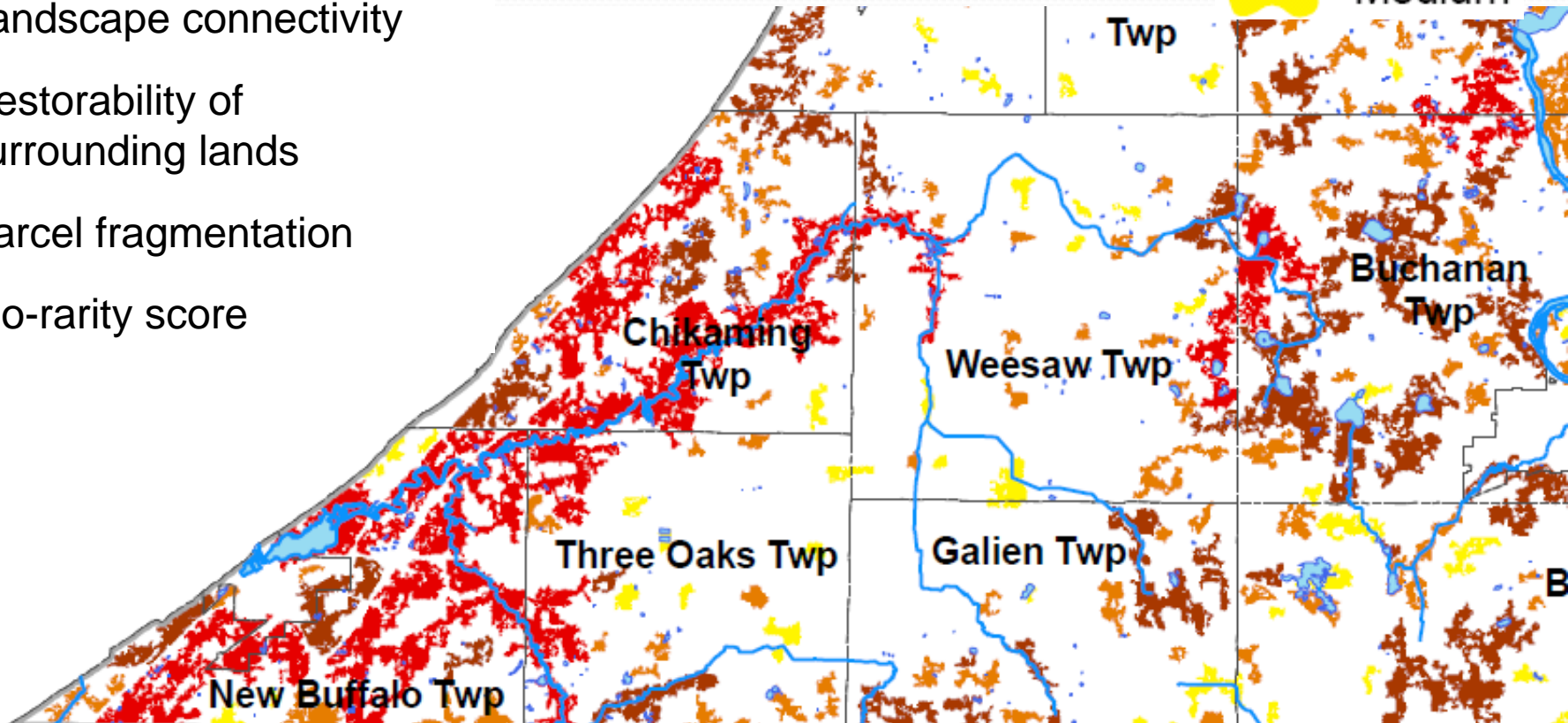


Review Maps





1. **Base map** - Major roads, municipal boundaries, streams, watershed boundary, recreation and protected areas (may not be complete), parcels
2. **Aerial photo with Potential Conservation Areas**
3. **2000 Land Use/Cover and Lost Wetlands**
(forested areas, built up areas, orchards/vineyards)
4. **Prime Farmland**
5. **6. 7. - Wetland Functions** (surface water detention, sediment retention, nutrient transformation)

Potential Conservation Areas

- Total size
- Core area
- Stream corridor presence
- Landscape connectivity
- Restorability of surrounding lands
- Parcel fragmentation
- Bio-rarity score



Legend

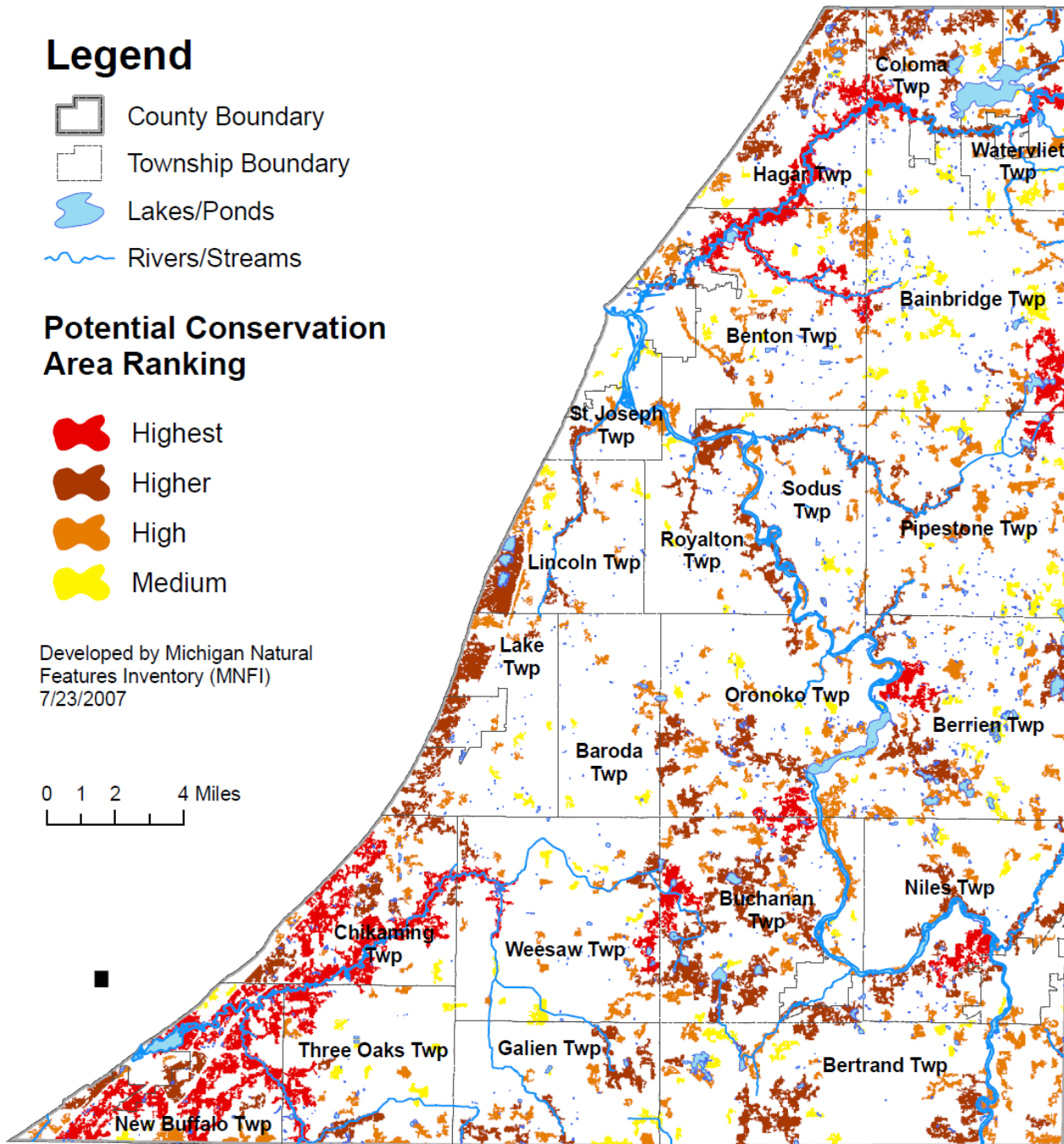

-  County Boundary
-  Township Boundary
-  Lakes/Ponds
-  Rivers/Streams

Potential Conservation Area Ranking

-  Highest
-  Higher
-  High
-  Medium

Developed by Michigan Natural Features Inventory (MNFI)
7/23/2007

0 1 2 4 Miles

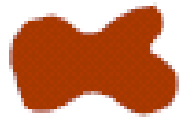


Potential Conservation Areas Southwest Michigan

Legend



Highest



Higher



High



Medium

PCA Ranking

Best

Worst

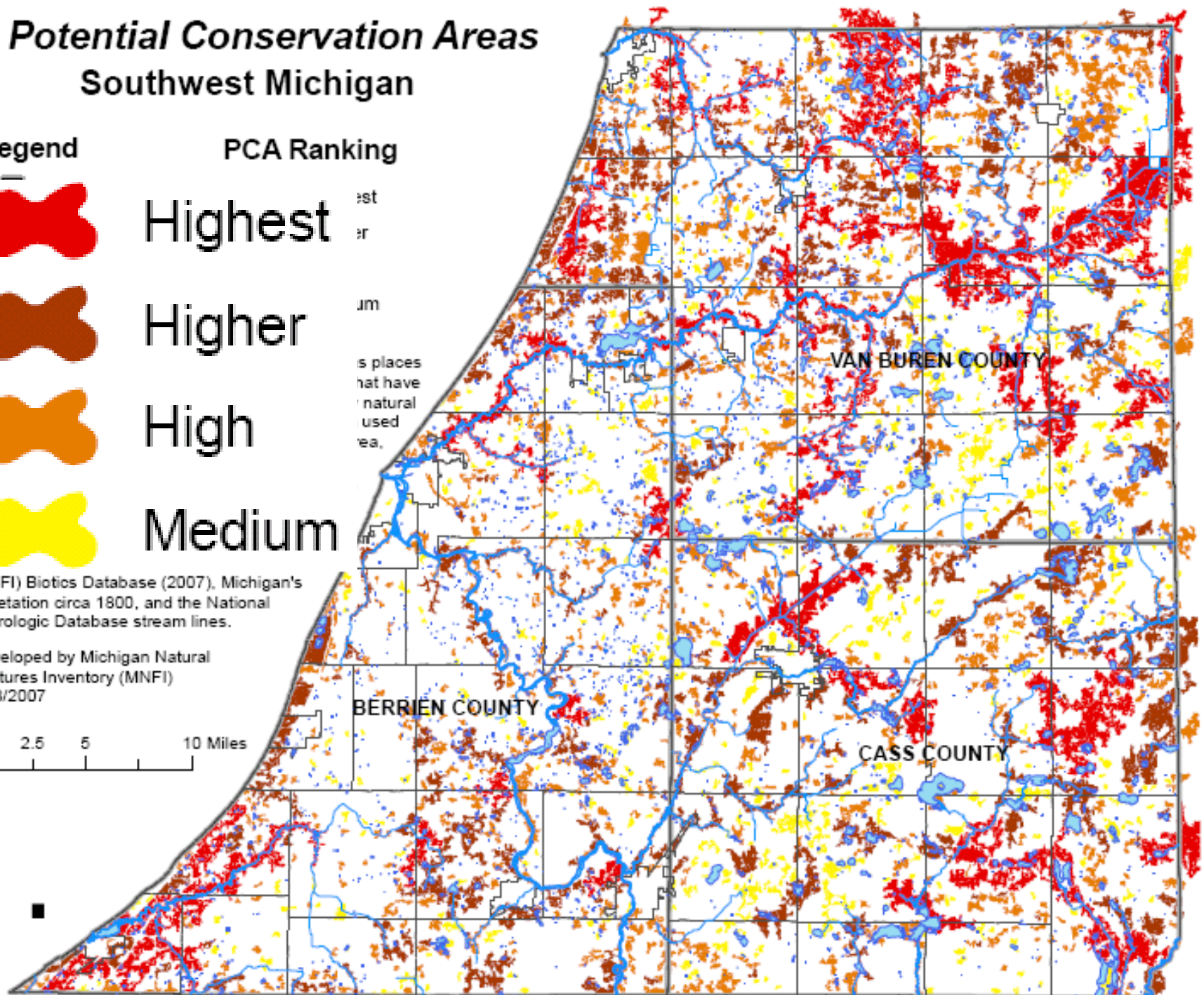
Good

Places that have
not had natural
used
area.

(MNFI) Biotics Database (2007), Michigan's
Vegetation circa 1800, and the National
Hydrologic Database stream lines.

Developed by Michigan Natural
Features Inventory (MNFI)
7/23/2007

0 2.5 5 10 Miles

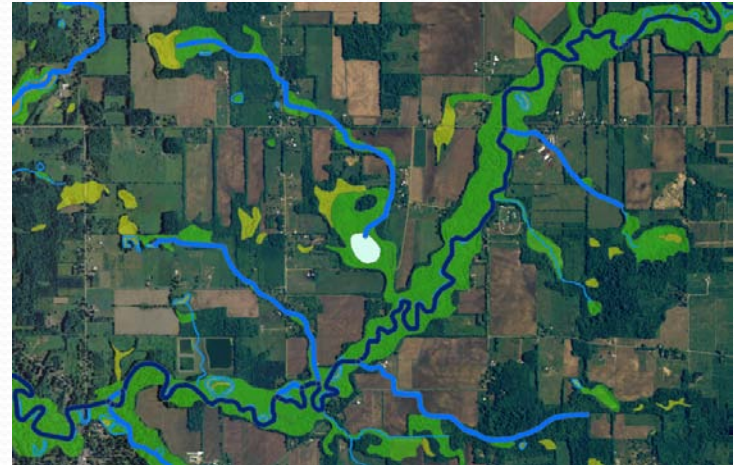


Wetlands...

- Reduce soil erosion on lake and stream banks
- Filter water (sediment, nutrients, etc)
- Absorb water (reduce flooding)
- Recharge groundwater (provide drinking water)
- Provide habitat (fish, birds, amphibians, etc)
- Provide recreation opportunities (hunting, fishing, bird watching, etc)

Wetland Functions Evaluated





- Flood water storage – Reduce Flooding
- Streamflow maintenance – Stable Flows
- Nutrient transformation – Less Vegetation
- Sediment retention – Cleaner Water
- Shoreline stabilization – Less Erosion
- Groundwater recharge – Drinking Water
- Fish and Wildlife Habitat – Fishing, Hunting

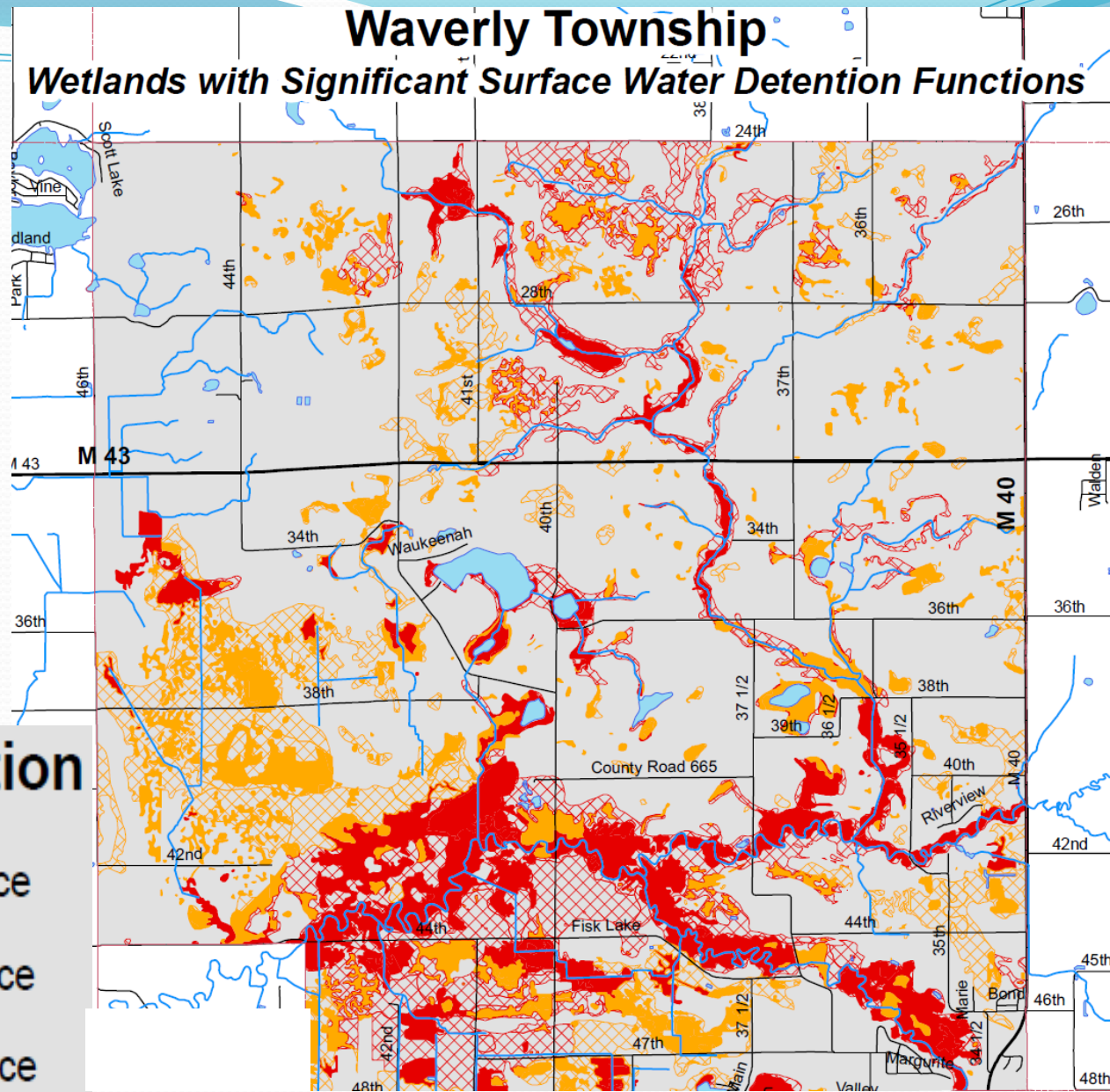


Flood Water Storage

56% loss of
function

Surface Water Detention





-  Historic Med Significance
-  Historic High Significance
-  Existing Med Significance
-  Existing High Significance

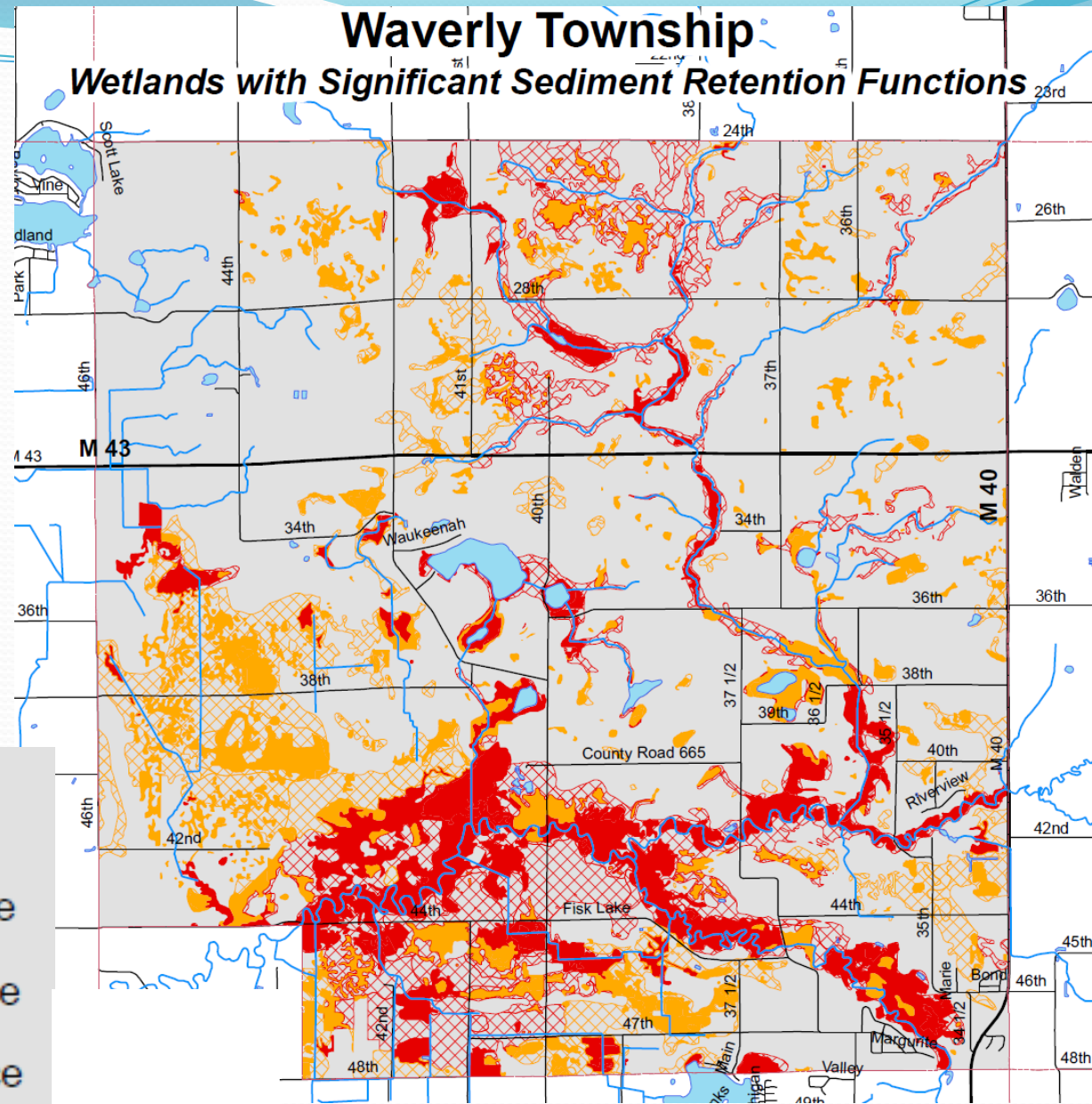


Sediment Retention

55% loss of function

Sediment Retention





-  Historic Med Significance
-  Historic High Significance
-  Existing Med Significance
-  Existing High Significance

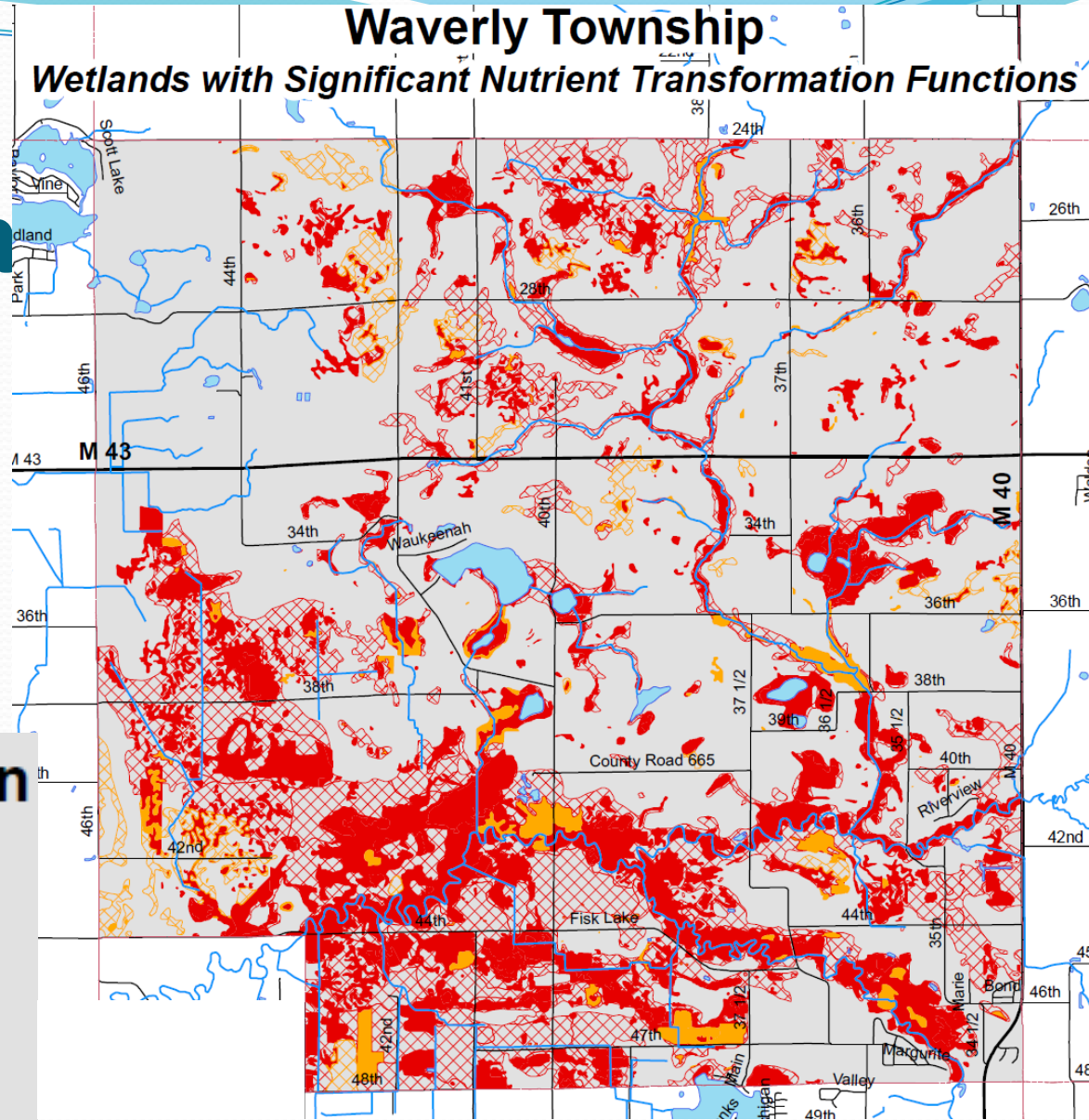


Nutrient Transformation

50% loss of function

Nutrient Transformation

-  Historic Med Significance
-  Historic High Significance
-  Existing Med Significance
-  Existing High Significance



MAPPING

- **REVIEW**
- **COLOR ON THE CLEAR BASE MAP**
 - **GREEN** – existing park/protected area
 - **BLUE** – important natural areas
 - **PURPLE** – important farmland
- **REPORT Results to Group**
- **PRIORITIZE**