

# Regional Watershed Planning

Calumet Summit 2010: A Call to Connect  
Calumet Conference Center  
April 27, 2010

# Basins

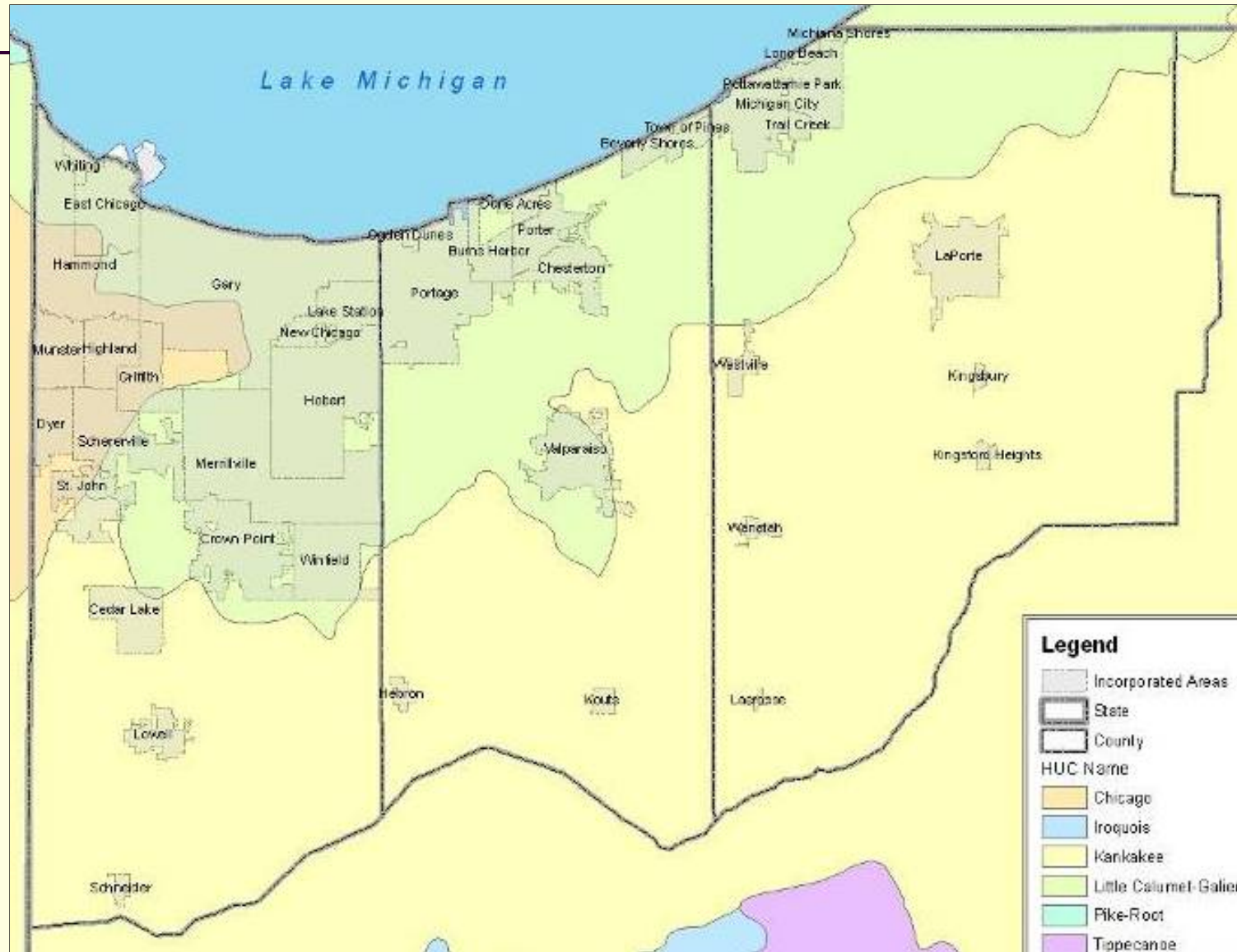


# The Calumet Region

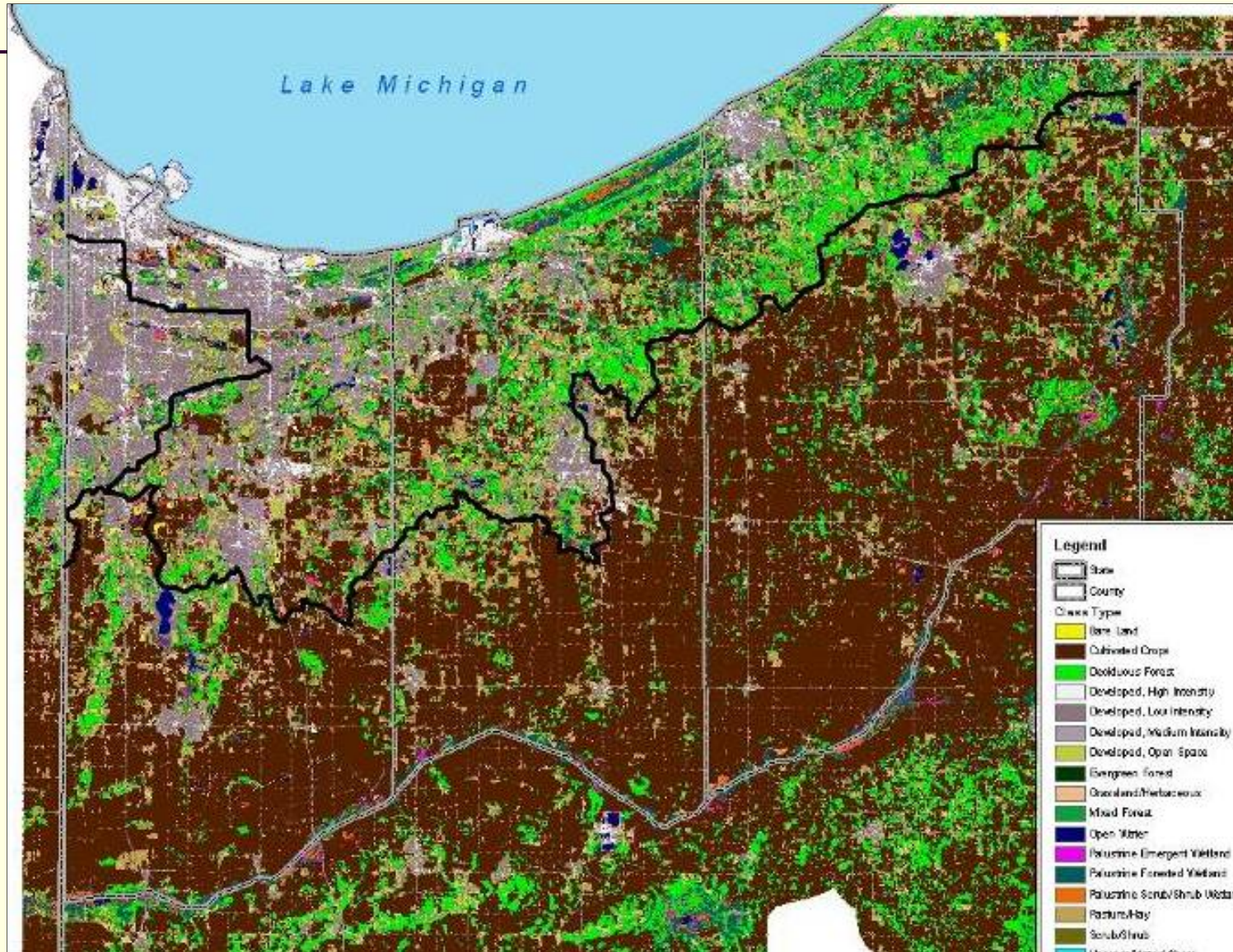
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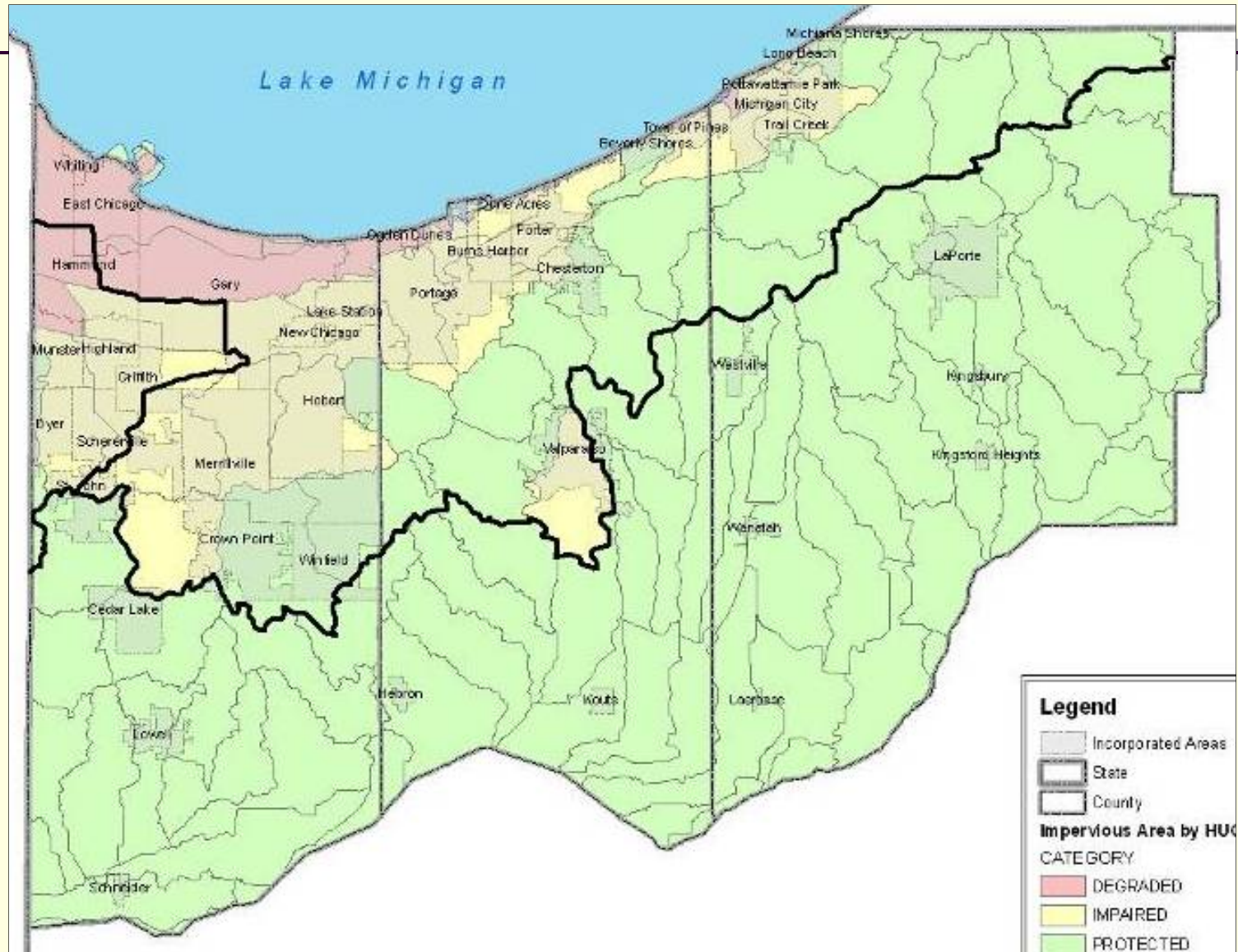
# Watershed Communities



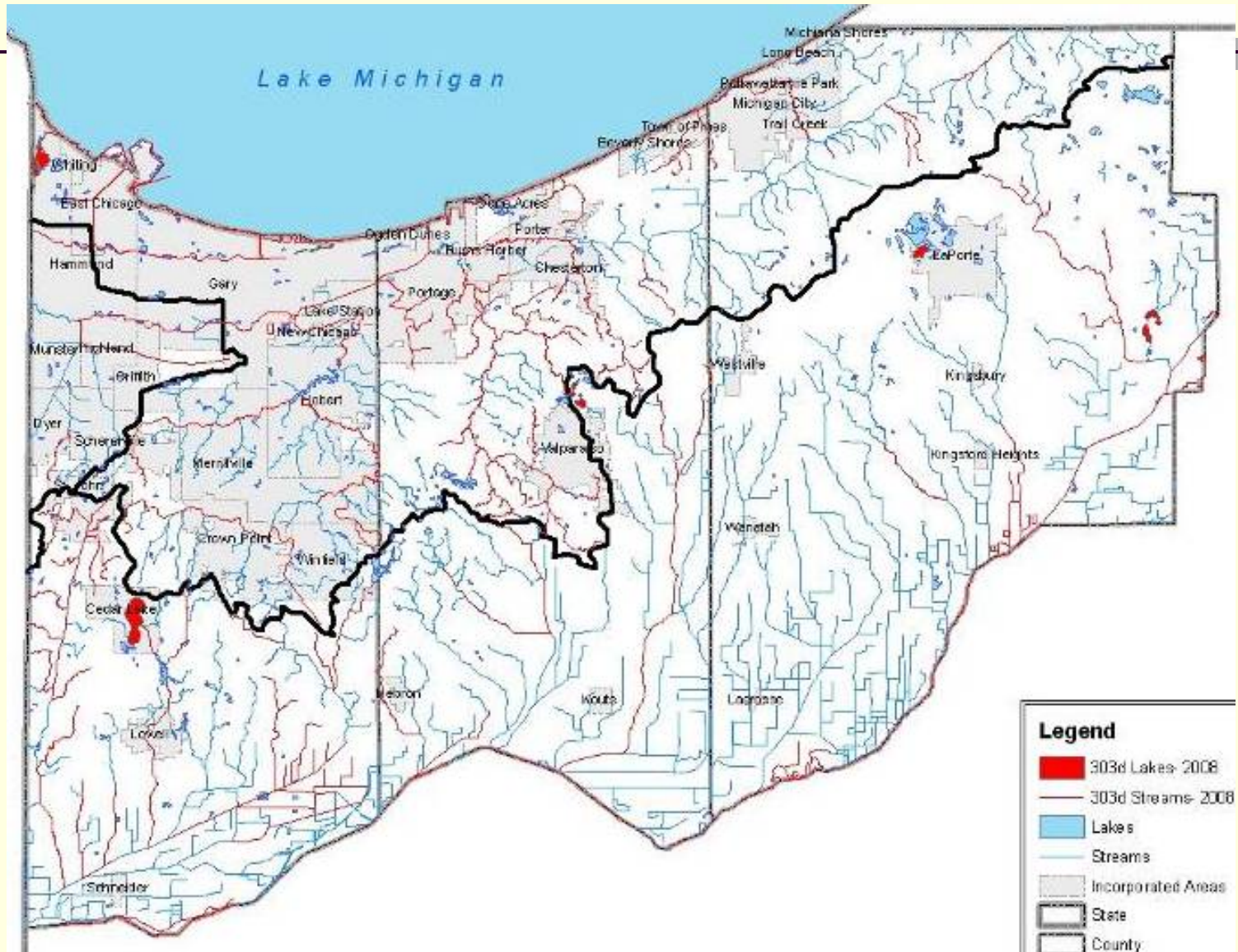
# Land Cover- 2006



# Impervious Cover



# 303d Listed Waterbodies



# Total Maximum Daily Load Projects

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- Galena River: E. coli –*Draft*
- Kankakee/Iroquois River: E. coli- 2009
- Lake Michigan: E. coli- 2004
- Little Calumet R./Burns Ditch: E. coli- 2004
- Salt Creek: E. coli- 2004
- Trail Creek: E. coli- 2004



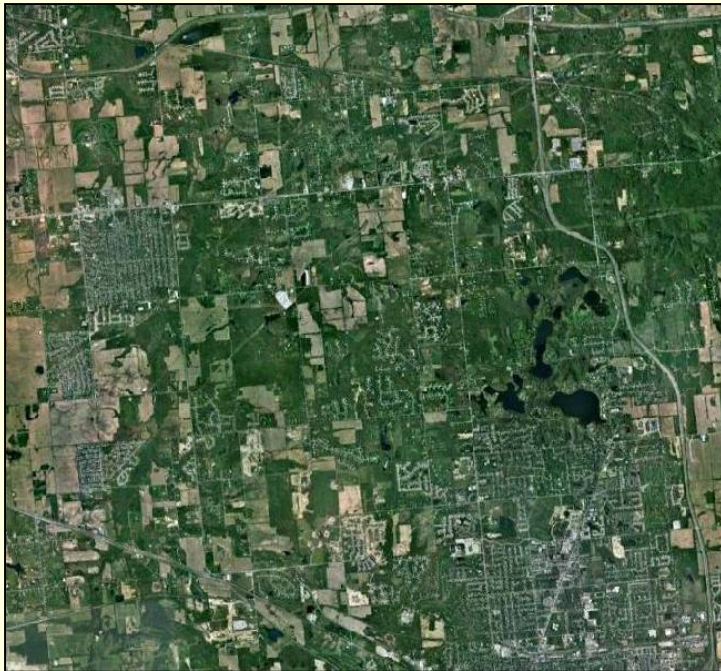
# Watershed Management Framework Plan

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- Framework for water quality improvements and planning.
- Lake, Porter & LaPorte Counties.
- Watershed Advisory Group.
- Problems, causes and sources.
- Critical areas.
- Goals and objectives

# Major Categories

- Urban & Rural Areas
- Agricultural Sources
- Hydromodification



# Urban & Rural Areas- Critical Areas

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- New Development
- Existing Development
- Failing On-site Sewage Systems
- Road, Highways and Bridges



# Agricultural Sources- Critical Areas

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- Row Cropland >2% Slope
- Confined Animal Facilities
- Nutrient Application to Cropland
- Pesticide Application to Cropland
- Livestock Grazing



# Hydromodification- Critical Areas

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- Channelization
- Wetland Loss
- Dams- Erosion and Sediment Control
- Streambank and Shoreline Erosion





# Dunes Creek Watershed



- Reduce nutrient and sediment by 20% by 2016.
- Reduce pathogen concentrations to meet the state standard by 2016.
- Improve stakeholder and public involvement.
- Improve biotic communities by 2016 so that they are partially supporting.
- Reduce TDS and chloride concentrations to meet Indiana State Standard.

# Salt Creek Watershed



- Reduce nitrate by 65%, phosphorus by 66%, and sediment loading 33% by 2028.
- Reduce pathogen (*E. coli*) concentrations by 86% by 2028.
- Improve stakeholder and public involvement.
- Improve biotic communities so that the density and diversity of EPT (*Ephemeroptera*, *Plecoptera*, *Trichoptera*) taxa improves by one scoring metric level.

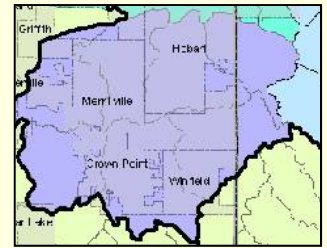


# Trail Creek Watershed



- Meet the State Water Quality Standard for *E. coli* of a monthly geometric mean of 125 cfu/100 ml and a maximum daily standard of 235 cfu/100 ml.
- Decrease sedimentation and dredging of the navigable channel. Total Suspended Solid goal of 15 mg/l.
- Decrease nutrient loading in Trail Creek to the target concentrations (0.05 mg/l ortho-phosphorus, 0.05 mg/l total phosphorus, 0.25 to 0.1 mg/l nitrogen ammonia, 1.0 mg/l TKN, and 10 mg/l nitrate-nitrite).
- Maintain a natural stream channel and flow.

# Deep River-Turkey Creek Watershed



- Minimize the deposition of new sediments into Lake George.
- Improve water quality in Deep River/ Turkey Creek watersheds.
- Improve education about water quality problems/ concerns.
- Eliminate illegal discharges.
- Eliminate Failing septic systems.
- Promote consistency among communities developing stormwater management programs.

# W. Br. Little Calumet River- Willow Creek Watershed



- Reduce *E. coli* levels in the Little Calumet River by reducing loads to the River to meet beneficial uses.
- Reduce sediment loads by source reduction strategies and, in priority subwatersheds, through the use of BMP's.
- Reduce nutrient loads by source reduction strategies and, in priority subwatersheds, through the use of BMP's.
- Restore, improve, and/or protect floodplains, wetlands, natural areas, and riparian corridors.
- Improve public awareness/knowledge of pollutant loads, sources, and solutions, especially with regard to *E. coli*, and the impacts and risks associated with them.
- Create an active watershed alliance or conservancy district that facilitates and implements information sharing including ordinances, projects/experiences, and educational materials in a central location.
- Increase river corridor connectivity, river navigability, and public access sites and make the public aware of them.

# Galena River Watershed



- Hire a dedicated watershed coordinator for LaPorte County.
- To protect the rural character and natural resources of the watershed by incorporating 'Smart Growth' and low impact development principles into local planning and development.
- Reduce *E. coli* loads to meet water quality standard of a monthly geometric mean of 125 cfu/100 ml and a maximum daily standard of 235 cfu/100 ml.
- Restore 10% of potential wetland restoration areas to wetland habitat within the next ten years.
- Preserve natural areas through government coordination and/or land trusts.
- Reduce sediment loads in the Galena River.

# Coffee Creek Watershed



- Hire a watershed coordinator.
- Establish/encourage permanently protected, vegetated streamside buffers.
- Encourage the conservation, management, and improvement of existing forested land in the upper portion of the watershed.
- Educate/inform stakeholders of the value of Coffee Creek and ways to protect its water quality and aquatic life.
- Understand the processes involved in identifying the sources of E. coli and to educate watershed stakeholders on management techniques available to reduce pathogenic contamination.
- Document the contribution of sediment, nutrients, and bacteria from the surface and subsurface drains.
- Reduce the amount of sediment from Pope O'Connor Ditch by 65% and nutrients by 40%.
- Reduce the amount of sediment from Shooter Ditch by 65% and nutrients by 40%.

# Watershed Planning Accomplishments

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- Seven watershed plans completed since 2002.
- Plans exist for approximately 70% of the Little Calumet-Galien drainage.
- Increased stakeholder participation in planning and implementation efforts.

# Watershed Management Challenges

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- Local capacity.
- Balance between growth and resource protection/restoration.
- Collaboration across political boundaries.
- Conflicting interests.
- Long-term sustainability of watershed groups.

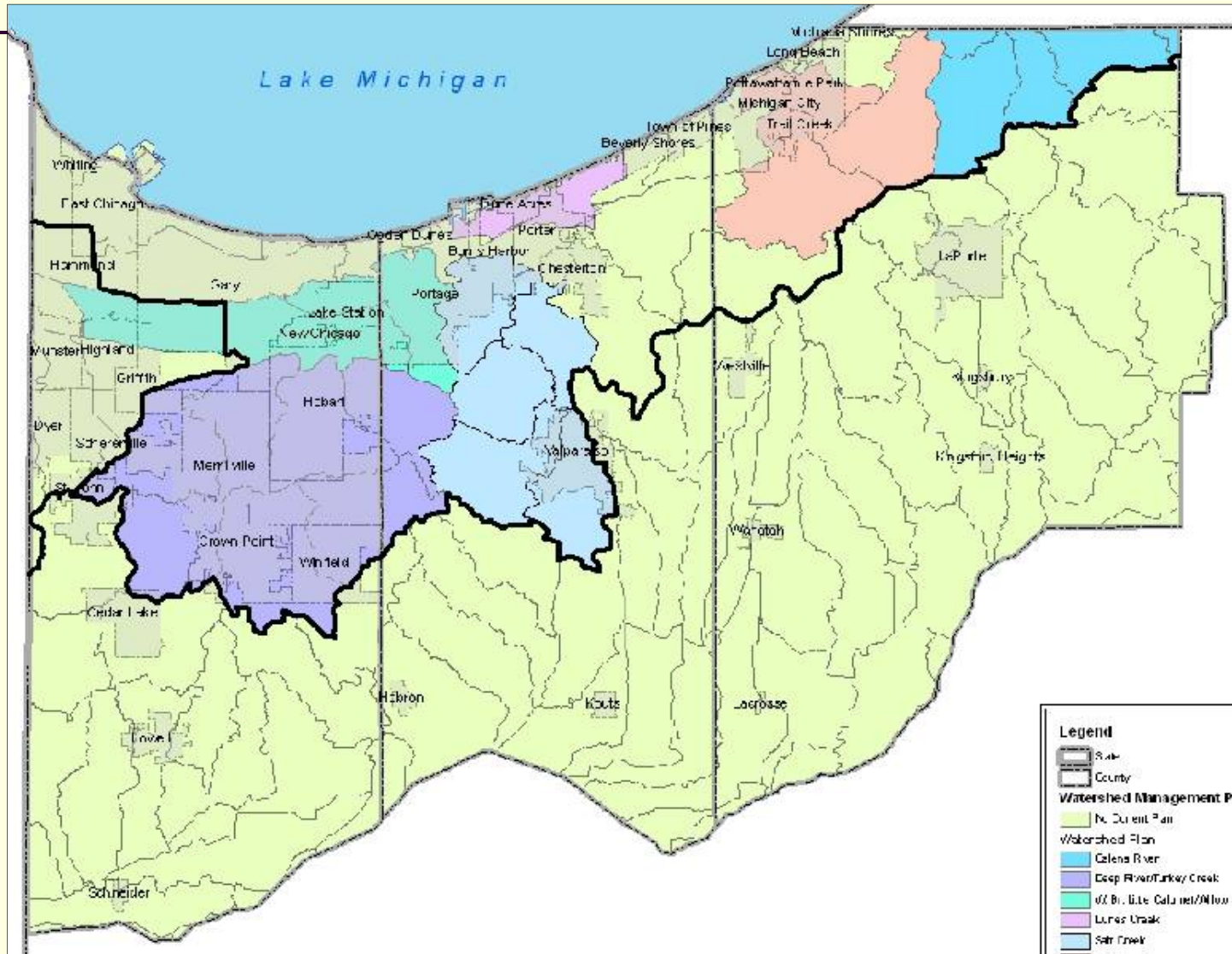
# Watershed Management Opportunities

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- TMDL recently completed for Kankakee River.
- Incorporation of watershed restoration and protection objectives into other local and regional planning efforts.
- Great Lakes Restoration Initiative.
- Shared outreach and implementation between watershed groups.
- Updating the Watershed Framework Plan.



# Opportunities...



# Questions?

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