

3<sup>rd</sup> Quarter  
September 1, 2015



# Financials

- Cash Balance as of June 30      \$66,866.39
- YTD Expenditures      \$72,382.07
- 4<sup>th</sup> Quarter Expenditures      \$34,214.03
- Contributions as of June 30      \$11,045.00
- Budget transfer
  - Transfer \$100 from Contractual Service to Travel/Mileage.
- Audit
- Cashed in Certificate of Deposit

# Old Business

- **Basin Updates**

# Old Business

- Basin Updates
- St. Joseph River Basin Filter Strip Initiative



*Bank Instability Results in More than Soil Loss*

### It's Not Just the Environment

Land along waterways can be filled with surprises. Unstable bank tops may be hidden by flowing water that has undercut the bank. Weight and vibration of heavy farm equipment might just be the formula for the remaining bank to collapse with the equipment still on it!

Filter strips provide that cushion of safety. Properly chosen plants, provide deep roots to strengthen the structure of the soil. The width of the filter strip insures that equipment will not get close to instability if undercutting occurs in the banks.

Eroded soils deposit in slow-flow areas down stream from their source. These deposits alter stream flow, resulting in upstream flooding or damage to the stream structure. This necessitates more frequent and more severe maintenance. Controlling soils before they enter streams and ditches, helps reduce the frequency and severity of drain maintenance—saving taxpayers money.

### Who To Contact

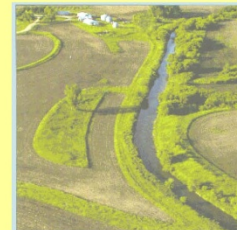
For technical assistance and funding opportunities to develop and maintain a filter strip, contact your local **Natural Resource Conservation Service** and **Soil and Water Conservation District**.

For more information regarding Indiana's Filter Strip Law and tax assessment reductions, contact your **County Surveyor and Drainage Board** and **County Assessor**.



*Filter Strips Protect Wildlife habitat*

### IMPROVING WATER QUALITY THROUGH GOOD CONSERVATION PRACTICES



IC

6-1.1-6.7  
Indiana's  
Filter  
Strip Law

#### ST. JOSEPH RIVER BASIN COMMISSION

227 W. Jefferson Blvd. -- #1120  
South Bend, IN 46601-1830  
P: 574-287-1829  
F: 574-239-4072  
www.sjrbc.com

# Old Business

- Basin Updates
- St. Joseph River Basin Filter Strip Initiative
- **Indiana Watershed Leadership Academy Scholarship**
  - **Due October 1, 2015**



**Watershed Leadership Academy Application**

**1. Contact Information**

Name \*  
 First  Last

Address \*  
 Address Line 1  
 Address Line 2

City  State  Zip Code

Email \*

Phone

**2. Current Position**

Position Title \*  Organization \*

How long have you been in this position? \*

Responsibilities \*

**3. Your Connection to Watershed Management**

Are you involved with a watershed group? \*  
 Yes  No

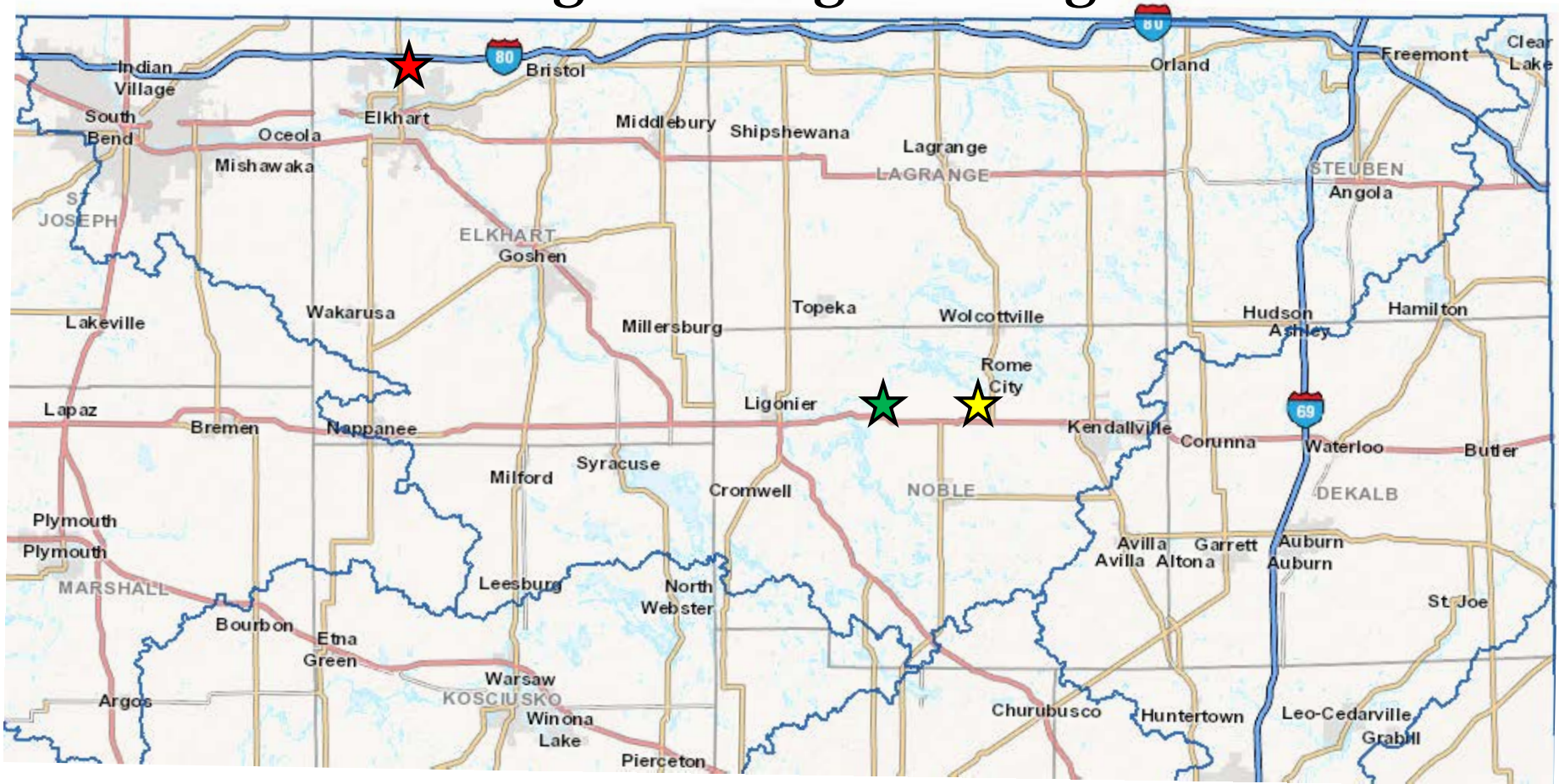
# Old Business

- Basin Updates
- St. Joseph River Basin Filter Strip Initiative
- Regional Conservation Partnership Program
- Indiana Watershed Leadership Academy
- **LARE Grant Awarded – Cobus Creek**

# Old Business

- Basin Updates
- St. Joseph River Basin Filter Strip Initiative
- Regional Conservation Partnership Program
- Indiana Watershed Leadership Academy
- LARE Grant Awarded – Cobus Creek
- **Noble County Lake Gauges Support Letter**

# Gauges Losing Funding



★ Simonton Lake – Elkhart, IN

★ Sylvan Lake - Rome City, IN

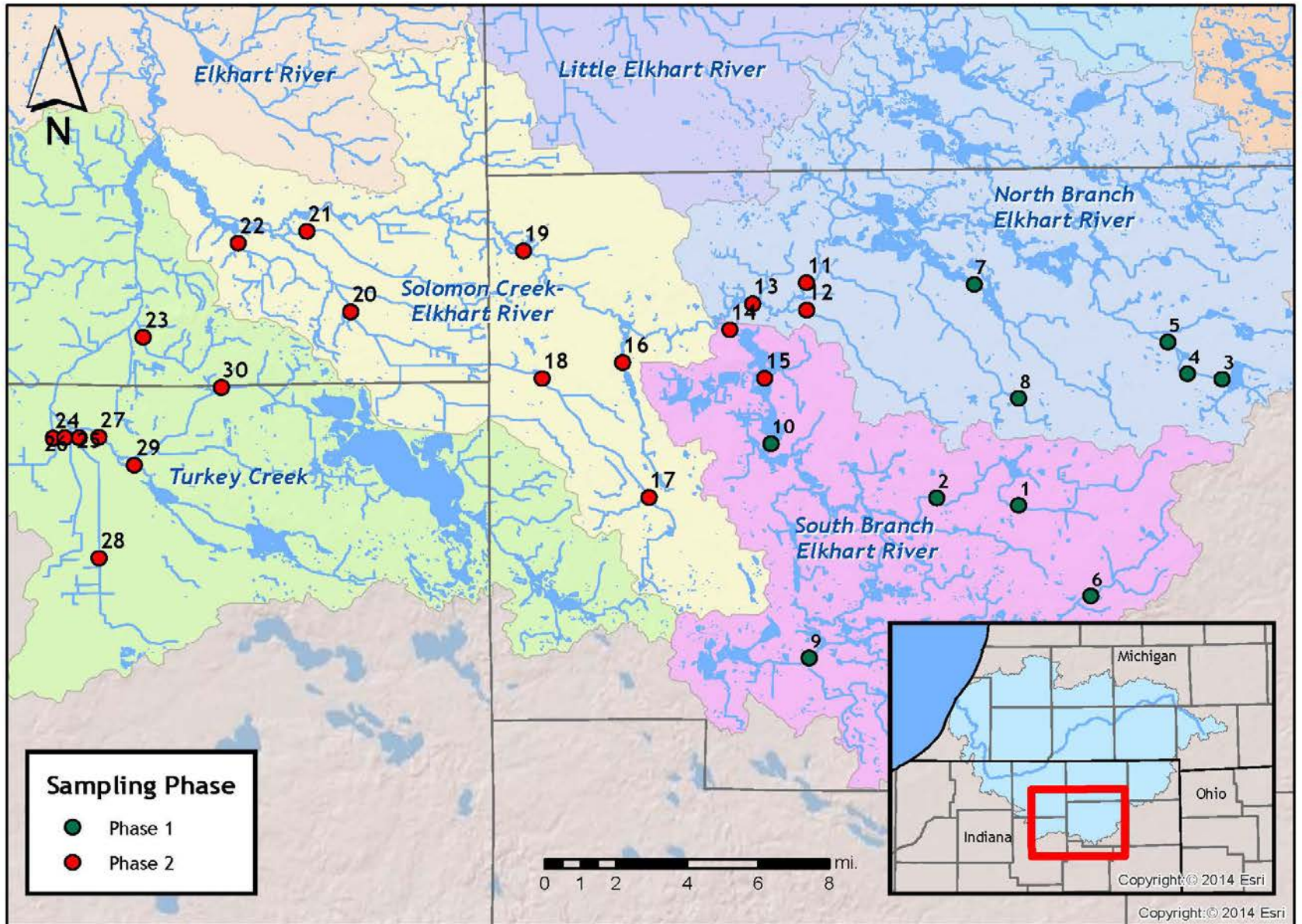
★ Waldron Lake – Cosperville, IN



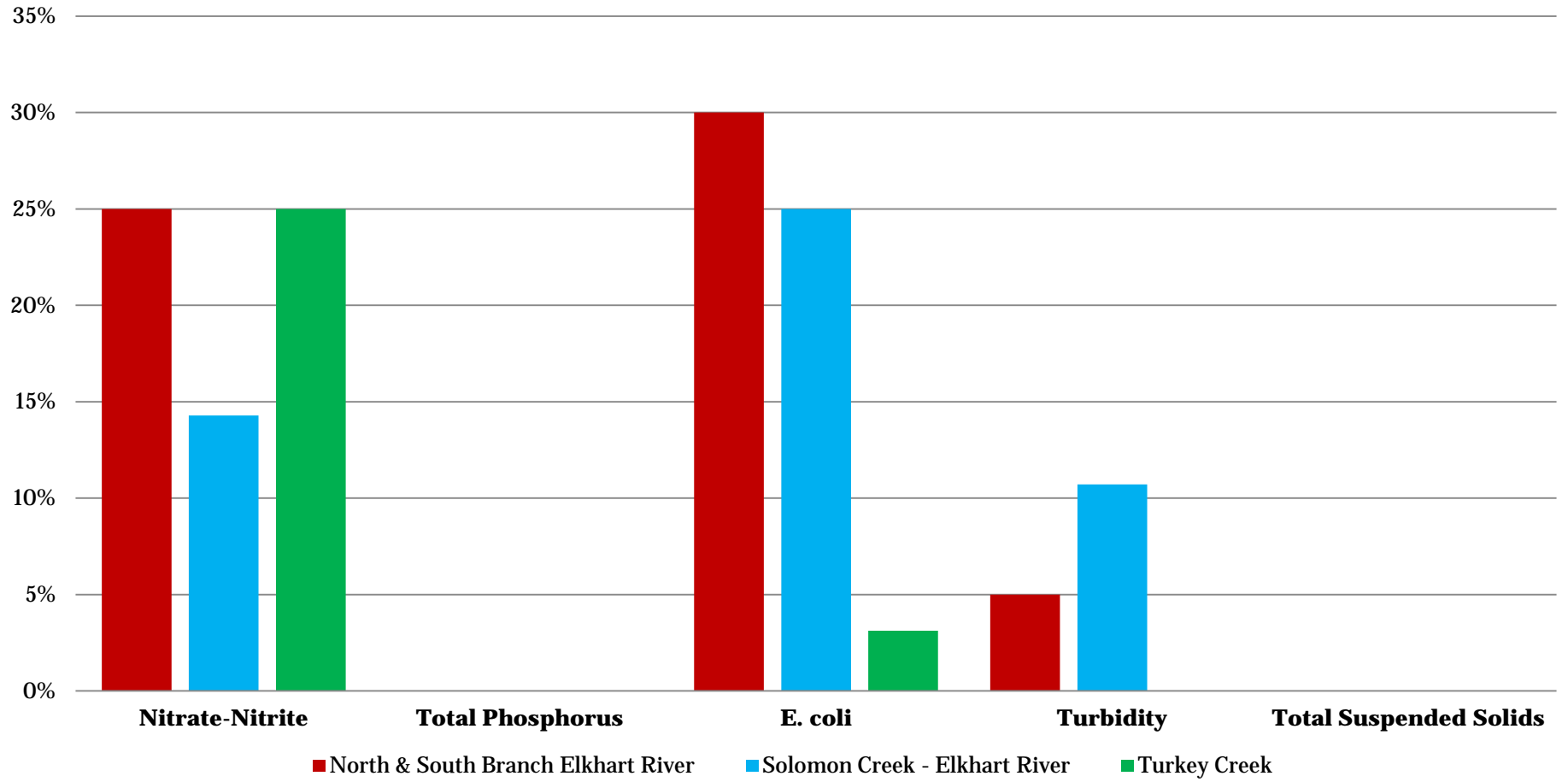
# Old Business

- Basin Updates
- St. Joseph River Basin Filter Strip Initiative
- Regional Conservation Partnership Program
- Indiana Watershed Leadership Academy
- LARE Grant Awarded – Cobus Creek
- Noble County Lake Gauges Support Letter
- **Water Monitoring Program Update**

# SJRBC Sampling Sites

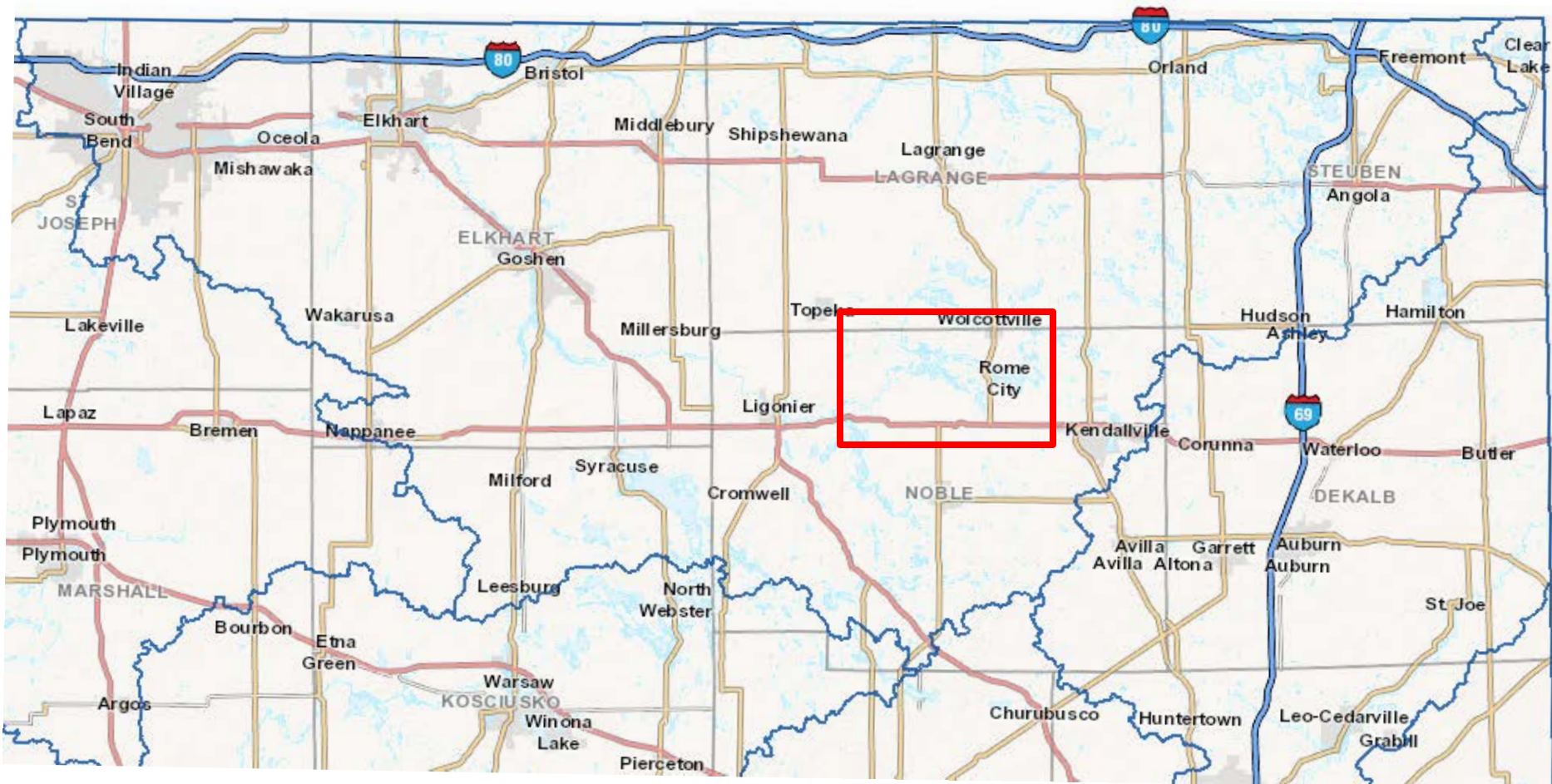


## Phase 2 – July 30, 2015 Percentage of Sample Events Exceeding Target Values by Subwatershed



# New Business

- West Chain of Lakes Flooding – Noble County



# New Business

- West Chain of Lakes Flooding – Noble County
- **Pokagon Band of Potawatomi Wetland Restoration Project**
  - **40 acres of wetland restoration**
  - **Emphasis on forested wetland**

# New Business

- West Chain of Lakes Flooding – Noble County
- Pokagon Band of Potawatomi Wetland Restoration Project
- **Fawn River Cost-share Letter of Support**



Dowagiac River Restoration –  
Pucker Street Dam Removal

# Dowagiac River

- Unique Resource
- Other Restoration Efforts
- Pucker St Dam Removal – Why and How
- Funding
- Partnerships





St. Joseph River Watershed  
Fish Migration Barrier Inventory

Prepared by:

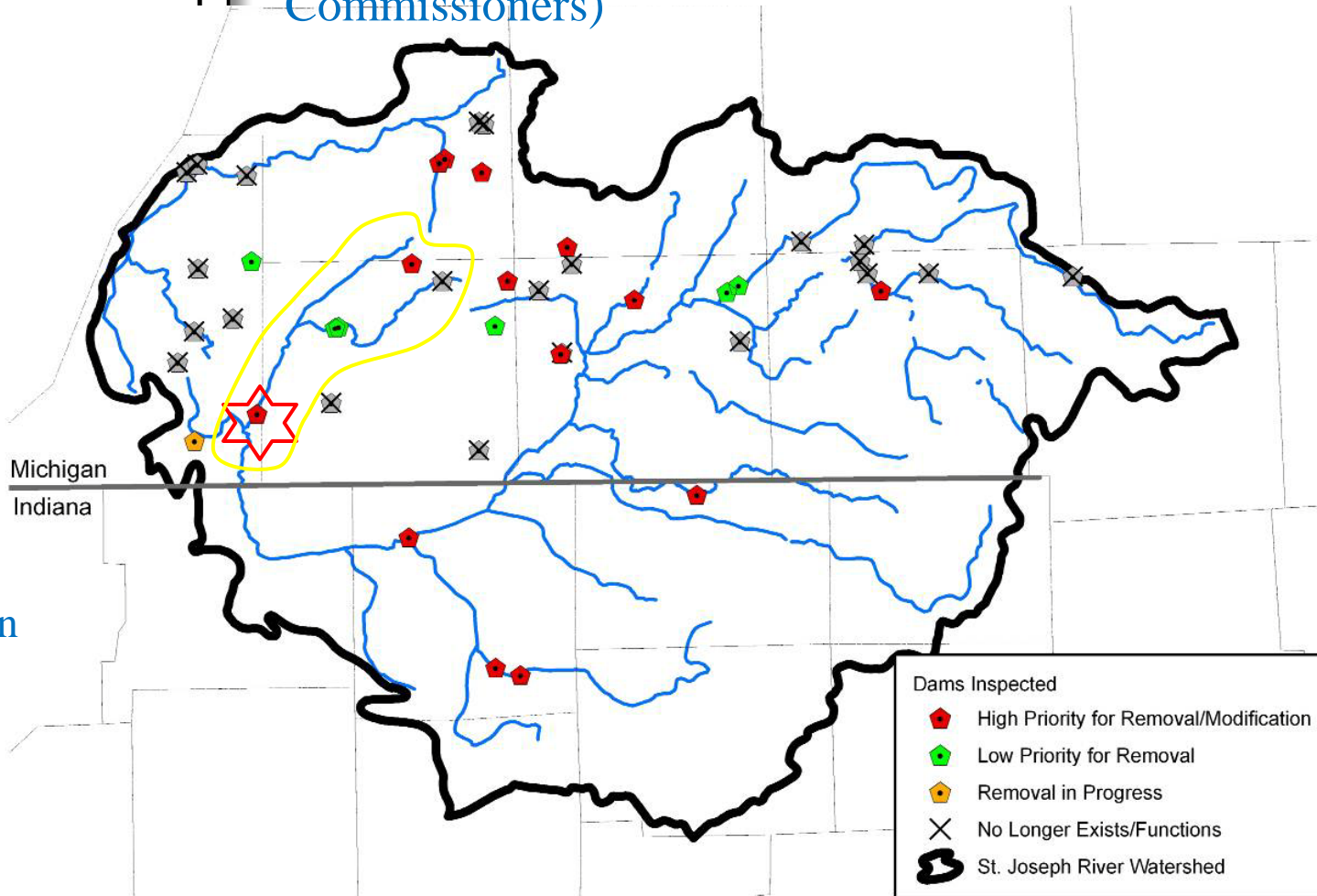


Potawatomi  
Resource Conservati  
& Development Cour  
We Bring People, Places, and Projects To

2011

# Unique Resource Dowagiac River

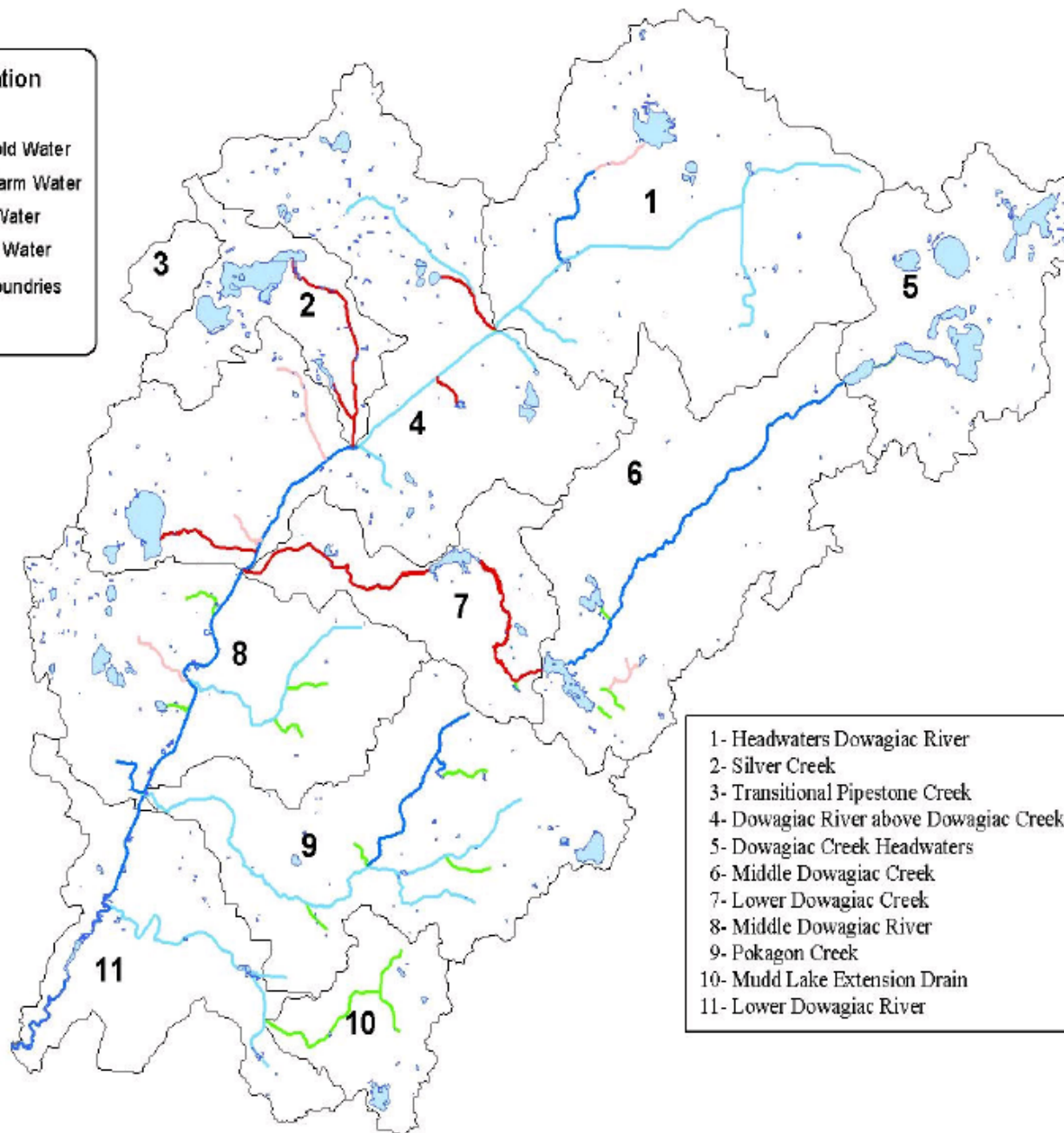
- Good quality cold water trout system
- Extensive river restoration work (MEANDRS, MDNR, Cass County Parks, County Drain Commissioners)



**Pucker Street Dam**  
ranked #1 for removal in  
St. Joseph River  
Watershed

### Fisheries Classification

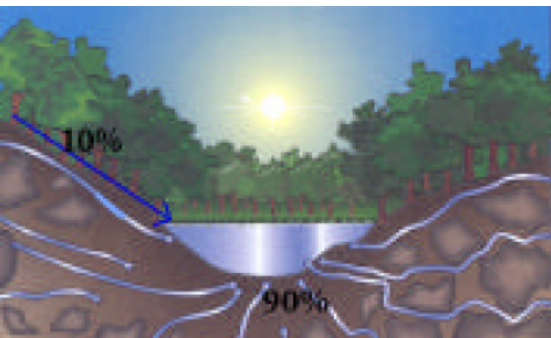
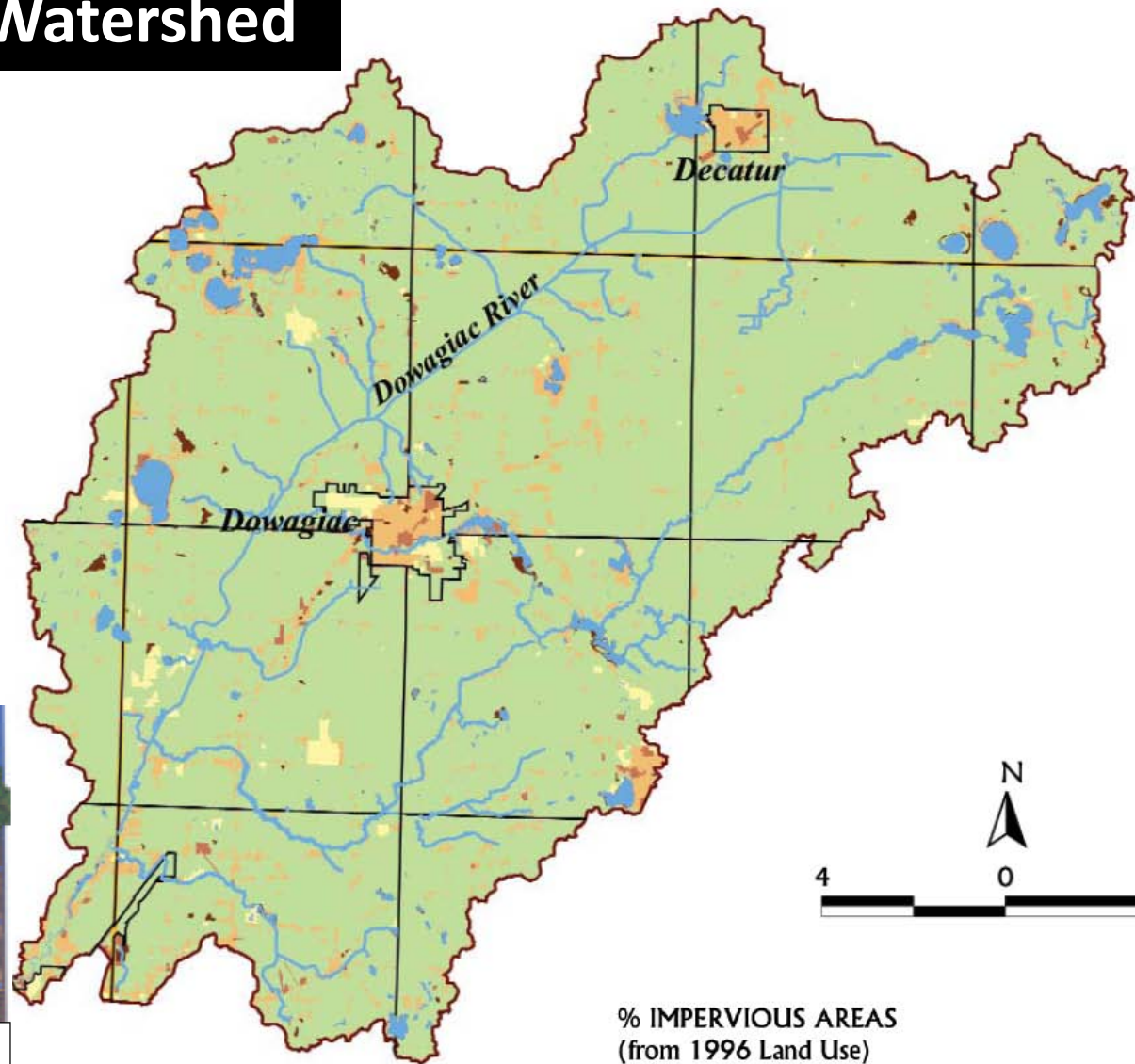
- No Classification
- Second Quality Cold Water
- Second Quality Warm Water
- Top Quality Cold Water
- Top Quality Warm Water
- Sub-Watershed Boundaries
- Lakes



- 1- Headwaters Dowagiac River
- 2- Silver Creek
- 3- Transitional Pipestone Creek
- 4- Dowagiac River above Dowagiac Creek
- 5- Dowagiac Creek Headwaters
- 6- Middle Dowagiac Creek
- 7- Lower Dowagiac Creek
- 8- Middle Dowagiac River
- 9- Pokagon Creek
- 10- Mudd Lake Extension Drain
- 11- Lower Dowagiac River

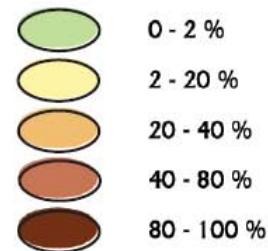
Sub-Watersheds and Major Tributaries of the Dowagiac River Watershed

# Dowagiac River Watershed



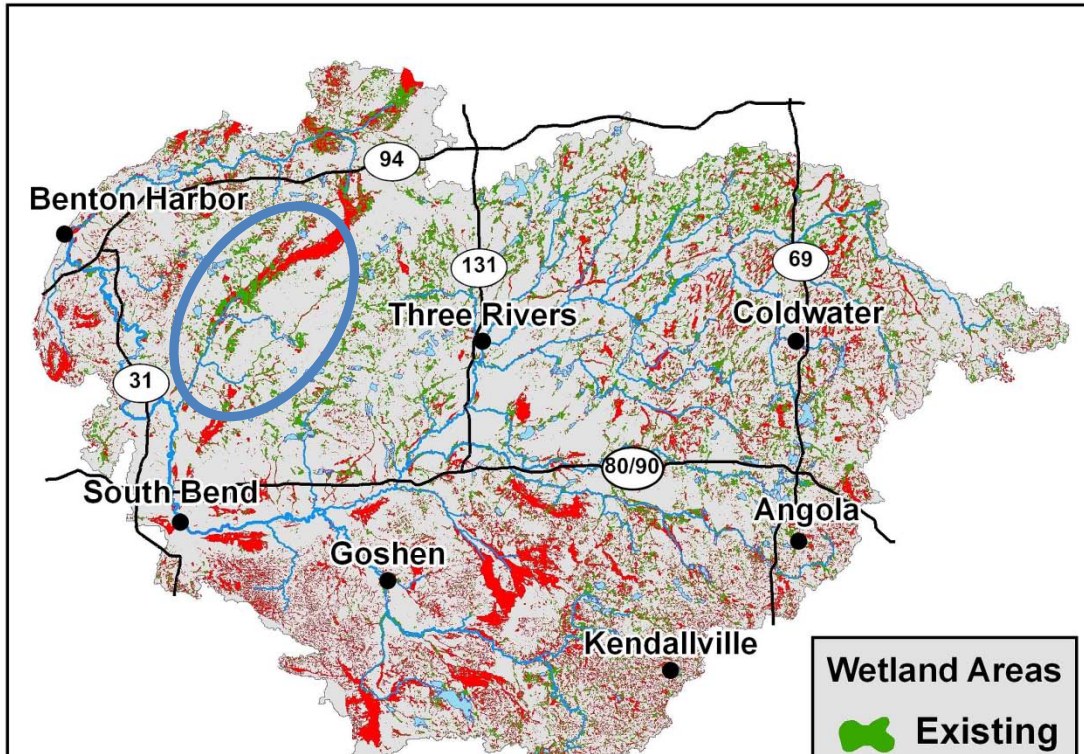
This large groundwater input maintains the cold water temperatures and stable flows in these rivers and streams.

**% IMPERVIOUS AREAS**  
(from 1996 Land Use)



# Unique Resource - Quality of Dowagiac River

- Overall good water quality
- Wetlands – only 39% loss
- Great fishing



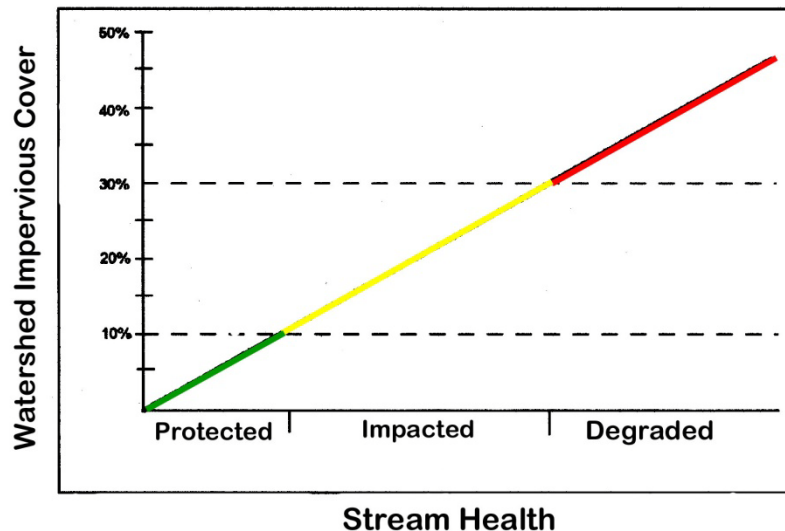
# Unique Resource - Quality of Dowagiac River

- **Biggest Current Threats**

- Agriculture
- Urban development
- Polluted Runoff



Relationship of Impervious Cover to Stream Health



## Success Story in the Dowagiac - Pokagon Band Development

- Minimized impervious areas
- Maximized infiltration & groundwater recharge



### LID Techniques

Narrow/porous roads

No curb and gutter

Porous trail surfaces

Efficient floor plans

Native plants/ grasses

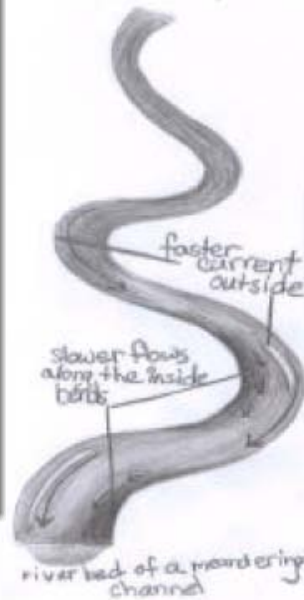
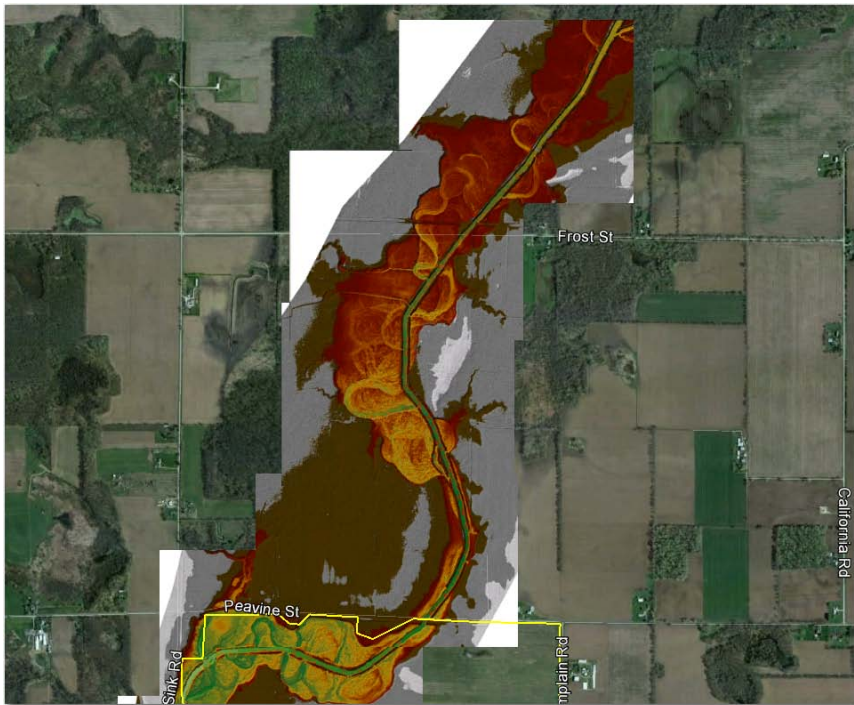
Bioswales/rain gardens

Preserved open space



# Unique Resource - Quality of Dowagiac River

- **Historic Impacts**
  - Channelization & Pucker St Dam

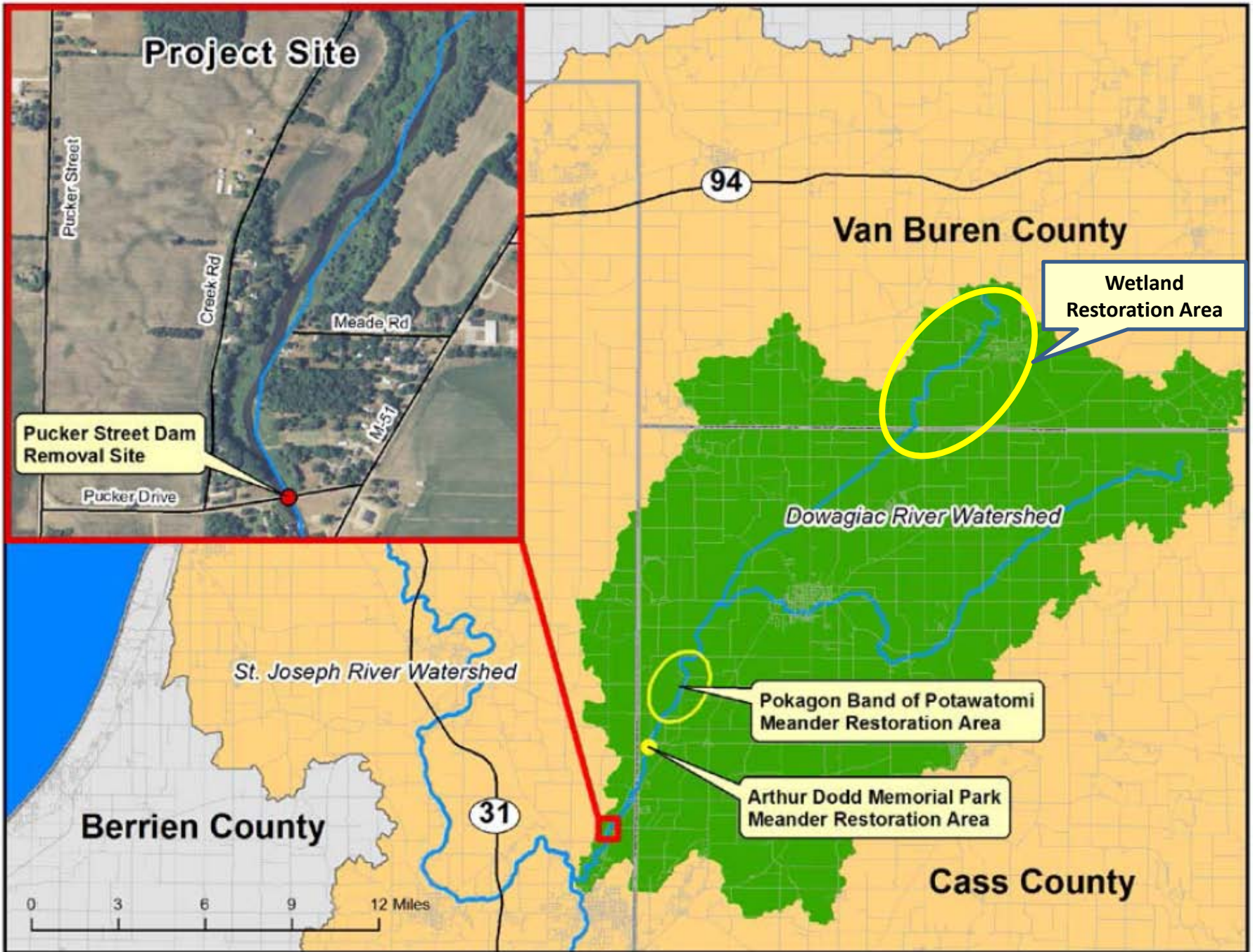


# Restoration of Dowagiac River – Meanders Restoration



**Dodd Park, Cass County**

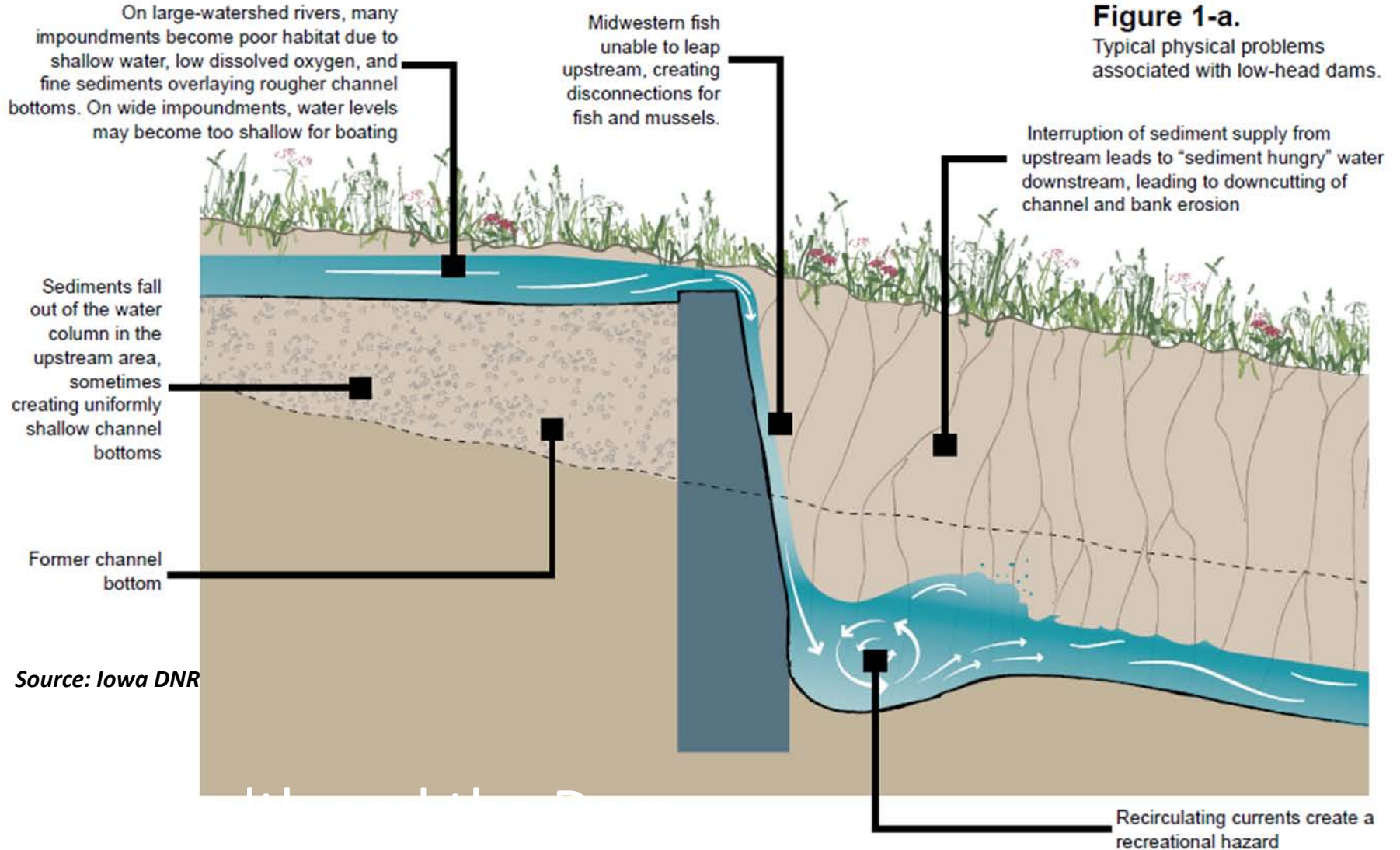






**Figure 1: The Pucker Street Dam was built on the high gradient section of the Dowagiac (highlighted) as it flows down into the St Joseph River valley - a unique habitat in southern MI.**

# Impacts of the Dam



# Restoration of Dowagiac River – Dam Removal



- Removal 60% less than Repair (average)
- Liability/Safety Issues
- Restore Connectivity for migrating fish and other organisms
- Improve Water Quality  
(dissolved oxygen, sediment transport, etc)
- Recreational Economics:
  - Fishing - Anglers spend \$38B annually
  - Boating - \$100M annually on kayaking/canoeing

# Restoration of Dowagiac River – Dam Removal Process

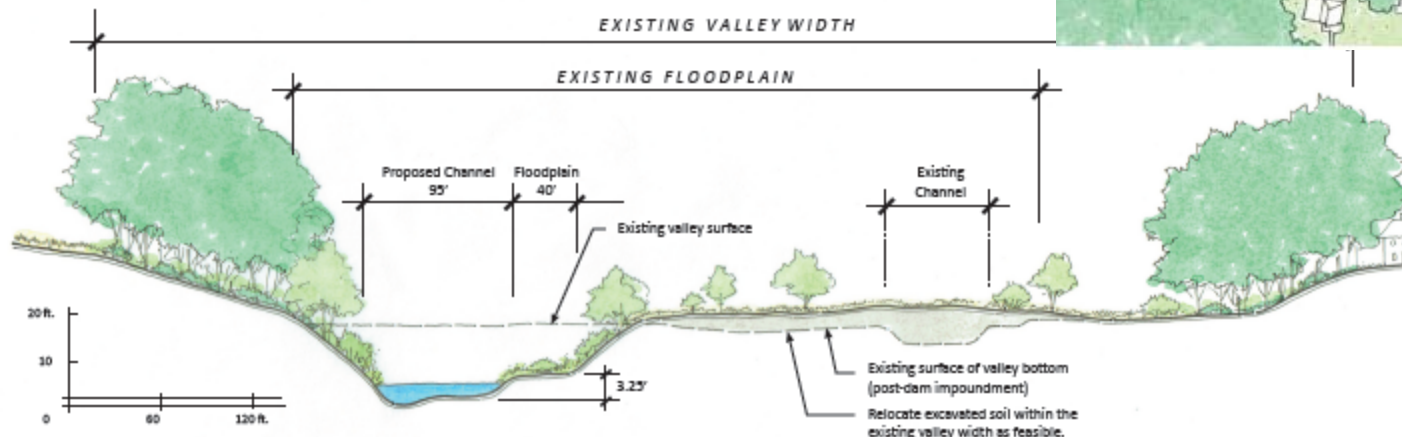
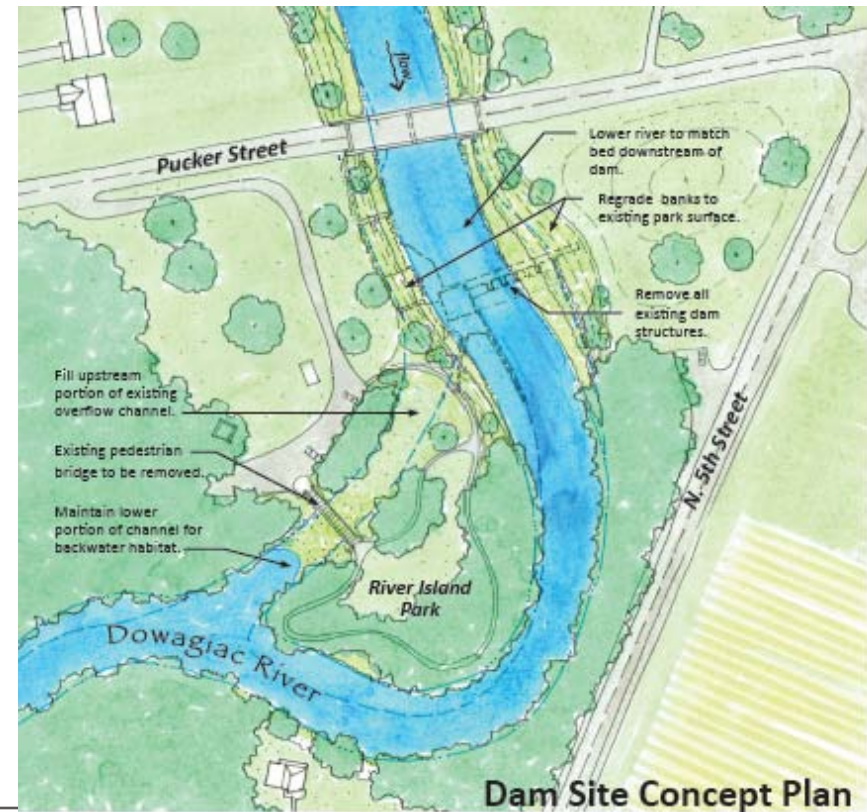
Coordinate with Partners

- **Data Collection**
  - sediment testing
  - depth of refusal survey
  - hazardous material survey
  - wetland/floodplain delineation
- **Develop concepts (involve public) and Select Final Design**
  - Sediment management
- **Apply for permits**
- **Complete Environmental Assessment**
- **Develop bid documents**



# Dam Removal and River Restoration

- Dredge sediment, sculpt river channel
  - Active vs. passive restoration
  - Utilize pre-dam channel
  - Construct floodplain
- Demolish dam
- Add structure to river channel
- Plant riparian areas
- Ensure access for fishing and boating



**Floodplain Cross-section B-B (looking downstream)**

# Dowagiac River Restoration

## Dam Removal Costs and Funding



- City of Niles – utility surcharge (\$1.5 -2 million)
- 2013 MDNR- Aquatic Habitat -\$200,000
- FY 2014 US Fish & Wildlife Service - Fish Passage - \$200,000
- 2014 National Fish & Wildlife Foundation - Sustain our Great Lakes - \$250,000
- 2014 Great Lakes Fishery Trust - \$200,000
- 2014 MDNR- Dam Management – \$90,750
- 2014 Great Lakes Basin Fish Habitat Partnership - \$100,000
- FY 2015 US Fish & Wildlife Service - Fish Passage - \$200,000

# Partners for Dowagiac River Restoration

- Niles City
- Southwest Michigan Planning Commission
- Interfluve
- Wightman & Associates
- Michigan Department of Natural Resources
- Michigan Department of Environmental Quality
- US Fish & Wildlife
- Cass, Berrien and Van Buren County Drain Commissioners
- Cass/Berrien NRCS
- Berrien Conservation District
- Cass County Parks Department
- Dowagiac River Keepers
- Partnership for Meeting the Ecological and Agricultural Needs of the Dowagiac River System (MEANDRS)
- St Joe River Valley Fly Fishers
- Friends of the St. Joe River (FotSJR)
- Potawatomi RC&D
- Southwest Michigan Economic Growth Alliance
- Pokagon Band of Potawatomi Indians





<http://www.swmpc.org/puckerstdam.asp>



3<sup>rd</sup> Quarter  
September 1<sup>st</sup>, 2015



Next Meeting  
December 1<sup>st</sup>, 2015

