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Water Resources Management Program Update

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Motivation & Goals

Motivations:

- Strong community commitment to improving water quality
- Recognition that nutrient losses from nearshore and across the watershed are key drivers of water quality impairment
- Understanding the current state of the watershed

Project Goal: Provide a solid foundation of knowledge to aid future planning

- Recent and historical changes in drivers of water quality
- Current water quality and habitat conditions
- Strategies for specific nutrient loss reduction efforts and increased community engagement

Okee Bay:

- Historical map and aerial imagery analysis
- Look at current shoreland conditions
- Okee Bay mail surveys

Historical map and aerial imagery analysis

Method: Gather historical maps, aerial photos, and remote sensing and classify each image in geographic information systems (GIS).

Goal: Maps that show changes in shoreland development, and erosion over time. Help prioritize shoreland areas for management practices.

Photo: Eric Booth

Assess currently shoreland conditions

Method: Use a standardized protocol to look at the banks, shallow water near banks, and the buffer zone above the bank between May- September.

Goal: Collect habitat survey and photographs and understand land use and possible management practices for the future.

Okee Bay mail surveys

Method: Send out surveys via mail, with questions about water quality and management practices.

Goal: Understanding perspectives on both the water quality of Okee Bay, and of management practices. Next create materials for shoreland owners about management practices.

Photo: Eric Booth

Spring Creek:

- Spring Creek water quality monitoring
- Conduct a stream habitat assessment

Photo: Eric Booth

Assess and monitor Spring Creek water quality

Method: Monthly water samples between May to October 2026 from 5 sites (Bohlman Branch, West Branch, South Branch, Goeres Park and near Hwy J) following Water Action Volunteer Nutrient Monitoring methods,

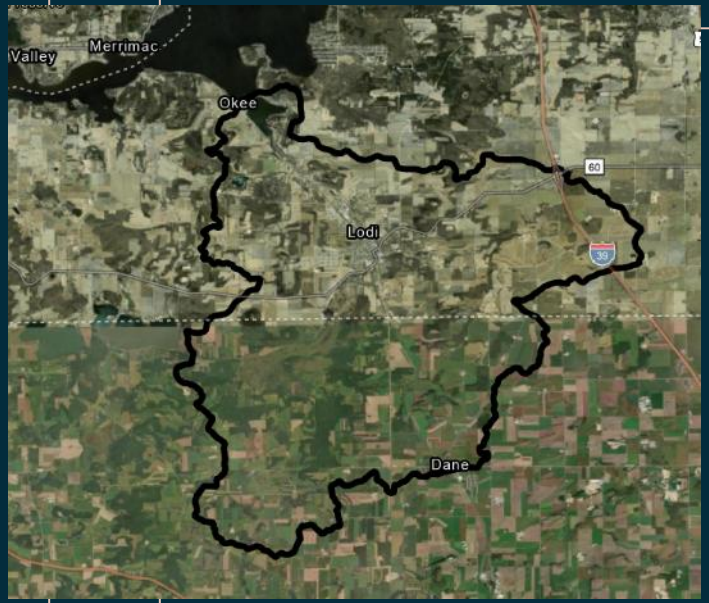
Goal: Collect data on phosphorus, nitrate-nitrogen. Data that will be recorded to better support and understand long term trends in water quality and guide efforts.

Stream habitat assessment

Method: Use the WDNR guidelines for “Evaluating Habitat of Wadeable Streams.” Looking at the shape of the stream, look at erosion on the stream banks, the types of plants present, and the type of soil and rocks in the stream.

Goal: Gather data, that can be understood via maps and figures to add to final report. Help integrate into current management discussions.

Photo: Eric Booth



Spring Creek Watershed:

- Historical and current lang conditions within the watershed
- Look at erosion and nutrient loss throughout the whole watershed.

Understand and gather information on historical land changes within the watershed.

Method: Download historical maps and remote sensing. Use ArcGIS to better understand and analyzing maps.

Goal: Understand what changes have occurred that could potentially impact water quality, and better inform management strategies

Photo: Eric Booth

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Nutrient loss and erosion

Method: Use the WDNR Erosion Vulnerability Assessment for Agricultural Lands and USDA's Agricultural Conservation Planning Framework within GIS

Goal: Create maps of priority areas for nutrient loss intervention. It will be shared with project collaborators.

Future Considerations

- What volunteer sampling is occurring in the bay?
    - Goals, targets, timing
- Future steps in aquatic plant harvesting and restoration?

- How are needs or mission evolving in Okee Bay?

Any questions/feedback?

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Thank you!