

Wetlands Work For Us

*Keeping Water Clean,
Protecting Our Communities*

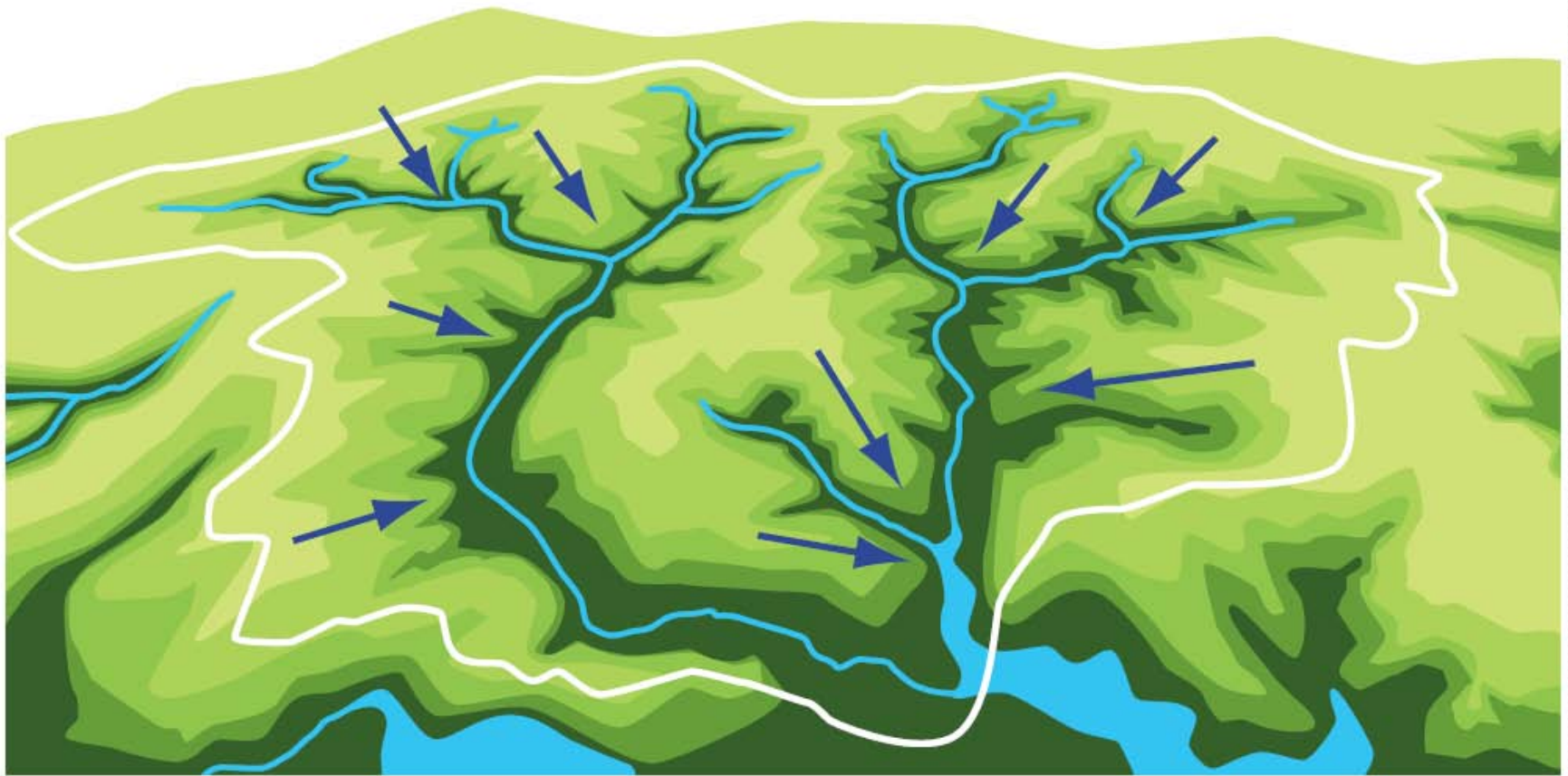


Matt Meersman

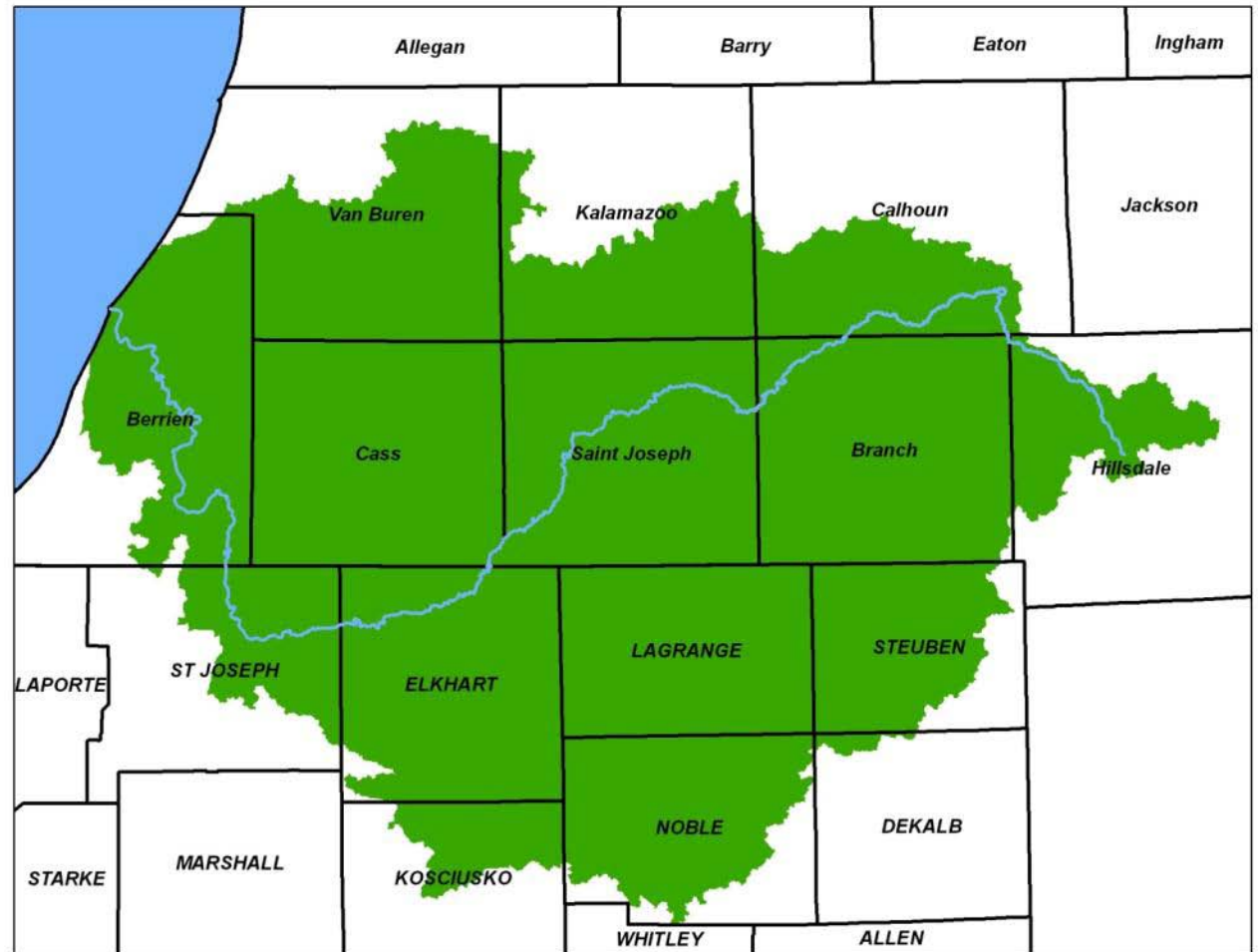
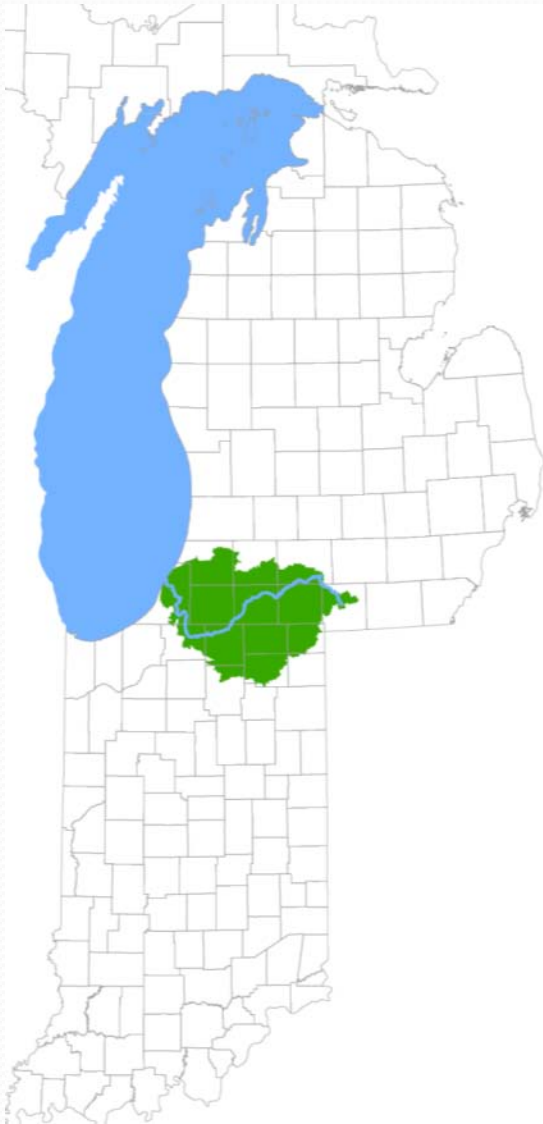
Friends of the St. Joe River

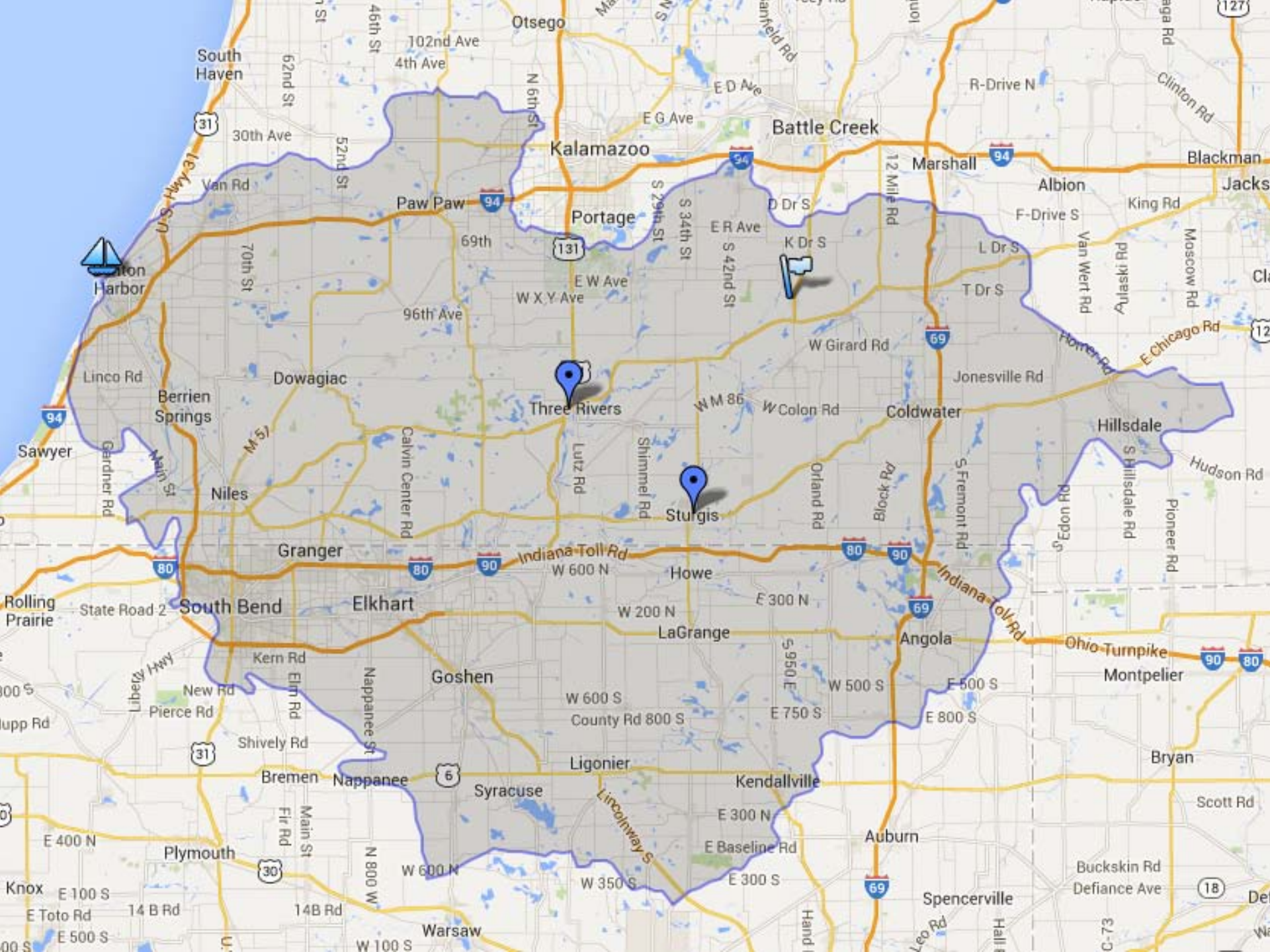
What is a “watershed”?

- All of the land that drains to a body of water

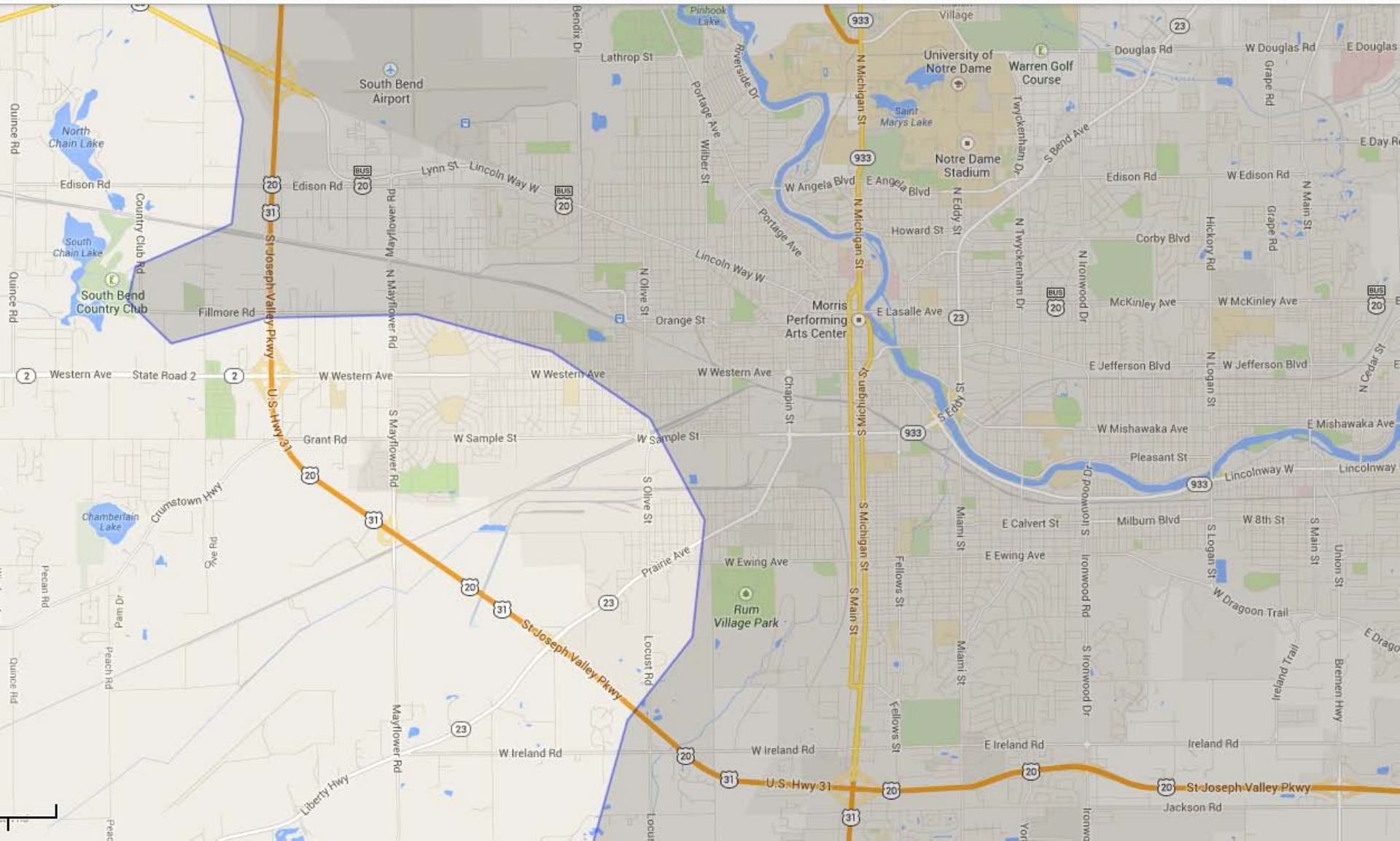


St. Joseph River Watershed



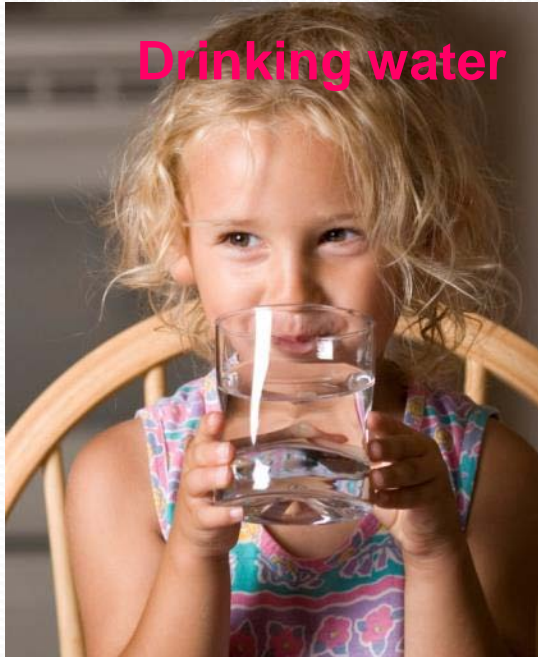


North/South Continental Divide



Why Care About Clean Water?

Drinking water



Fishing



Farming



Canoeing



Swimming





Why Care About Water Quantity?

With over \$6.5 M in damages, flooding is the highest damaging hazard in Elkhart County.





Estimated total property and crop loss for the July 2006 flood event was approximately \$1.5 M



Why Care About Erosion and Sediment?



\$1.5 million in 2014



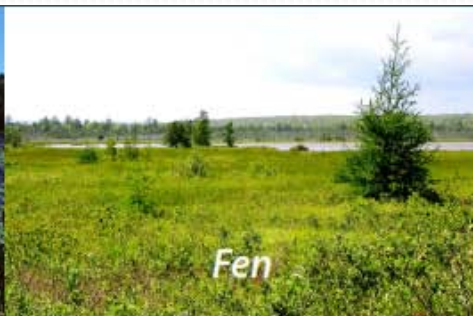
What about wetlands and why are they so important?



Wetlands are places where land and water meet...



Marsh



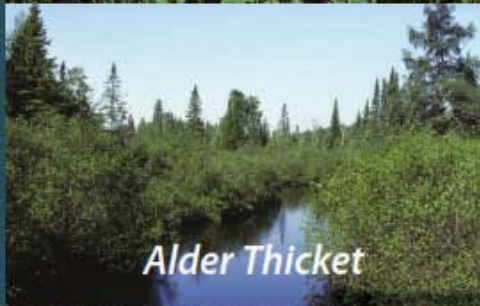
Fen



Sedge Meadow



Low Prairie



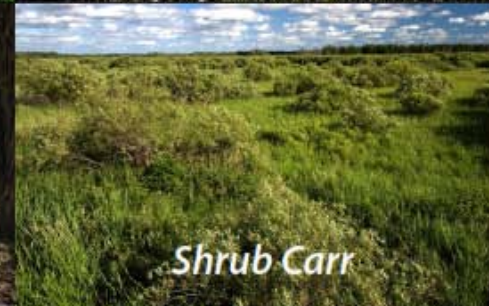
Alder Thicket



Open Bog



Ephemeral Pond



Shrub Carr



Coniferous Bog



Coniferous Swamp



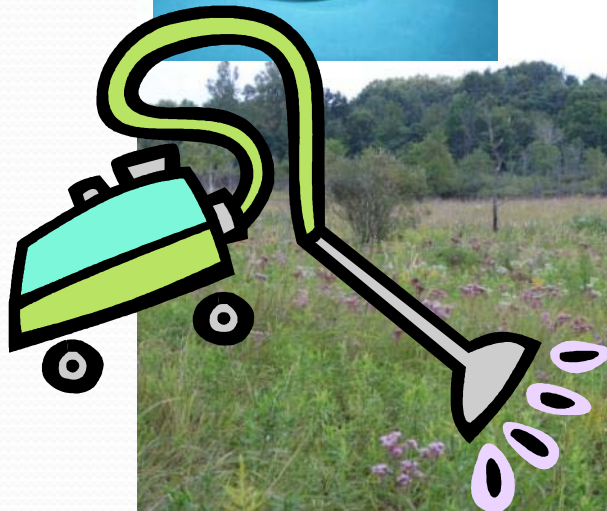
Floodplain Forest



Lowland Hardwood Swamp

They Do So Much!

Water Quality Related Functions

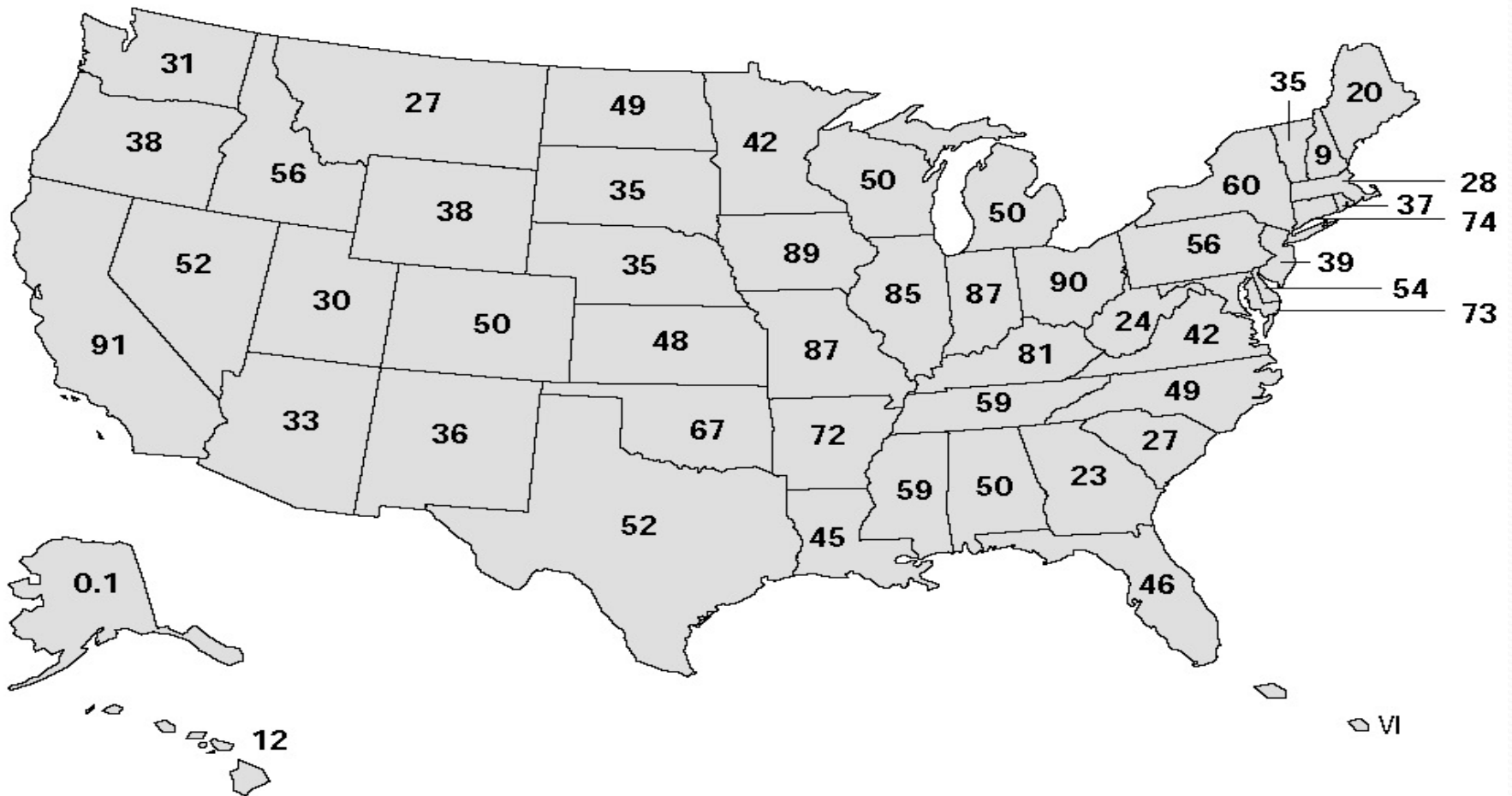


Habitat Related Functions

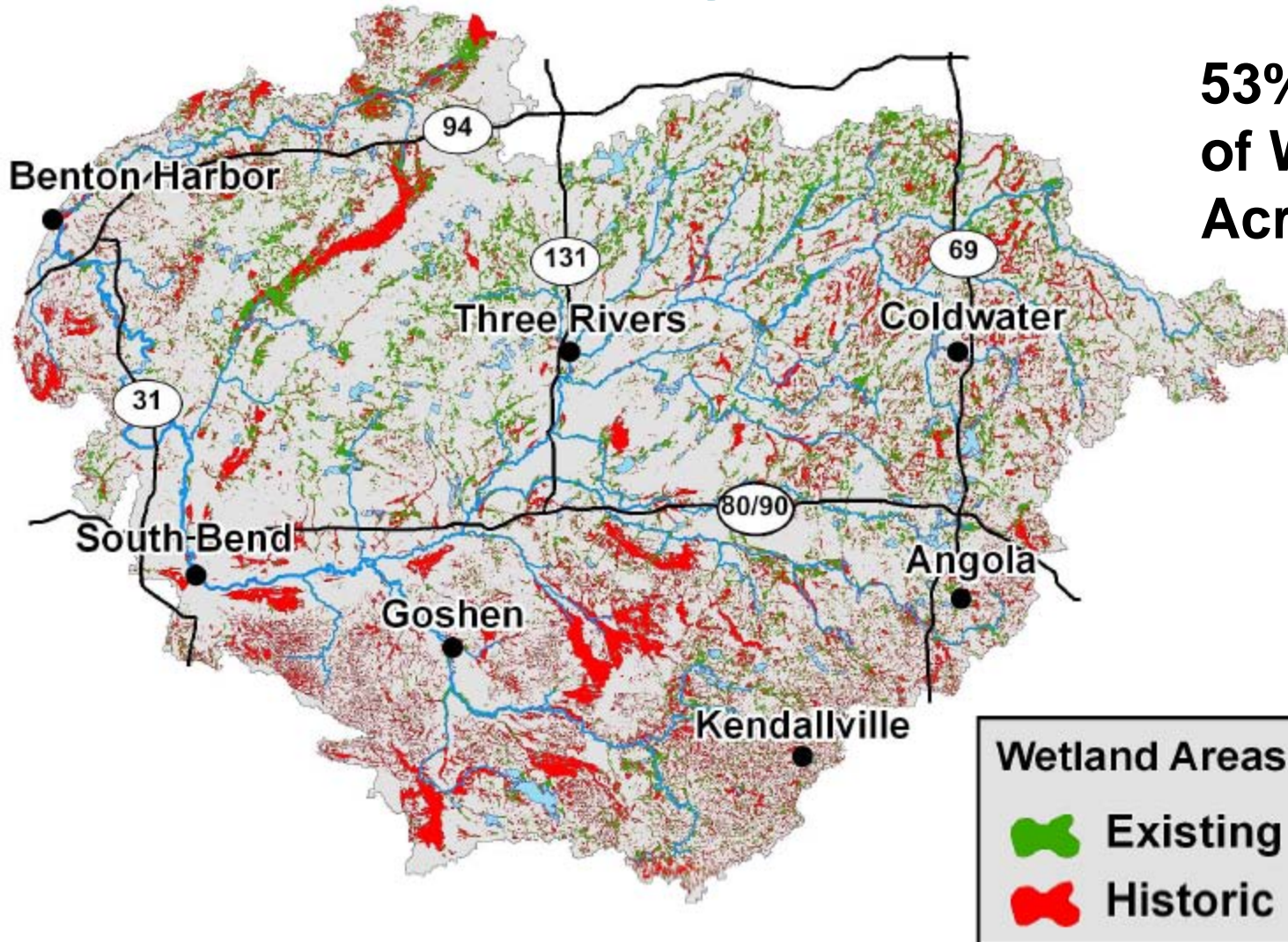


We've *Lost* So Much!

Percentage of Wetland Acreage Lost,
1780s-1980s



We've Lost So Much Here!



**53% Loss
of Wetland
Acres**

671,721 Acres Wetlands Pre-Settlement

315,878 Acres of Wetland Remaining

We know they're important

We know we've lost a lot

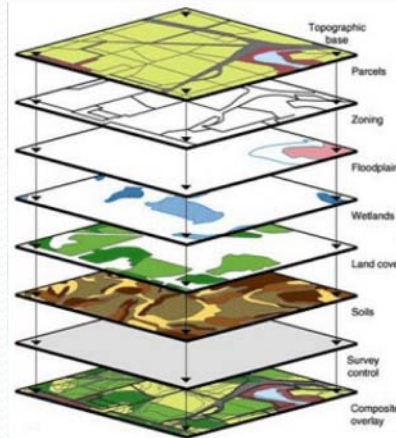
But....



SJRW Wetland Project

A 3 Step Strategy for Watershed Improvement:

1. **ENHANCE** existing and historic wetland data
2. **PRIORITIZE** by geography and functional significance
3. **UTILIZE** results to direct implementation efforts



17% Acreage Lost in Nottawa Creek



41% Flood Storage Capacity Lost In Nottawa Creek

Christiana Creek Subwatershed (0405000114)		
Rank	Potential Landowner	Wetland Acres
1	NELSON FAMILY TRUST	232
2	COUNTY OF CASS, MI	193
3	WESTPHAL, CHARLES R	219
4	LARF LLC	141
5	STATE OF MICHIGAN DNR	148
6	WARREN, DWAIN K & CYNTHIA J	80
7	MC KENZIE, DARLENE J TRUST	132
8	BRANCALEON, TEENA	75
9	SPARKS CEDARLEE FARM	81
10	PAPANDREA, STEPHEN	65

What We Know Now...

Area	Acreage Loss	Floodwater Storage Loss	Sediment Retention Loss	Fish Habitat Loss	Overall Water Quality Loss	Overall Habitat Loss
Cass County	28%	37%	36%	50%	32%	28%
St. Joseph County	92%	92%	87%	98%	92%	93%
Elkhart River	71%	72%	57%	82%	67%	70%
St. Joseph River Watershed	53%	59%	49%	69%	52%	55%

•**Water Quality**- Floodwater Storage, Sediment Retention, Nutrient Transformation, Shoreline Stabilization, Streamflow Maintenance, Carbon Sequestration, and E coli Retention

•**Wildlife Habitat**- Fish, Waterfowl, Interior Forest Bird, Shorebird, and Amphibian Habitat.

How are we using it?

Targeting Landowners for Voluntary Protection and Restoration

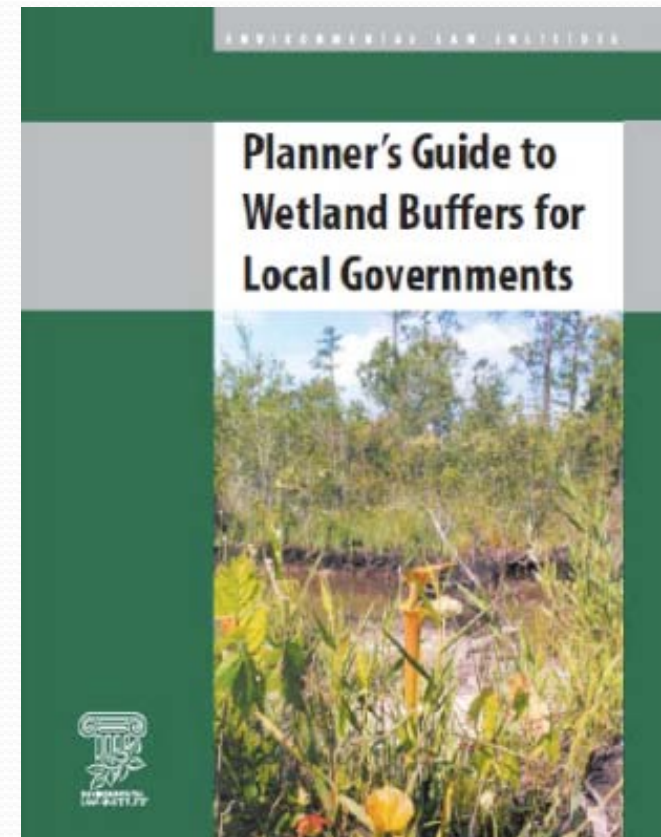
- Technical Assistance
- Financial Assistance
- Incentives



How are we using it?

Targeting Municipalities for Planning and Zoning

- Understanding local needs for planning and zoning for wetlands



Local Government Authority

Through planning and zoning, local governments have the authority to decide what land will be developed and how it will be developed.

Indiana Code lists the following purposes for local zoning:

- Securing adequate light, air, convenience of access and safety from fire, **flood, and other danger**
- Promoting the **public health, safety, comfort, morals, convenience and general welfare**



Wetland Protection Options

Allow ↔ **Encourage** ↔ **Require**

Land Use Plan

Development Plan Review

Development Plan Review

Remove Zoning Barriers

Incentives for Planned Unit
Developments/
Conservation Subdivisions

**Explicit about wetlands
being included in open
space**

Public Land – Examples/
Demonstrations

Overlay Districts

**Wetland Protection
Ordinance**

**Restrict Development in
Hydric Soils**

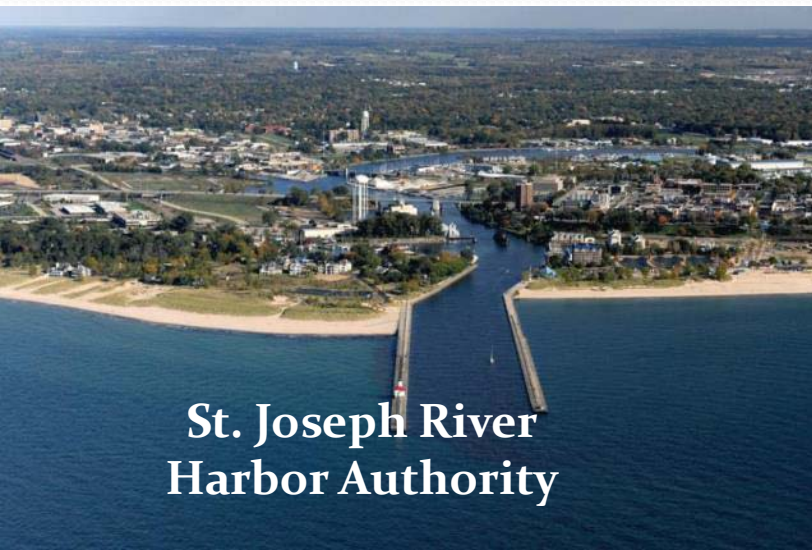
**Building Setbacks with
Vegetated Buffer**



Helping Our Partners



St. Joseph River Basin Commission



St. Joseph River Harbor Authority



Acknowledgements

Wetland Enhancement Methodology

- Chad Fizzell, Michigan Dept. of Environmental Quality
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- Jeremy Jones, Michigan Dept. of Environmental Quality
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Municipal Planning and Zoning Techniques

- Marcy Colclough, Southwest MI Planning Commission
ColcloughM@swmpc.org or 269-925-1137



For more information:

- Wetland Partnership Project
www.fotsjr.org/wetlandpartnership
- Friends of the St. Joe River
www.FotSJR.org



Or contact:

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