Southeastern Wisconsin

Regional Planning Commission

Regional Water Quality Management Plan Update

Prospectus

Technical Advisory Committee Meeting
February 13, 2026

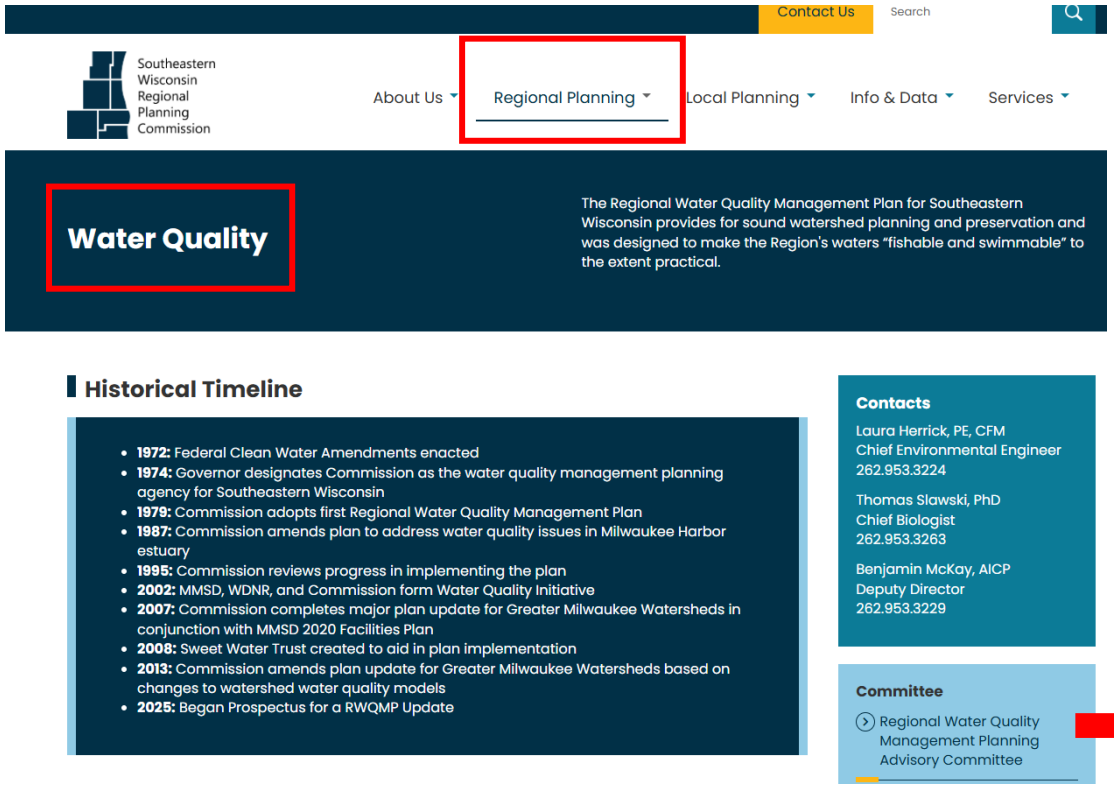
#00278579

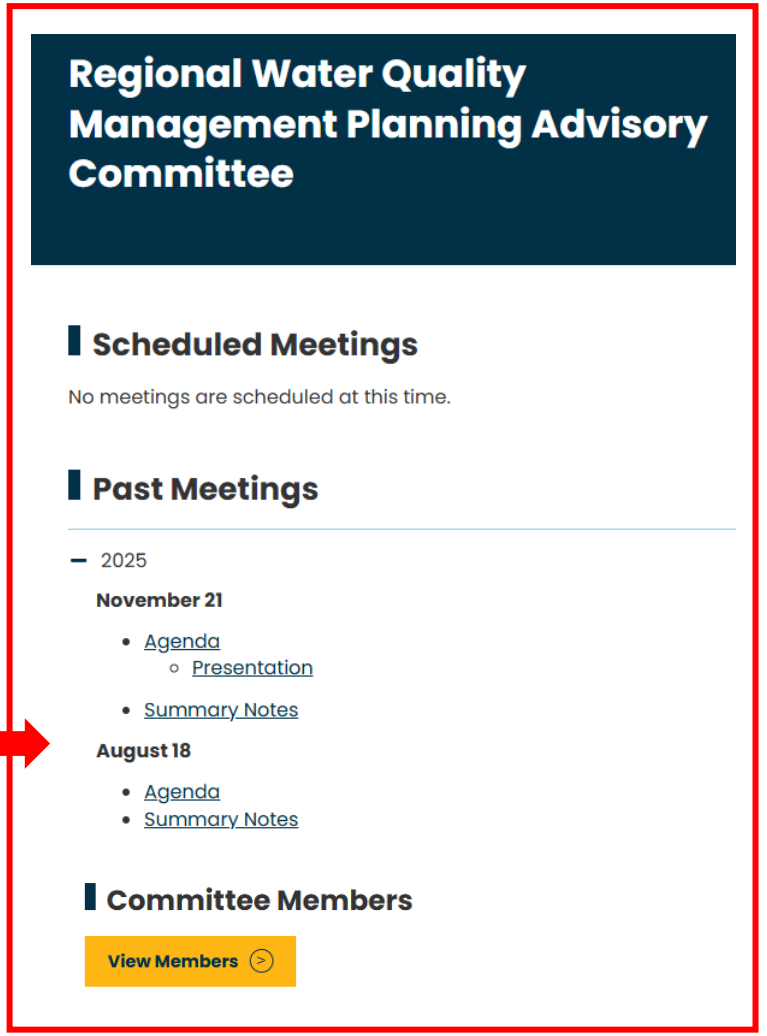
Meeting Agenda

1. **Introductions**
2. **Review November TAC Meeting Notes**
3. **Brief Reminder of RWQMP History**
4. **Continue Prospectus Scope Discussion**
   - Priorities and Outcomes
     - Assessments and Inventories
5. **Next Steps**

Online Information

www.sewrpc.org





Regional Water Quality Management Plan History

1964 - 2025

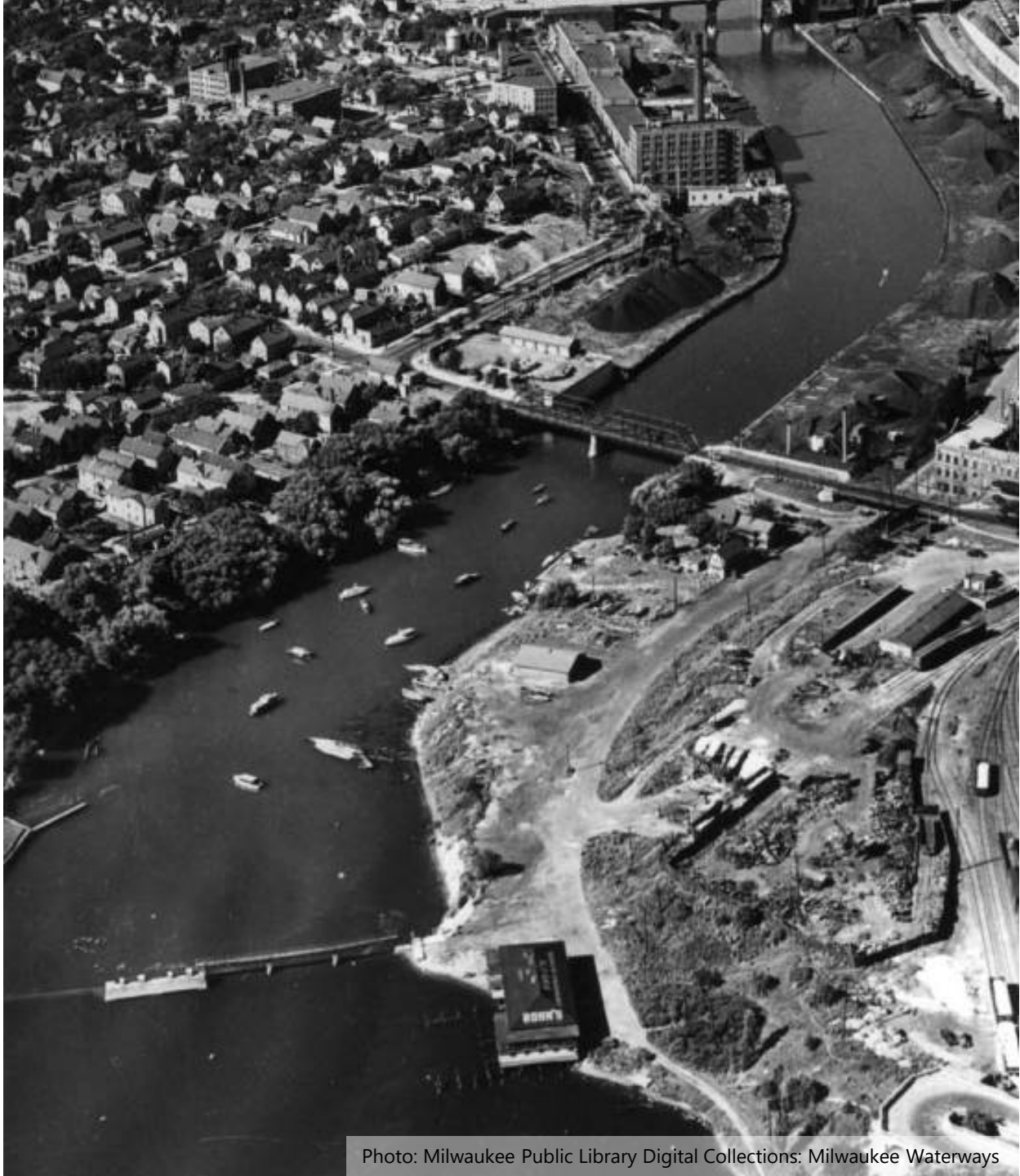


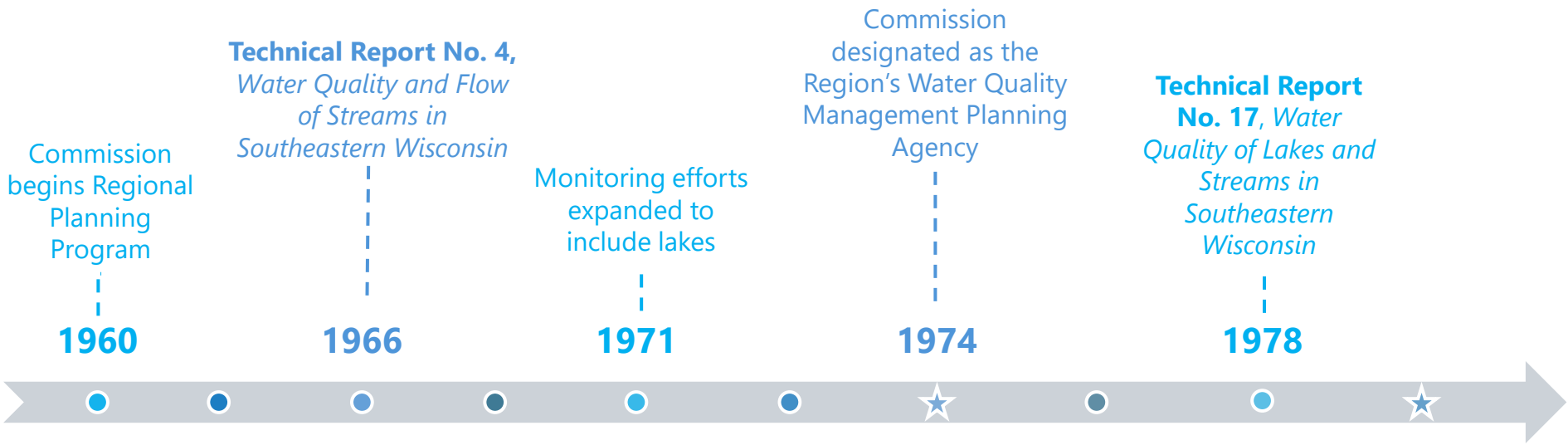
Photo: Milwaukee Public Library Digital Collections: Milwaukee Waterways

About the RWQMP

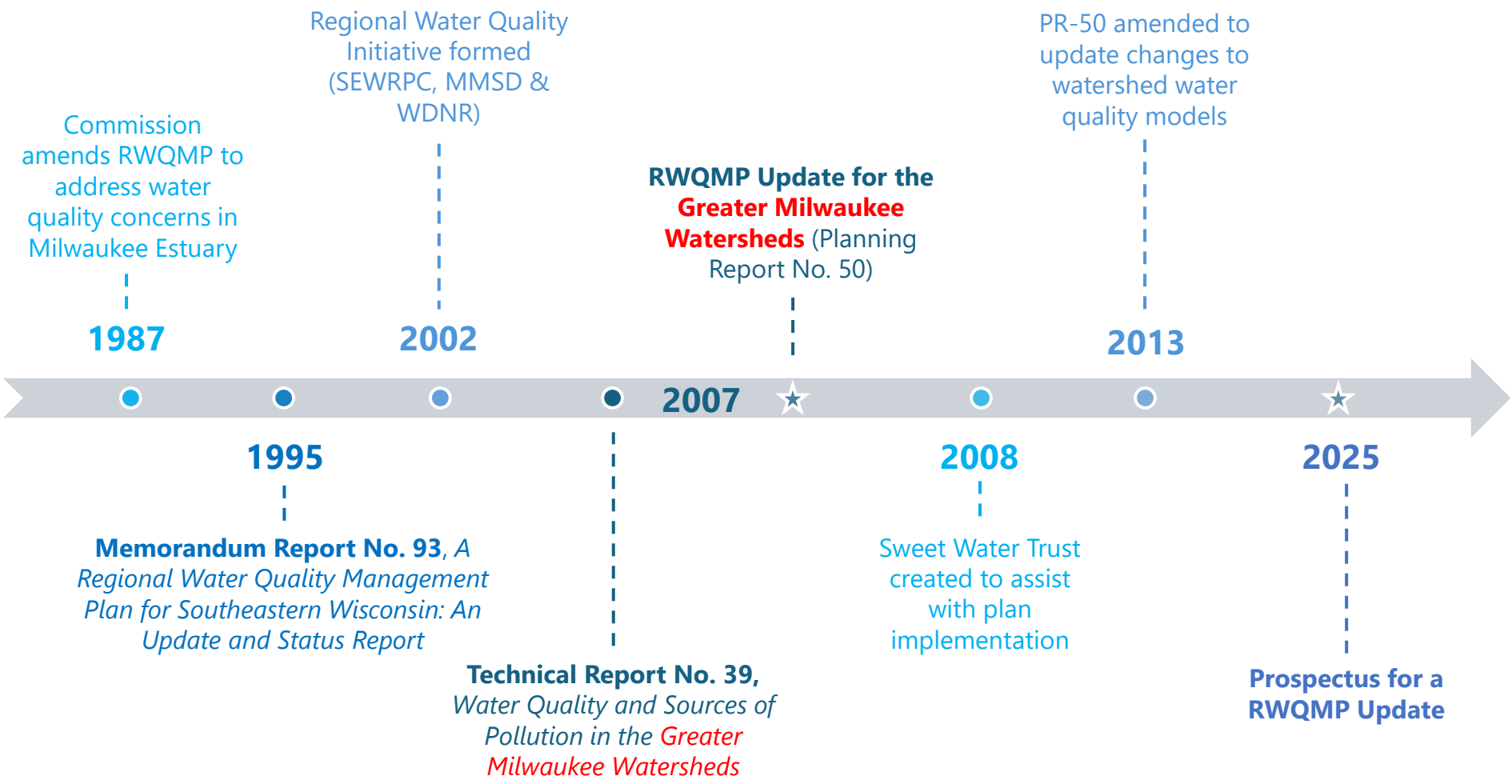
Image Credit: SEWRPC

- Foundation for all of the Commission's environmental, water quality, sewage treatment, and sanitary sewer planning work
- Summarizes essential data and information about the health of our Region's waters
- Provides data-informed recommendations with the goal of achieving fishable and swimmable waters
- In accordance with WI Administrative Code NR-121
  - Policies, procedures, and requirements for areawide water quality management planning under WDNR

Water Quality Management Timeline



Water Quality Management Timeline



RWQMP Update Prospectus

Prospectus Goal

To identify a workplan for a RWQMP update to support the goal of fishable and swimmable waters for the entire seven county Region.

The Prospectus will

- Establish the need for and purpose of a RWQMP update
- Identify the scope and content of the update
- Describe the efforts needed to evaluate historical and current regional water quality conditions
- Recommend the most feasible means for organizing and accomplishing the required work
- Determine a work schedule
- Recommend a budget and identify potential sources of funding

Prospectus Scope Discussion

Priorities and Desired RWQMPU Outcomes

Photo of Root River: SEWRPC Staff

Regional Water Quality Assessments

- **Purpose of Water Quality Inventories**
  - Assess current water quality
  - Assess changes in water quality over time (1960-2026)
  - Assess how changes in Region (land use, WW treatment, etc.) have impacted water quality

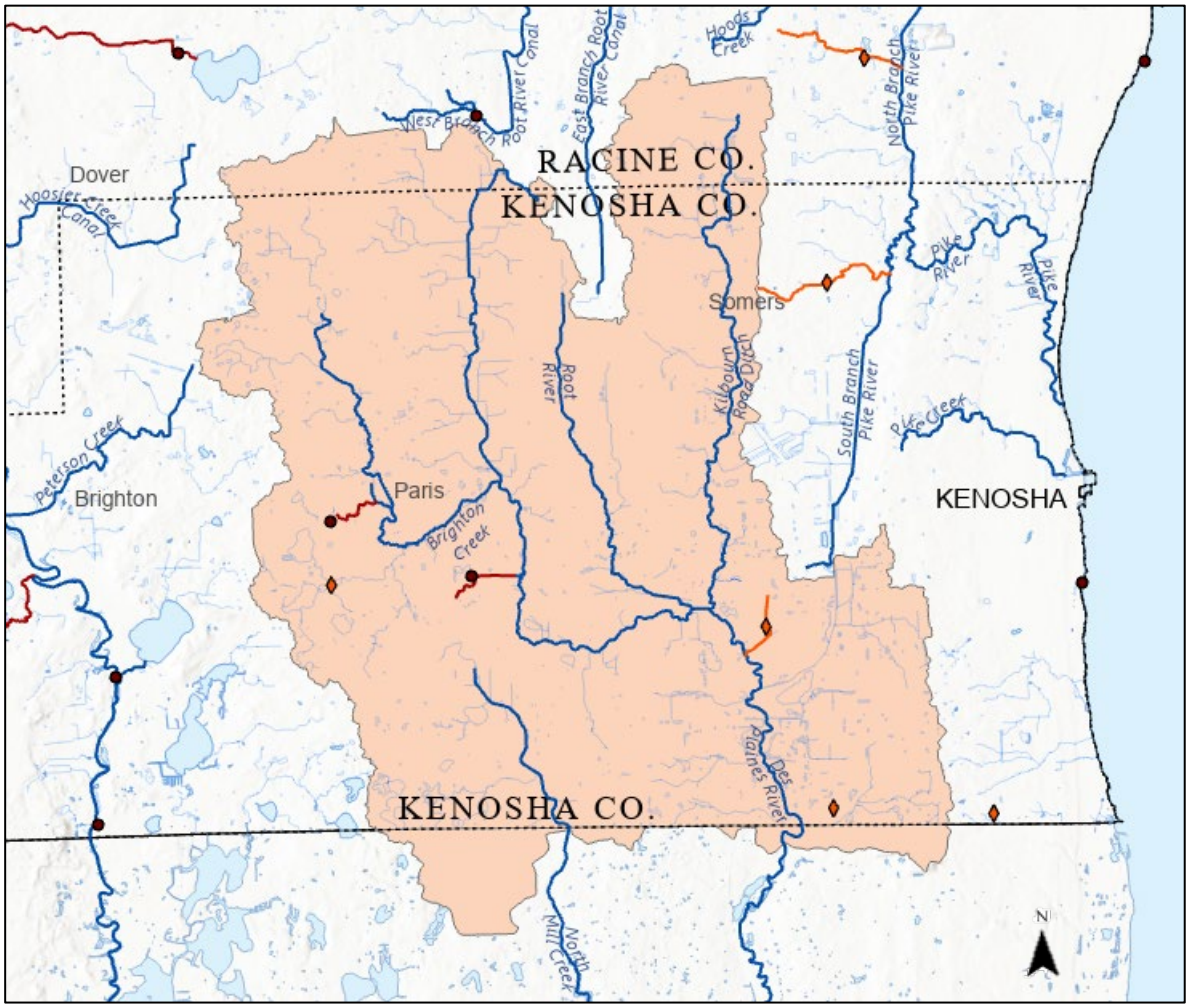
  → Lead to recommendations for improving water quality

Regional Water Quality Assessments

- **Streams Water Quality**
  - Primary Flow Perennial Streams (“Major” Streams)
  - WWTP Discharge
  - Abandoned or Planned WWTP
  - Regionally Significant
  - Available Water Quality Data

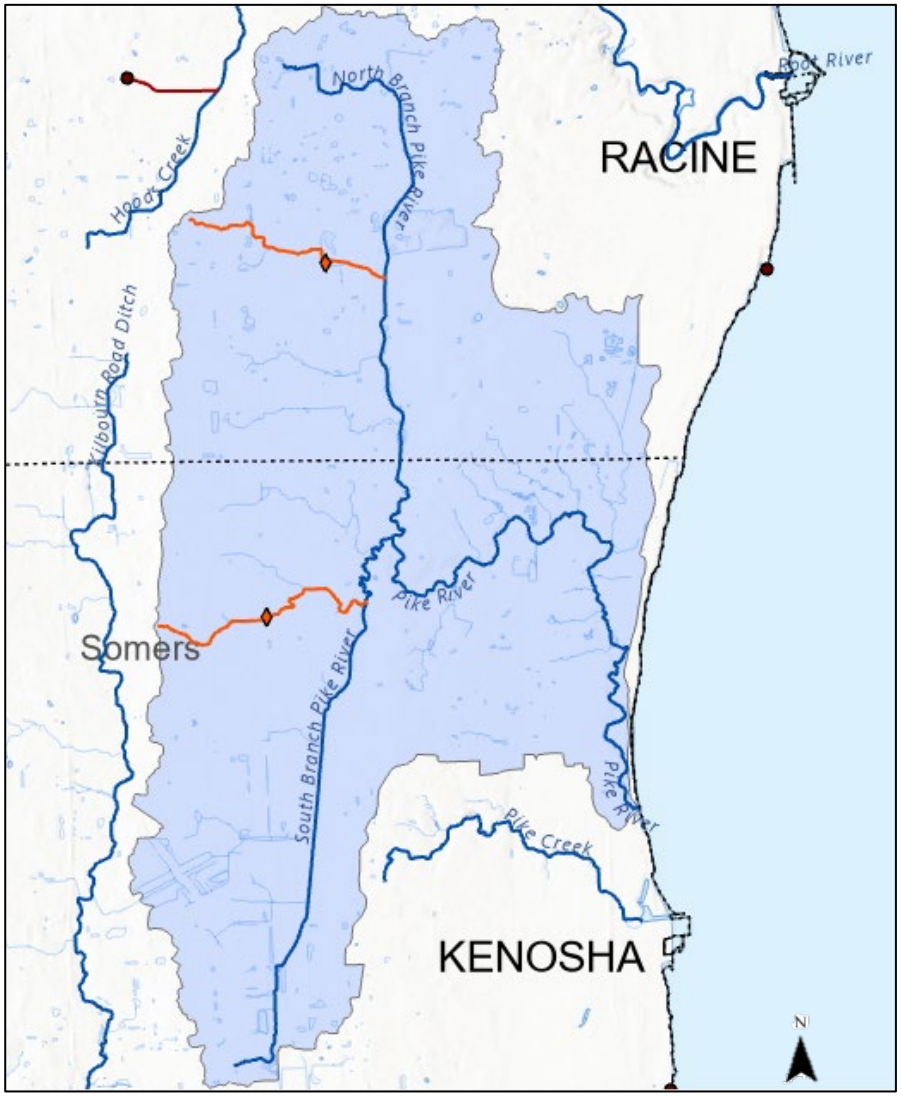
Des Plaines Watershed - Major Streams

- Major Perennial Streams and Selected Minor Streams
- Streams with Abandoned or Planned WWTPs
- Streams with WWTP Discharge
- Planned or Abandoned WWTPs
- Active WWTP Discharge Locations
- Region Boundary
- Des Plaines River WS



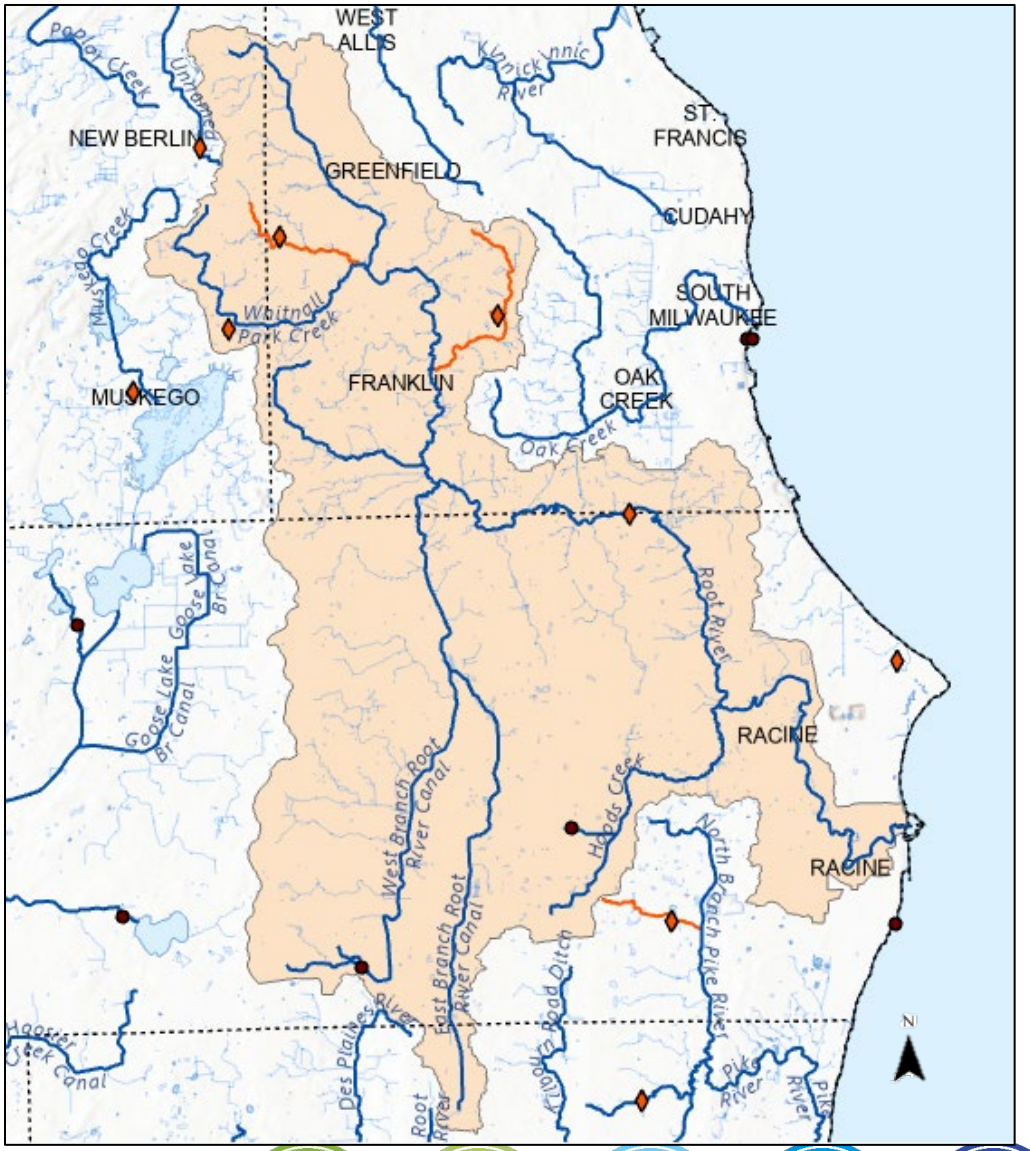
Pike River Watershed - Major Streams

- Major Perennial Streams and Selected Minor Streams
- Streams with Abandoned or Planned WWTPs
- Streams with WWTP Discharge
- Planned or Abandoned WWTPs
- Active WWTP Discharge Locations
- Region Boundary
- Pike River WS

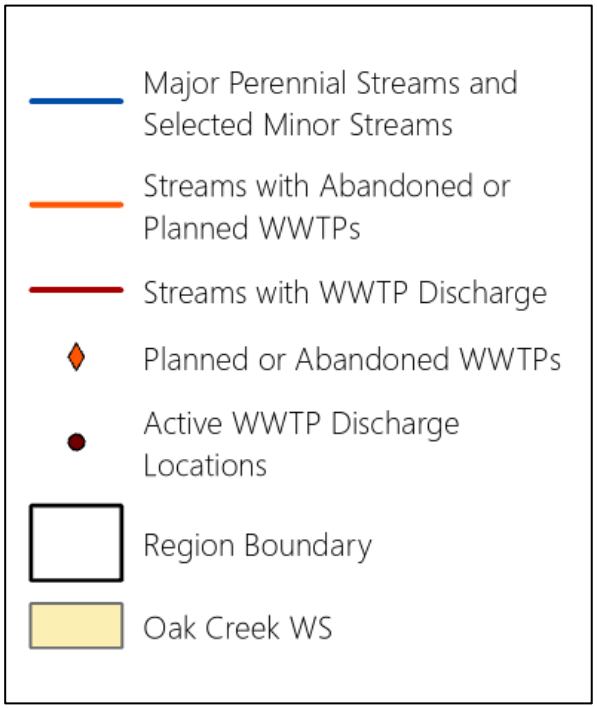


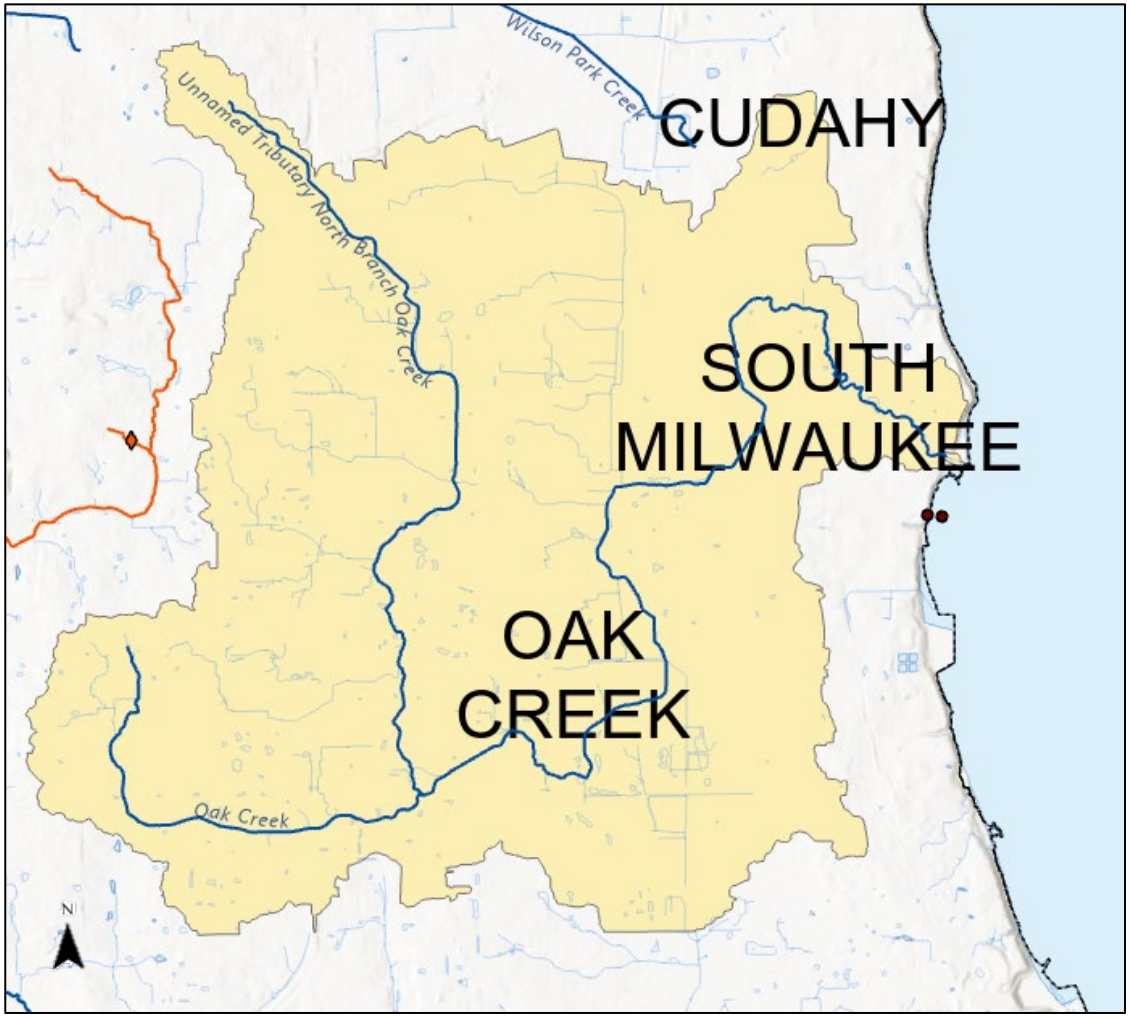
Root River Watershed - Major Streams

- Major Perennial Streams and Selected Minor Streams
- Streams with Abandoned or Planned WWTPs
- Streams with WWTP Discharge
- Planned or Abandoned WWTPs
- Active WWTP Discharge Locations
- Region Boundary
- Root River WS



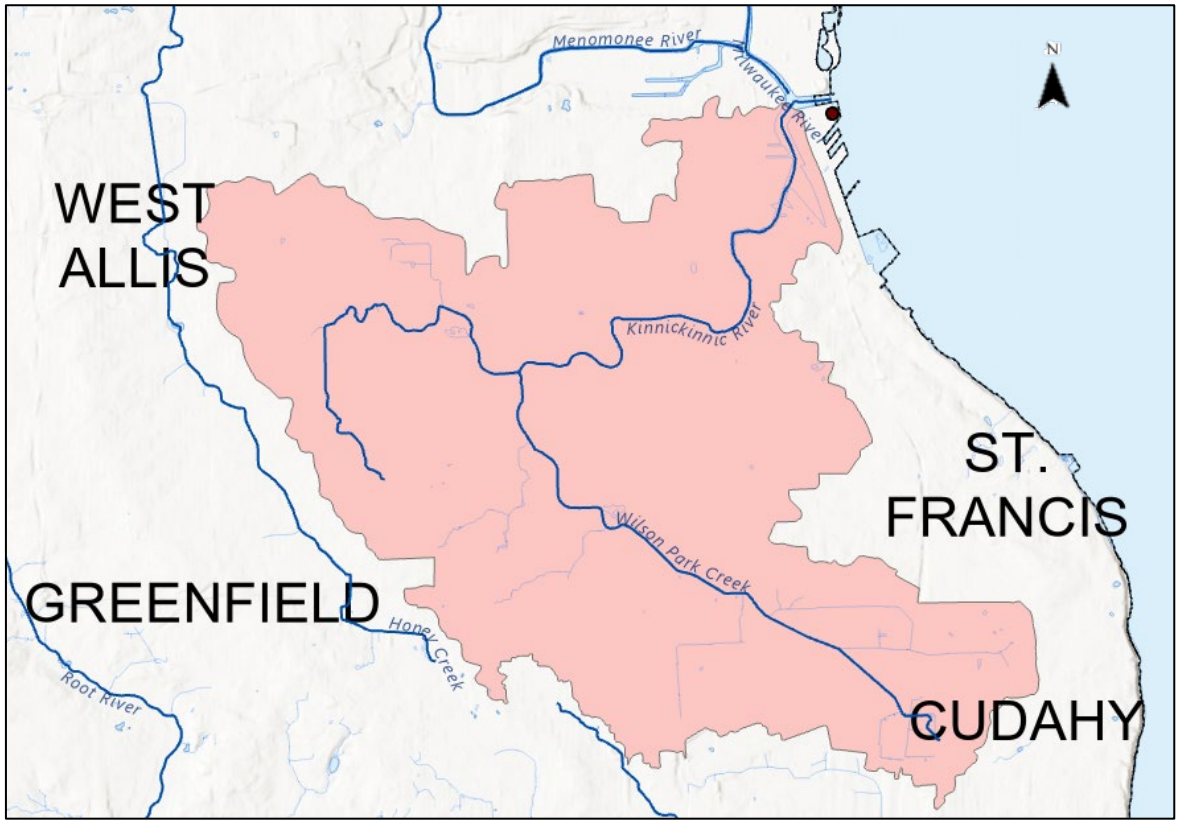
Oak Creek Watershed - Major Streams



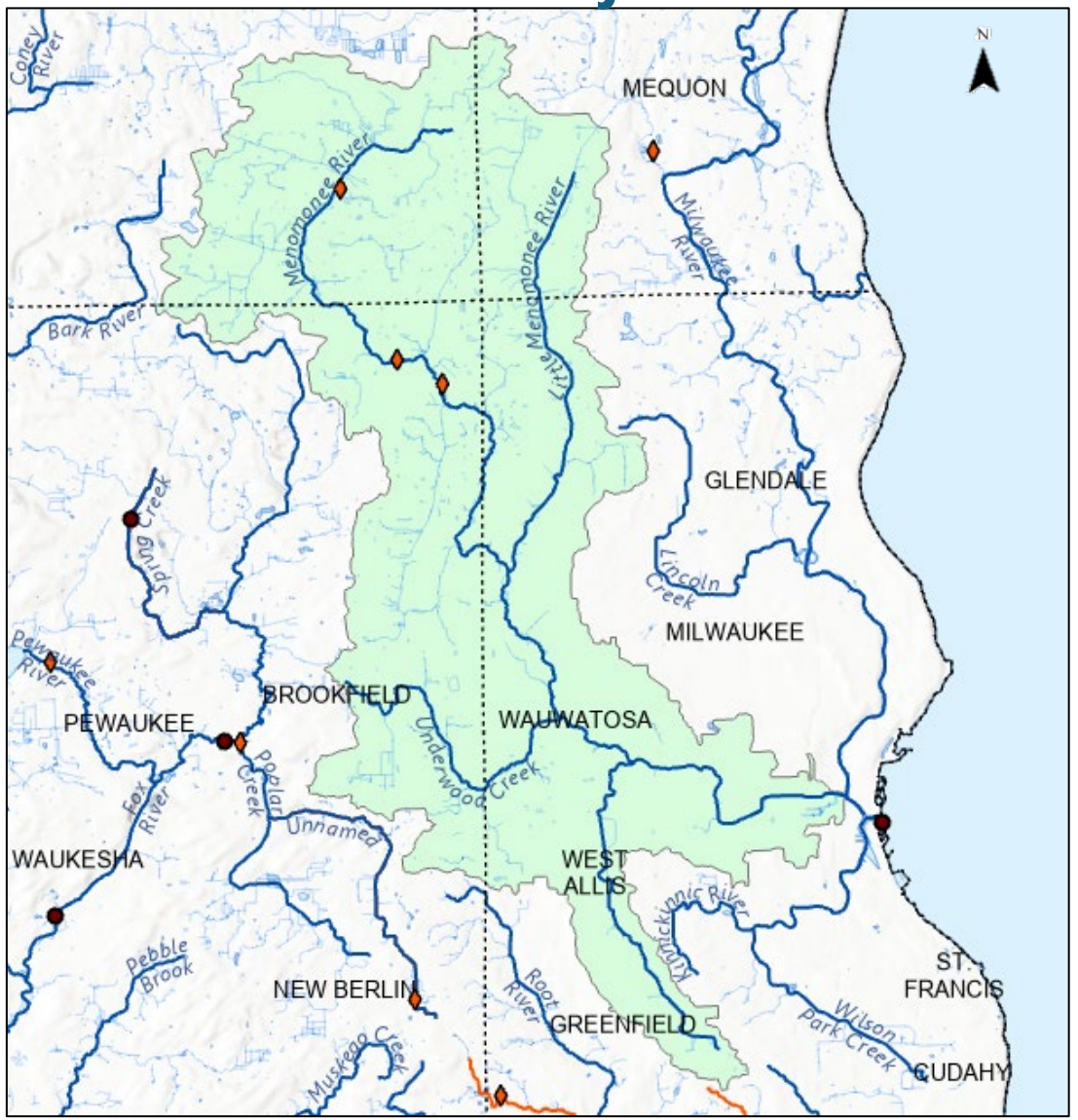


Kinnickinnic River Watershed - Major Streams

- Major Perennial Streams and Selected Minor Streams
- Streams with Abandoned or Planned WWTPs
- Streams with WWTP Discharge
- Planned or Abandoned WWTPs
- Active WWTP Discharge Locations
- Region Boundary
- Kinnickinnic River WS



Menomonee River Watershed - Major Streams



Major Perennial Streams and Selected Minor Streams

Streams with Abandoned or Planned WWTPs

Streams with WWTP Discharge

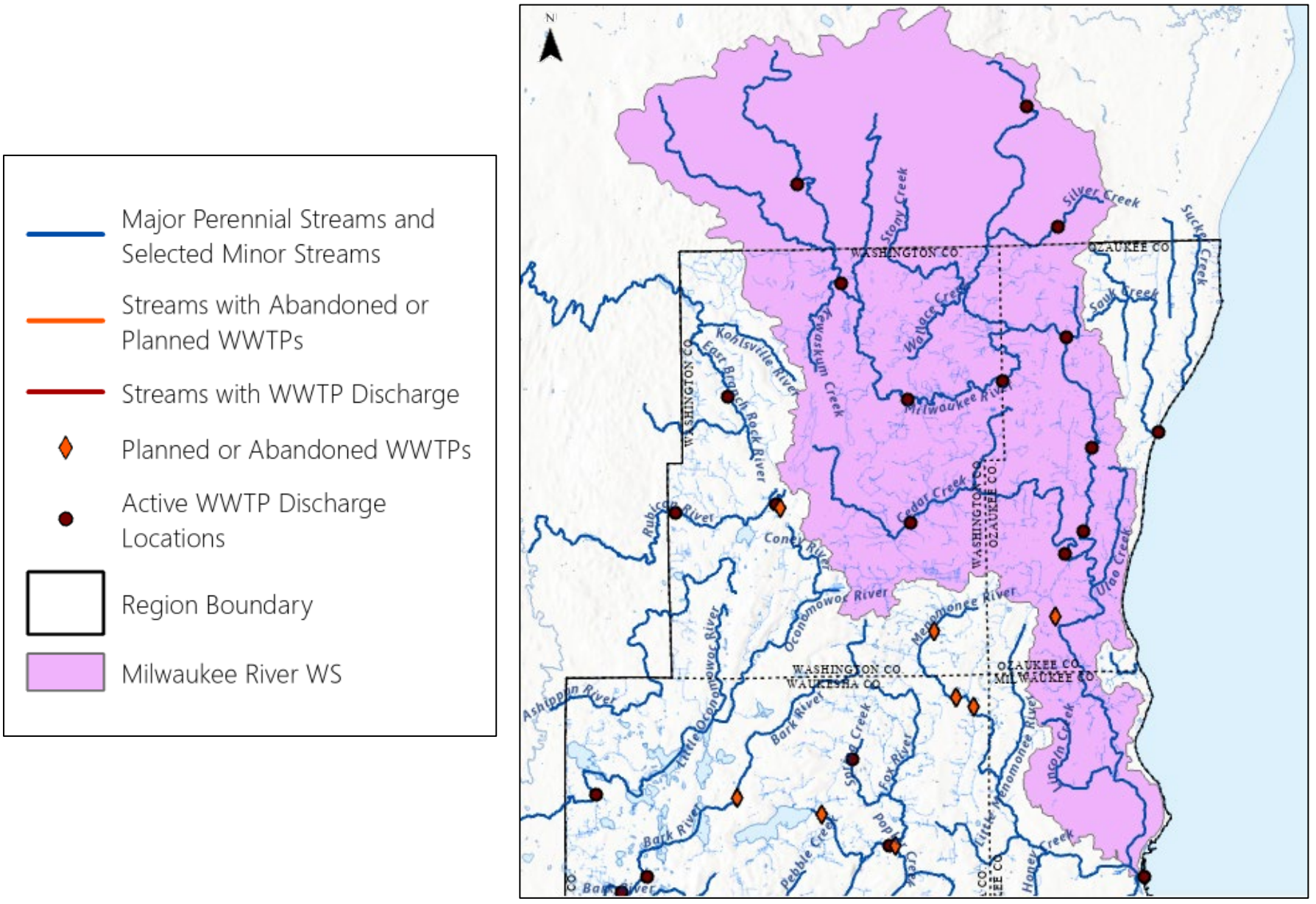
Planned or Abandoned WWTPs

Active WWTP Discharge Locations

Region Boundary

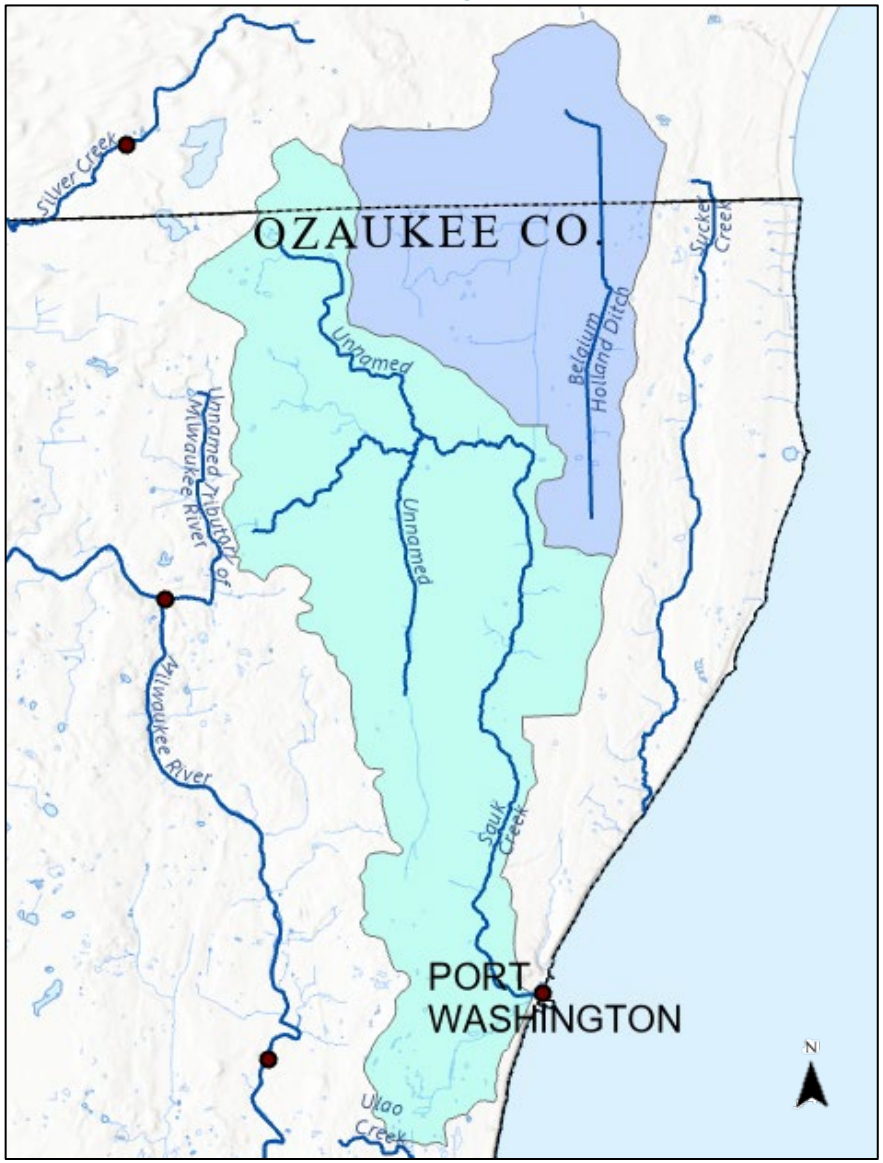
Menomonee River WS

Milwaukee River Watershed - Major Streams



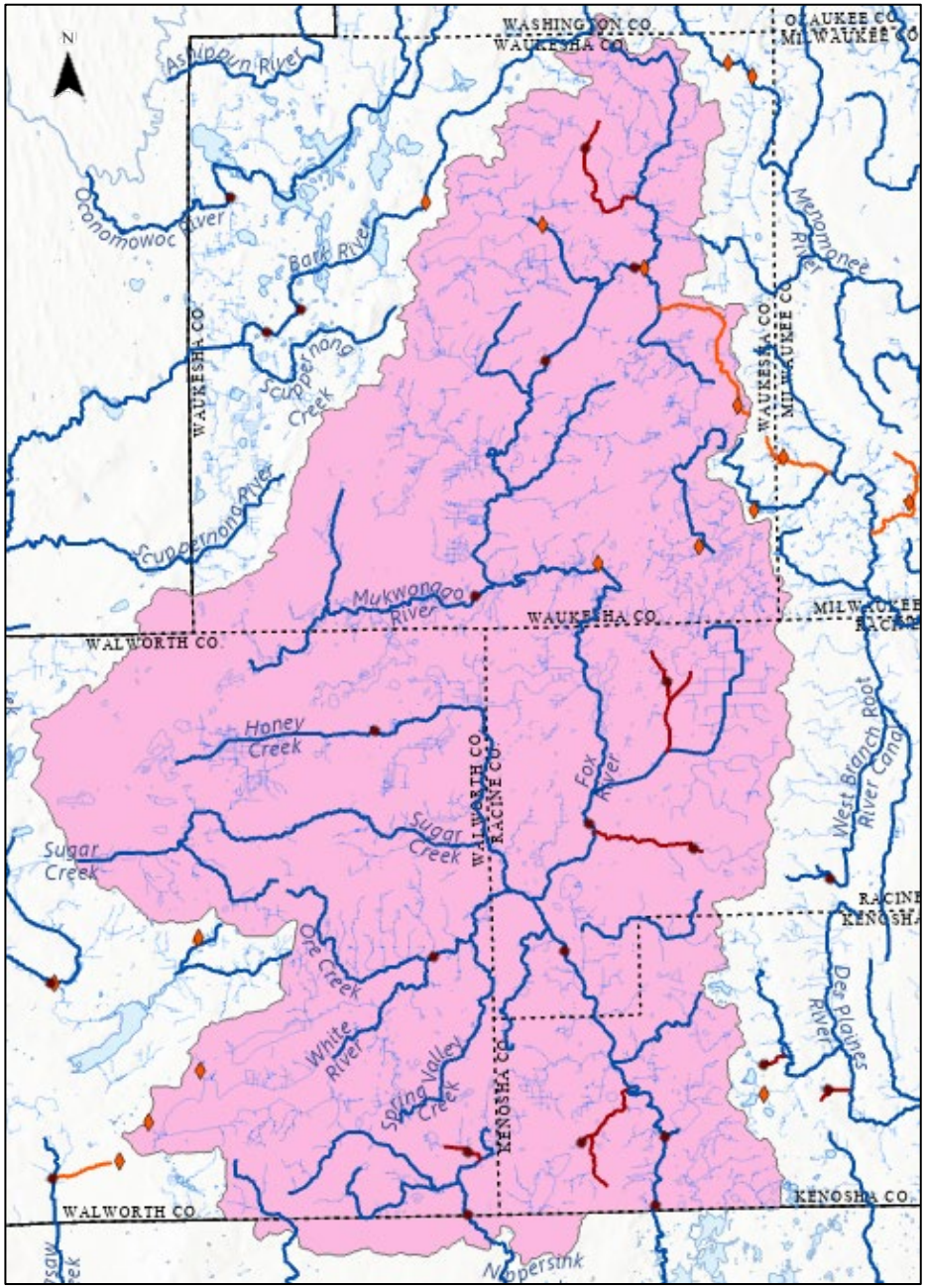
Sauk/Sheboygan Watersheds - Major Streams

- Major Perennial Streams and Selected Minor Streams
- Streams with Abandoned or Planned WWTPs
- Streams with WWTP Discharge
- Planned or Abandoned WWTPs
- Active WWTP Discharge Locations
- Region Boundary
- Sauk Creek WS
- Sheboygan River WS

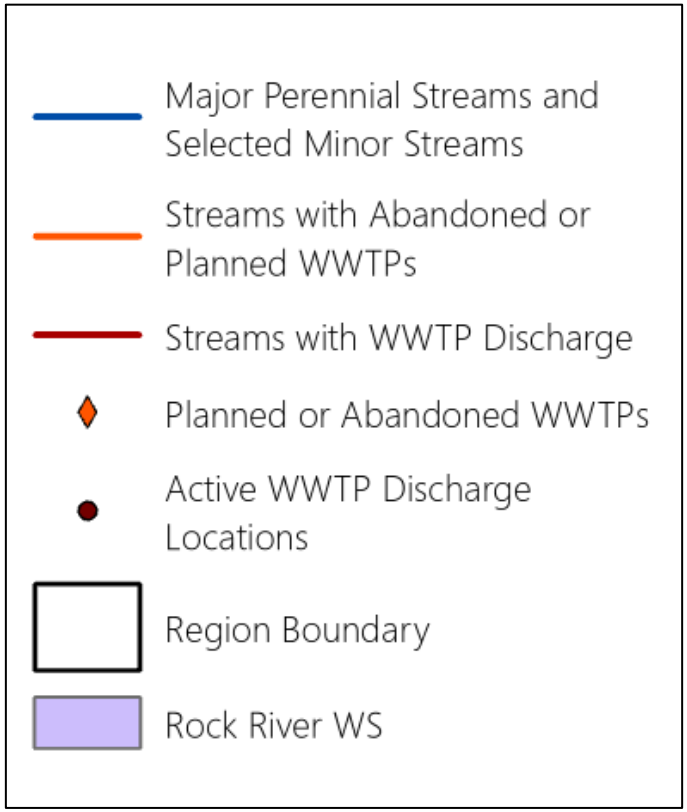


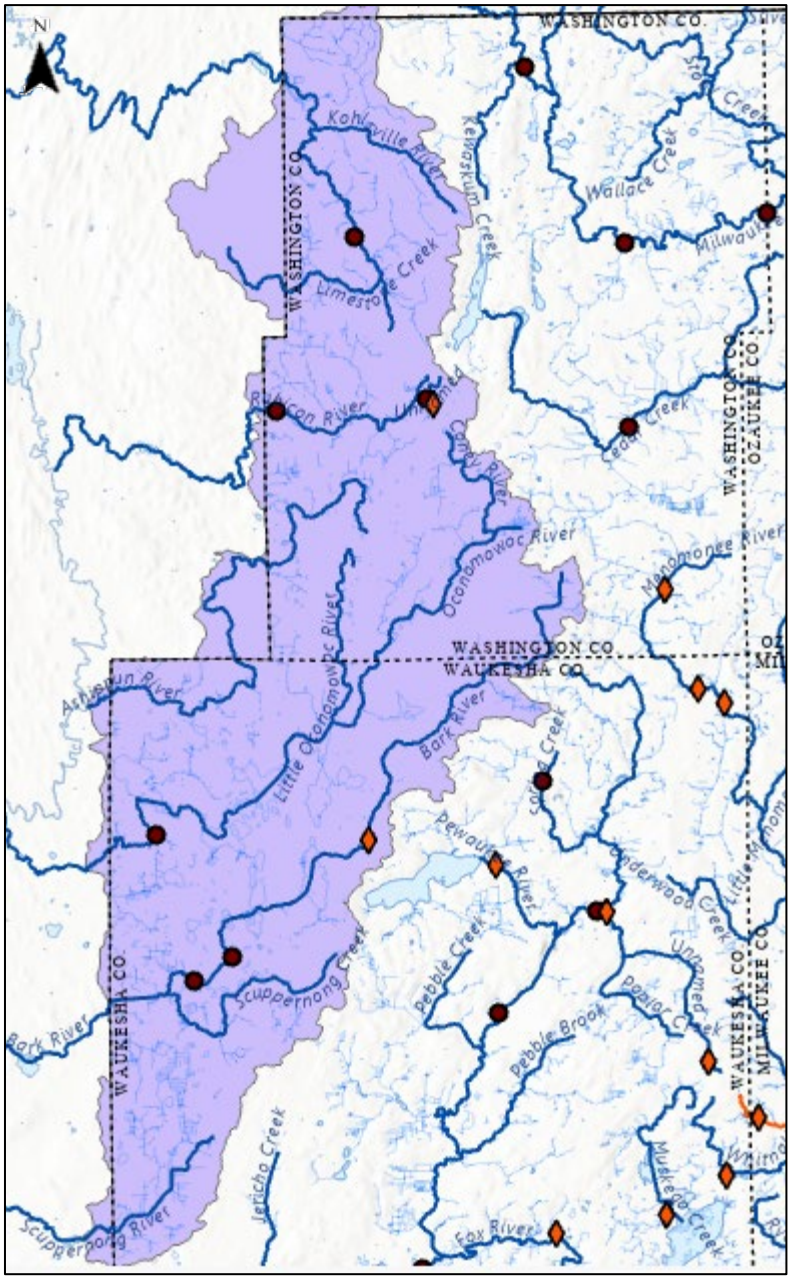
Fox River Watershed - Major Streams

- Major Perennial Streams and Selected Minor Streams
- Streams with Abandoned or Planned WWTPs
- Streams with WWTP Discharge
- Planned or Abandoned WWTPs
- Active WWTP Discharge Locations
- Region Boundary
- Fox River WS

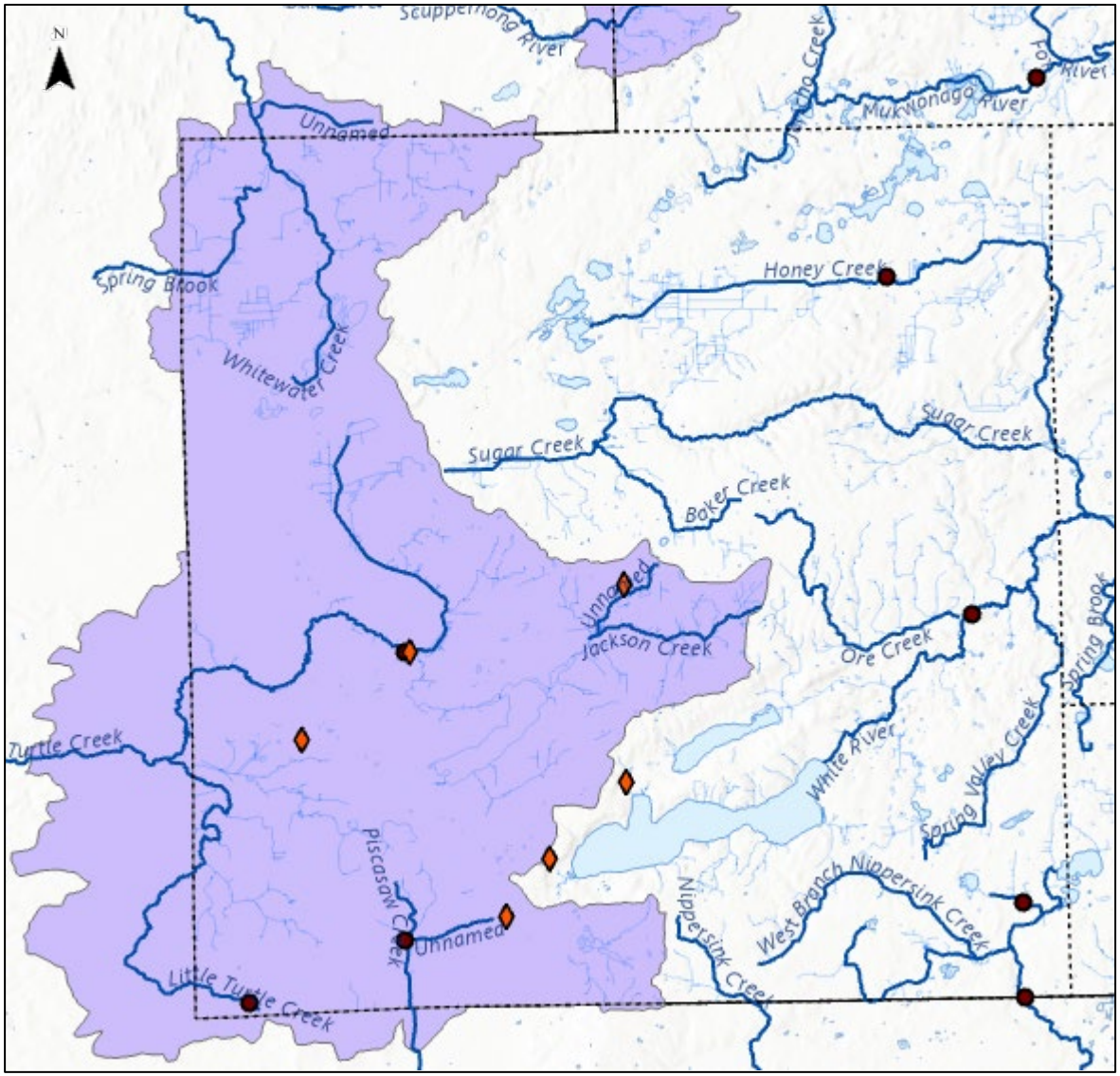


Upper Rock River Watershed - Major Streams





Middle Rock River Watershed - Major Streams



Lake MI Direct Drainage - Major Streams

Major Perennial Streams and Selected Minor Streams

Streams with Abandoned or Planned WWTPs

Streams with WWTP Discharge

Planned or Abandoned WWTPs

Active WWTP Discharge Locations

Region Boundary

Lake Michigan Direct Drainage

North

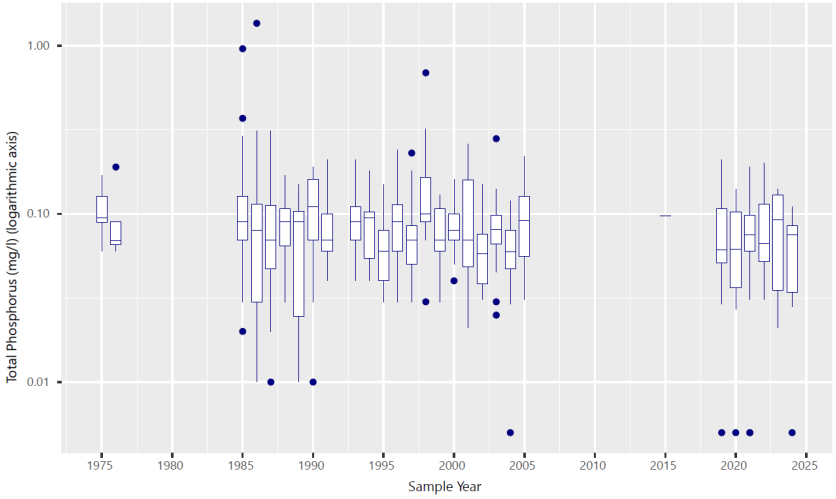
South

Regional Water Quality Assessments

- **Constituents**
  - Nutrients (N, P), Temperature, Chlorides, TSS, DO, Metals
  - Emerging Contaminants (as data and existing research allows)
    - Neonicotinoids, 6PPD-q, Pharmaceuticals, Microplastics
  - Biota (macroinvertebrates, fish)

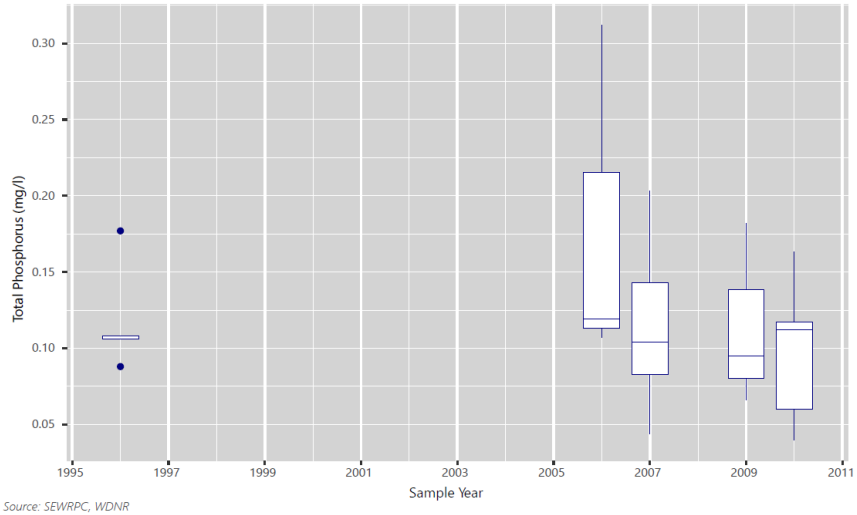
Regional Water Quality Assessments

Total Phosphorus Concentrations: Oak Creek at Pennsylvania Ave



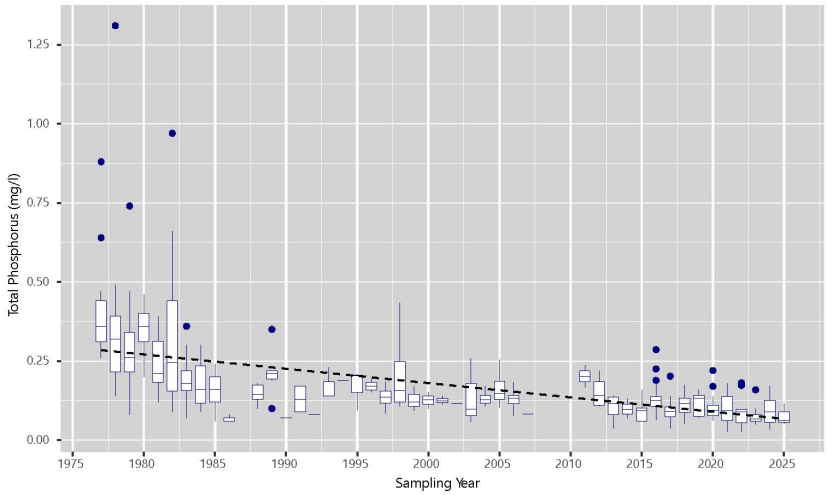
Source: SEWRPC, MMSD,WDNR

Total Phosphorus Concentrations at Pike River: County Hwy E



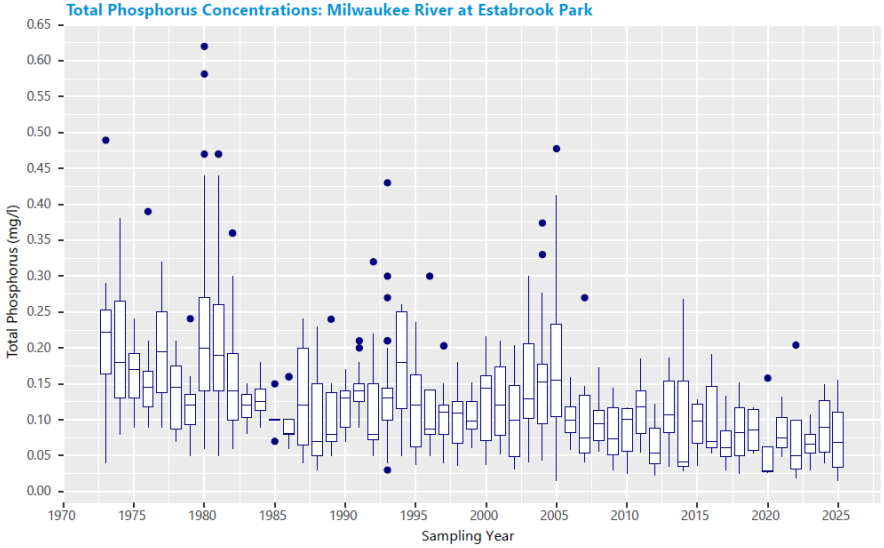
Source: SEWRPC, WDNR

Annual Total Phosphorus Concentrations at Fox River: Cth I Bridge



Source: SEWRPC, WDNR

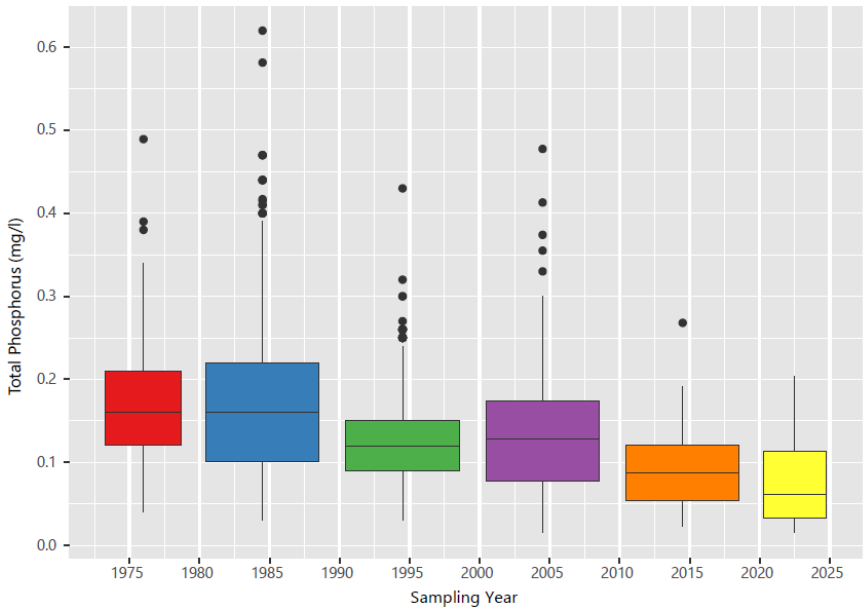
Total Phosphorus Concentrations: Milwaukee River at Estabrook Park

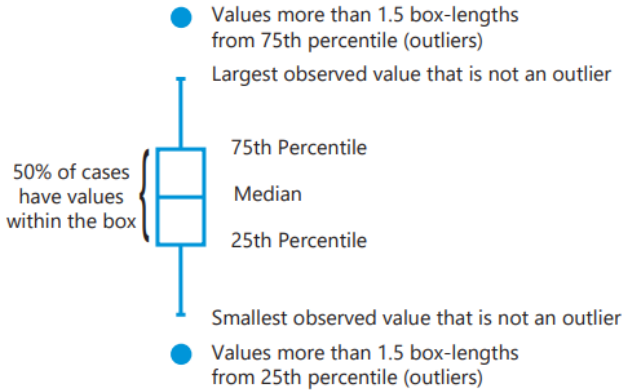


Source: SEWRPC, WDNR, MMSD

Regional Water Quality Assessments

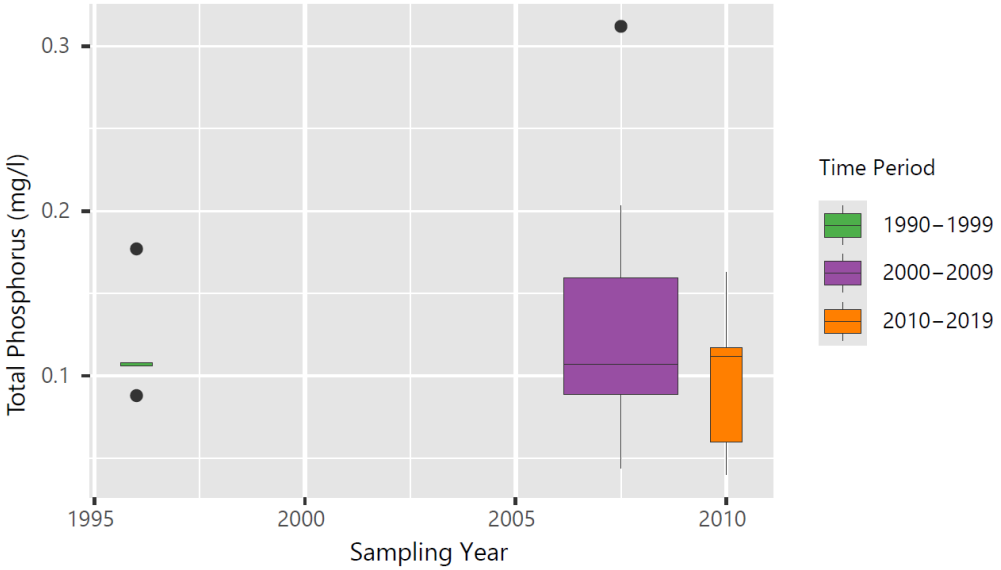
Total Phosphorus Concentrations: Milwaukee River at Estabrook Park





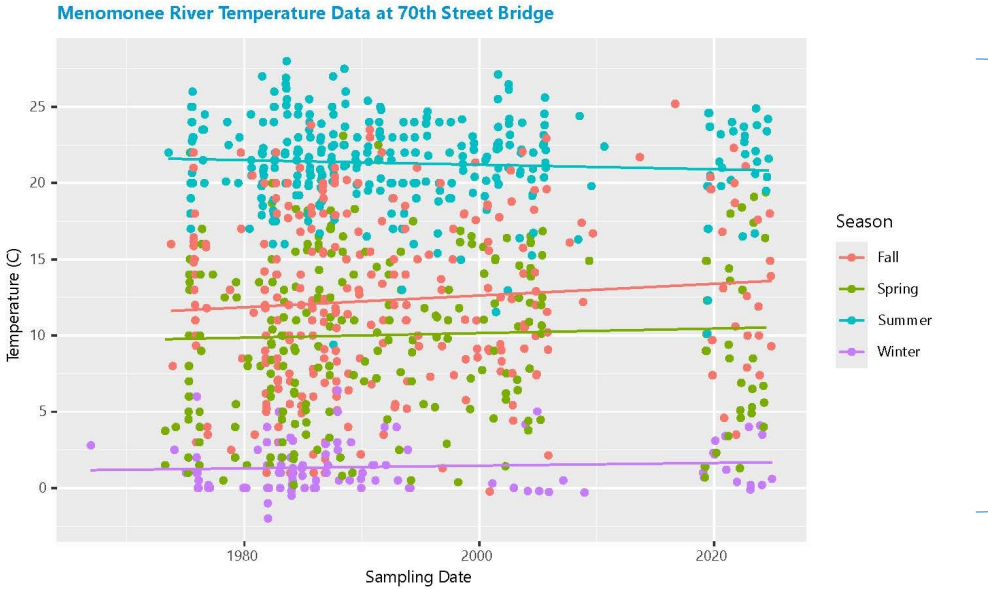
Source: SEWRPC. WDNR

Total Phosphorus Concentrations at Pike River: County Hwy

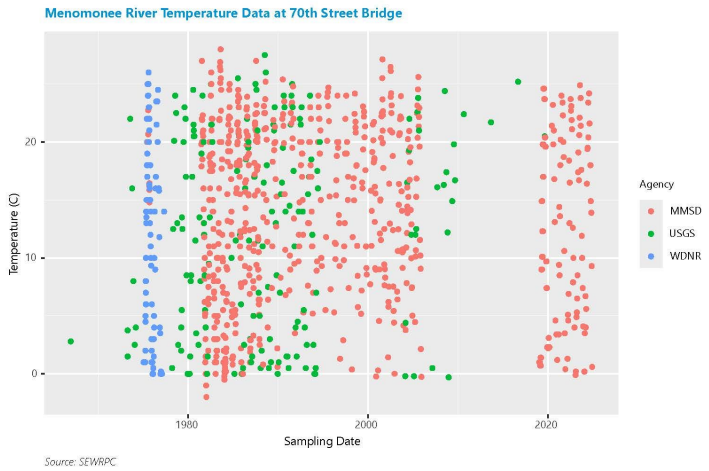


Source: SEWRPC, WDNR

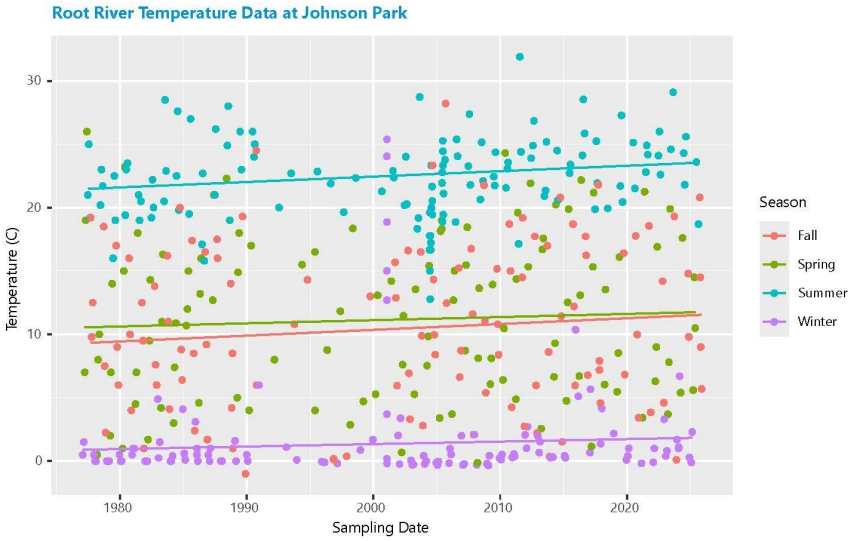
Regional Water Quality Assessments



Source: SEWRPC, WDNR, USGS, MMSD

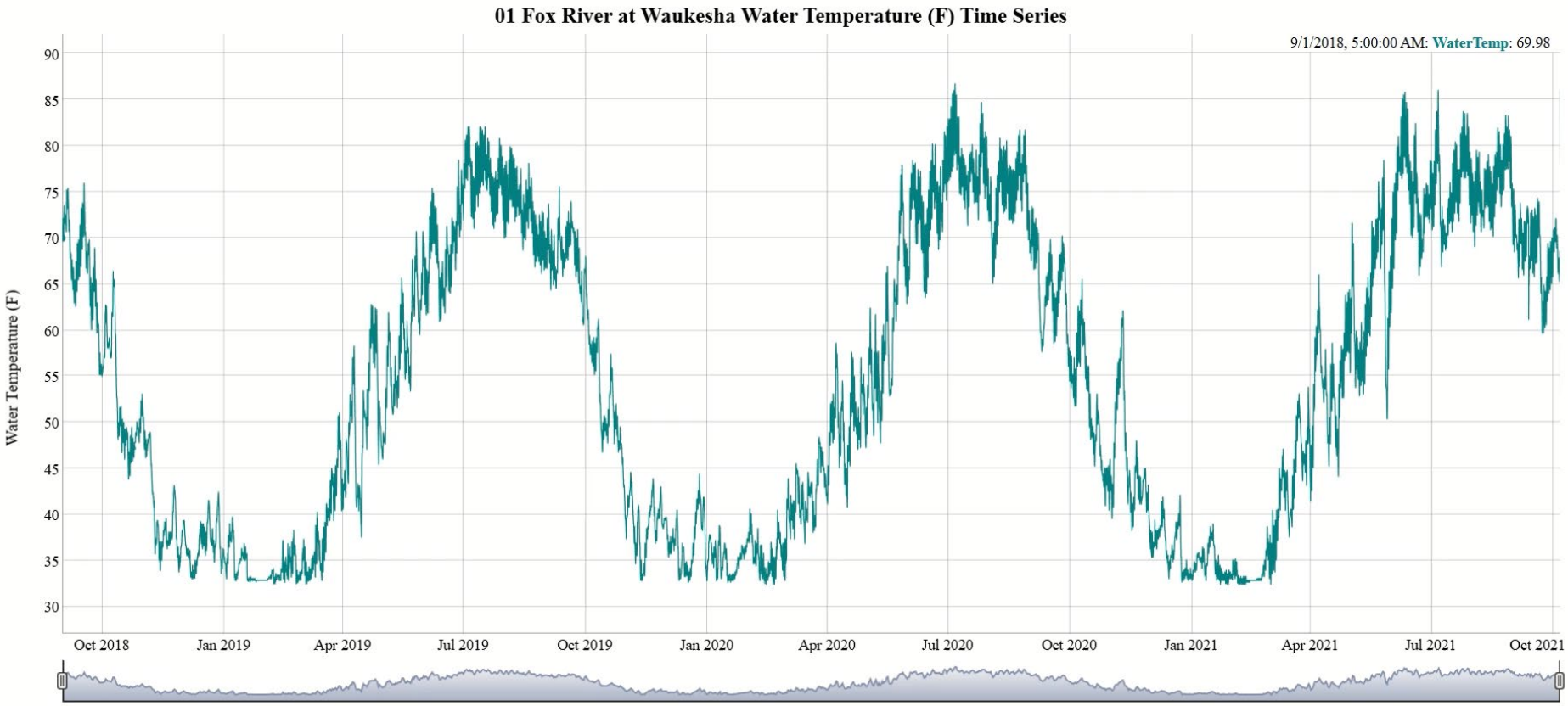


Source: SEWRPC



Source: SEWRPC, WDNR

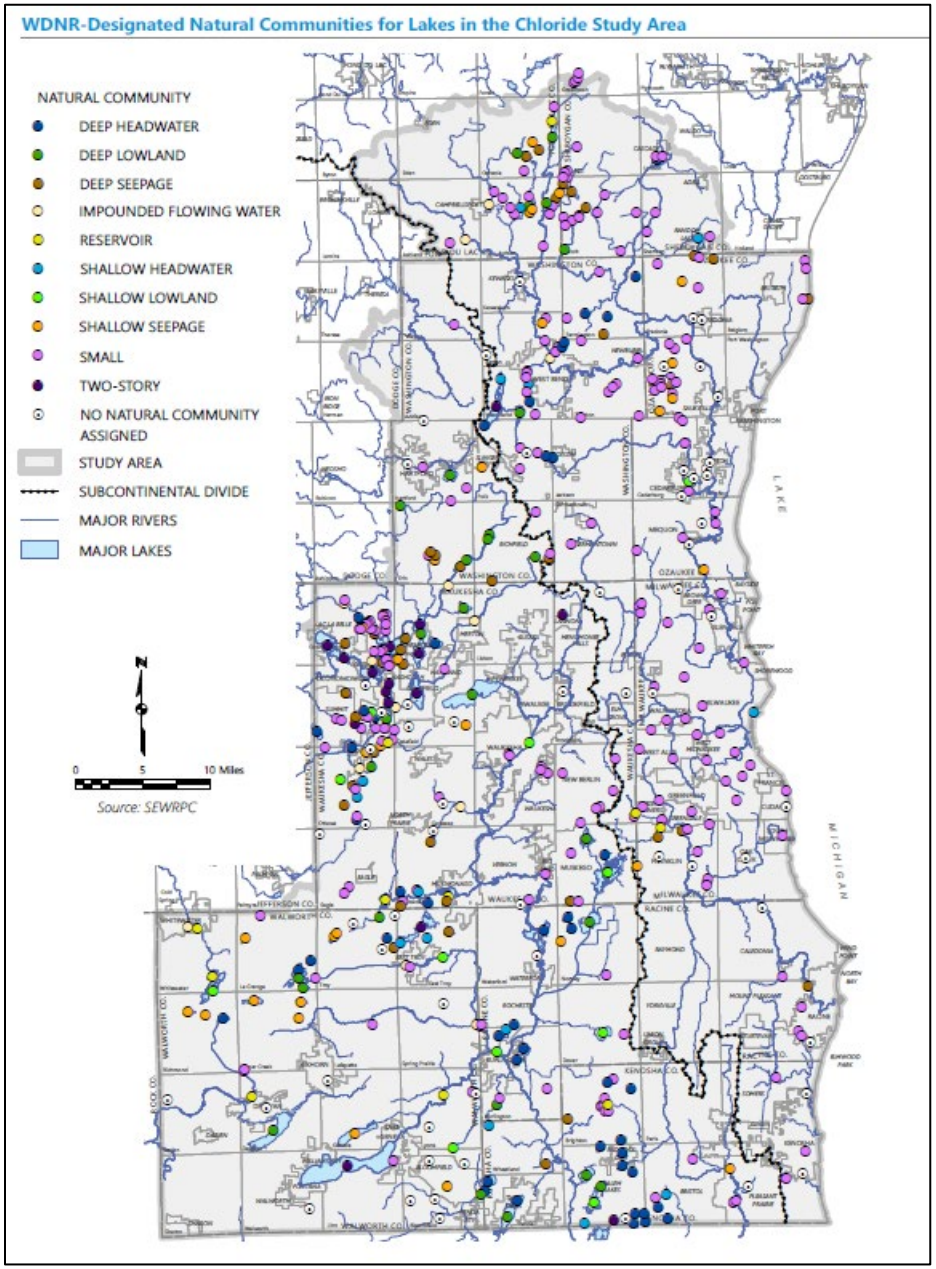
Continuous Temperature Data



Regional Water Quality Assessments

➢ Inland Lakes Water Quality

- **All** SE Wisconsin inland lakes with data
  - Majority of existing data collected on large or two-story lakes
  - Assessment of water quality in lakes missed by traditional approach of > 50 acres
  - Identification of smaller, yet Regionally significant lakes (i.e., highly used urban lakes) that lack data
  - Future monitoring recommendations for specific lakes or parameters



Source: SEWRPC

Regional Water Quality Assessments

- **Lake Water Quality Assessments**
  - Based on MMSD, USGS, and WDNR sampling intensity
  - Consistency with global lake trends
    - Browning, acidification, HABs
  - Inform current impairment status and update listings for infrequently monitored lake parameters
  - Aquatic habitat condition indicators
- **Example Lake WQ Constituents**
  - Nutrients (N, P)
  - WTSI, Chl-a, Clarity
  - DO and Temperature Profiles
  - Chlorides
  - Metals
  - *E. coli*
  - Emerging Contaminants (as data allows)
  - Aquatic vegetation

Regional Water Quality Assessments

Lake Michigan

- Main lake focus – not nearshore
- Nutrients (P), DO, Temperature, Chloride

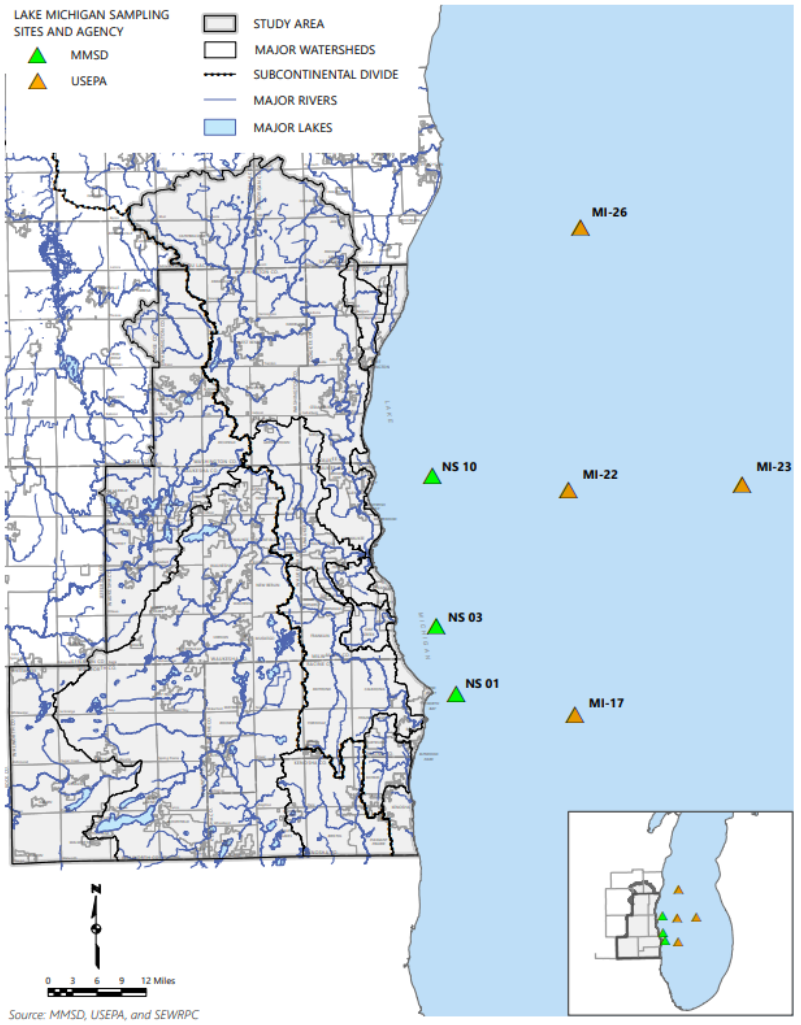
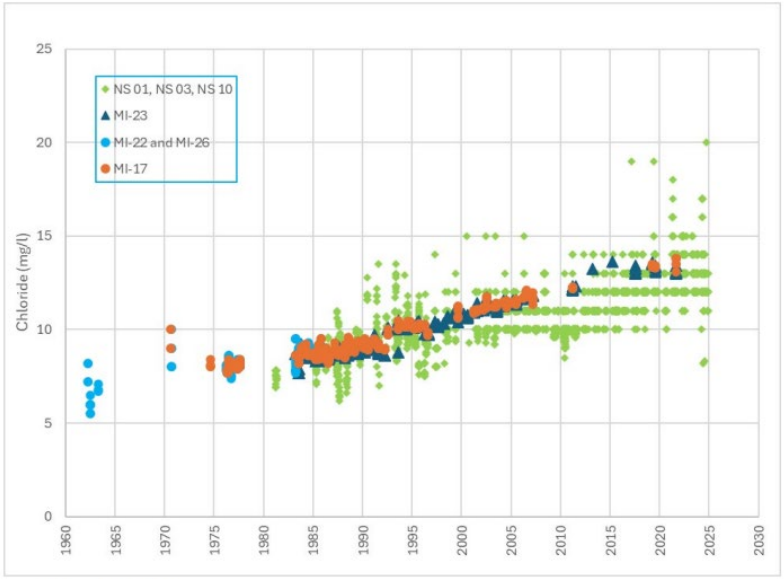


Figure 5.25
Lake Michigan Chloride Levels: 1962-2024



Source: MMSD, USEPA, SEWRPC

Regional Water Quality Assessments

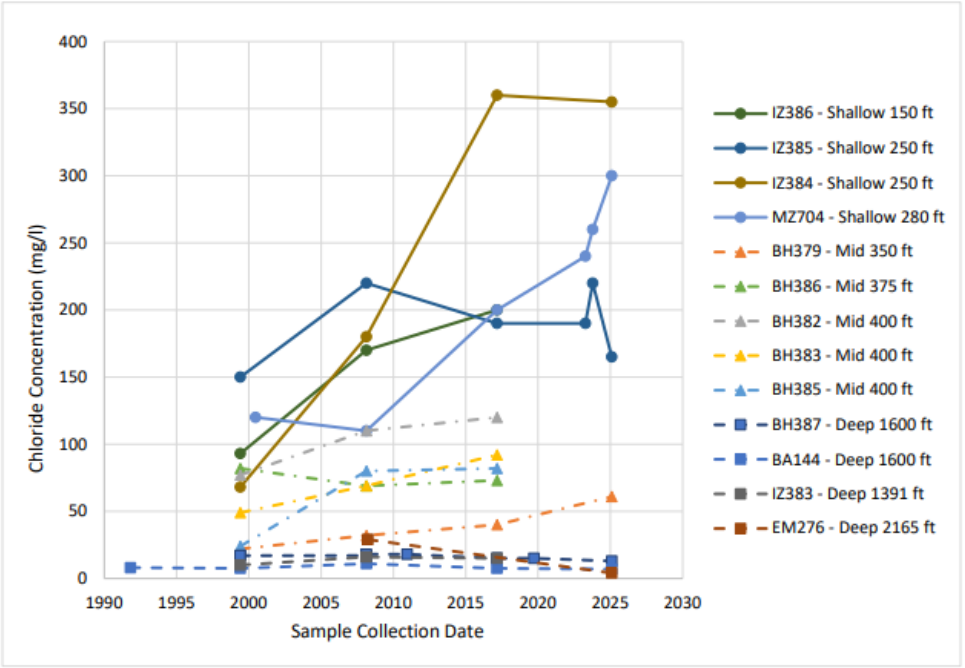
Groundwater

- Use existing datasets for Municipal wells
- Metals (iron, manganese, arsenic), Nitrate, Chloride, PFAS (where available), Sodium, Radium (deep wells)
- Wellhead protection areas

Comparison of current water quality to standards

- 303(d) and designated uses

Figure 6.12
Municipal Well Chloride Trend – City of Brookfield: 1991-2025



Source: WDNR, SEWRPC, City of Brookfield

Water Quality Inventories

- **Identify high-quality waters to protect**

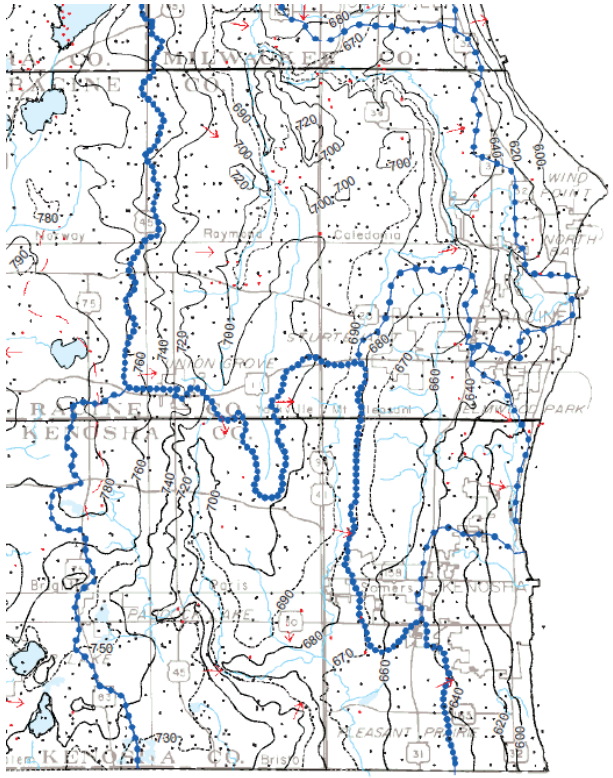
- **Conduct Connectivity/Fish Passage Inventory**
  - Crossings on major streams only
  - Use readily available inventories for Region
    - SEWRPC work
    - County bridge/culvert inventories (where available)
    - WisDOT databases
    - WDNR dams
    - Other?

Lower NB Oak Cr

SEWRPC

Water Quality Inventories

- **Update other major inventories**
  - Land Use
  - Environmental Corridors (some potentially re-delineated)
  - Soils (Hydric)
  - Coarse Riparian Buffer Analysis
  - Wisconsin Wetland Inventory
  - Potentially Restorable Wetlands
  - Groundwater Recharge Areas
  - Depth to Groundwater
  - Steep Slopes
  - Agricultural Practices
    - Drain Tile (if available)



Wastewater Treatment Inventories

Purpose of Wastewater Inventories

- Assess current wastewater treatment capabilities
- Assess current discharge impacts to the environment
- Review current sanitary area planning processes
- Assess need for combining WW plants or new plants

→ Lead to recommendations for improvements

Wastewater Treatment Inventories

➢ Complete Public WWTP inventory

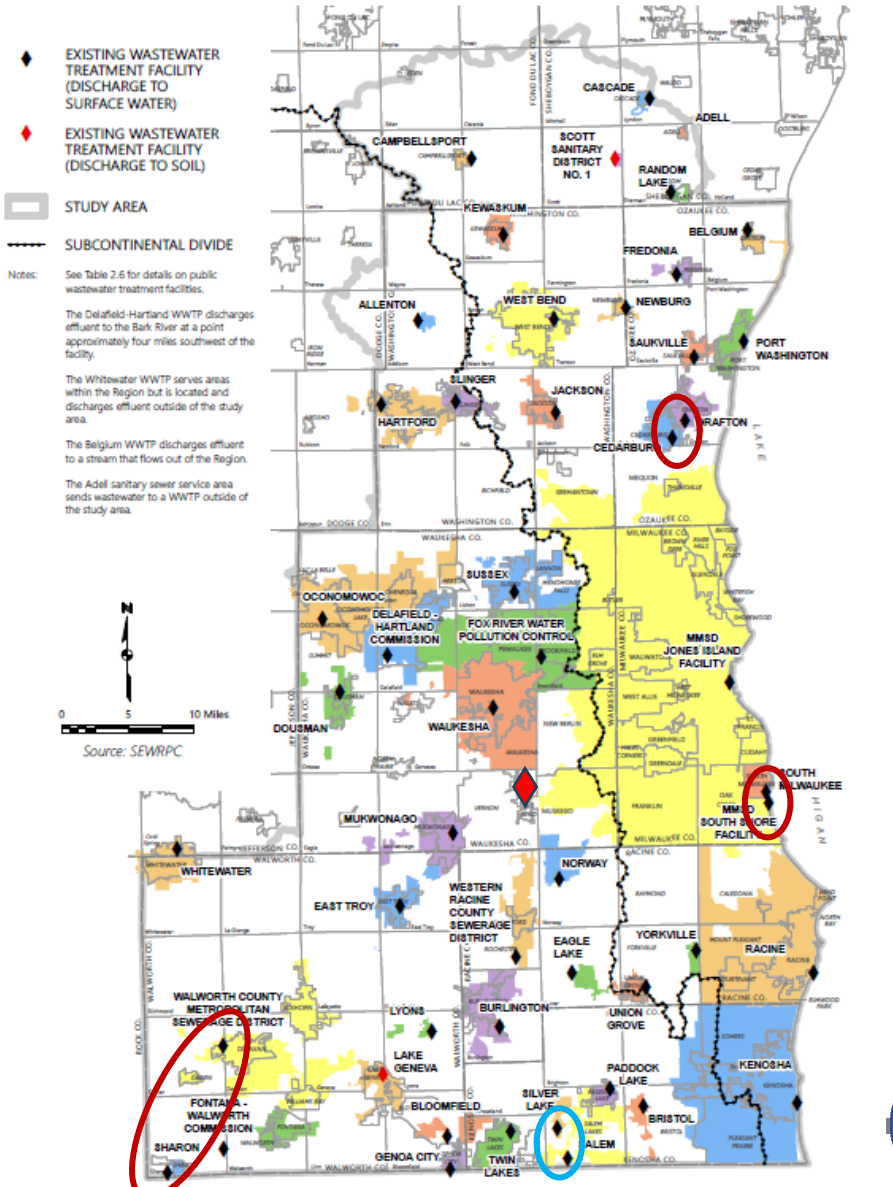
- Plant size, discharge, processes, variances, sludge management
- Discharge BOD_5, TSS, Chlorides, Phosphorus, pH, *E. coli*
- Opportunities for regionalization (combining of plants)

Treatment Plant	County	Solids Handling Process
Kenosha Wastewater Treatment Plant	Kenosha	Land application
MMSD	Milwaukee	Milorganite fertilizer
Racine Wastewater Treatment Plant	Racine	Land application
West Bend Waste Water Plant	Washington	Landfill for semi-solid cakes and land application for liquids
Waukesha Clean Water Plant	Waukesha	Land application
Fox River Water Pollution Control Center	Waukesha	Land application
Delafield-Hartland Water Pollution Control Commission	Waukesha	Land application
Village of Mukwonago Wastewater Treatment Plant	Waukesha	Hauled to another permitted facility
Oconomowoc Wastewater Facility	Waukesha	Land application

Wastewater Treatment Inventories

- **Opportunities for Regionalization**
- **Big Bend WWTP**
  - One remaining plant recommended in PR30 yet to be built

Map 2.6
Planned Sanitary Sewer Service Areas Grouped by Existing Public Wastewater Treatment Facility Operator Within the Study Area



Wastewater Treatment Inventories

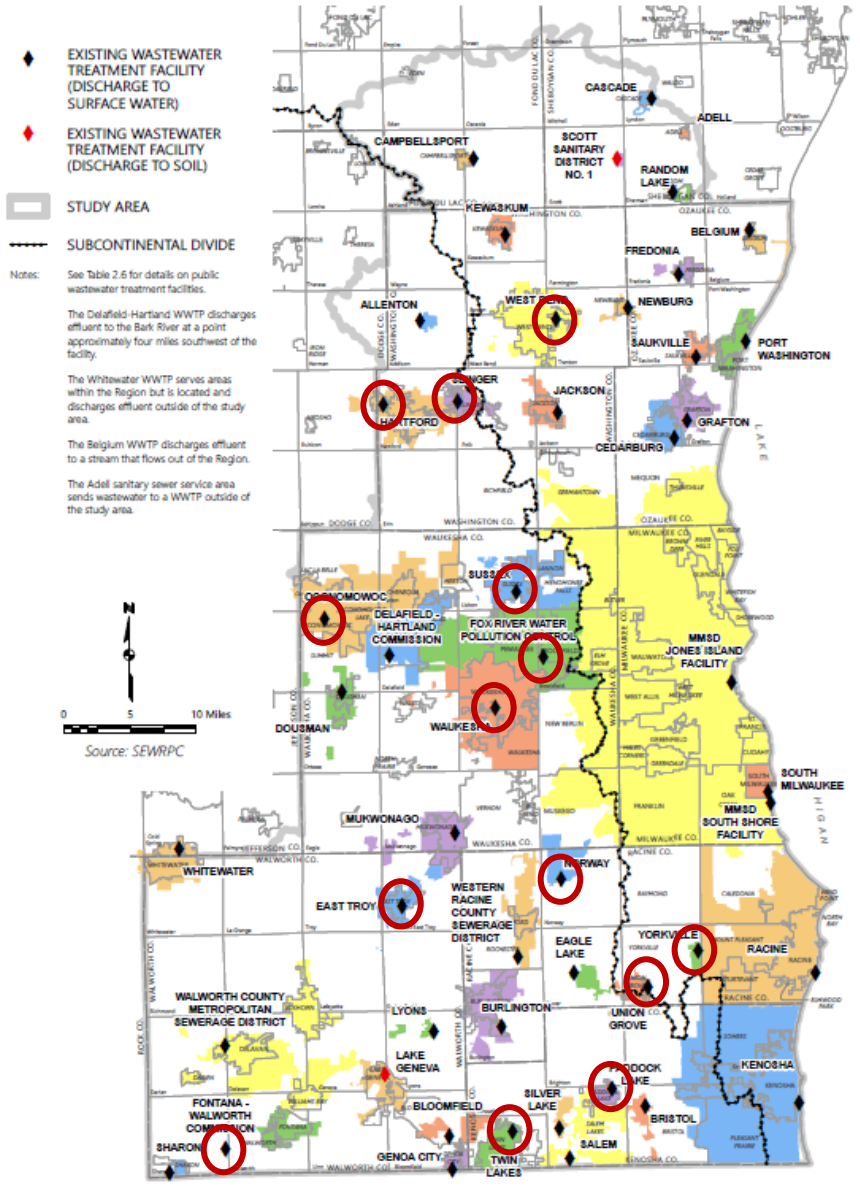
- **14 Plants under a Chloride Variance as of Jan 2024**

Table 3.1
Facilities in Southeastern Wisconsin with Individual Chloride Variances: January 2024

Facility Name	Permit Number	County
City of Brookfield	0023469-09	Waukesha
East Troy Wastewater Treatment Facility	0020397-10	Walworth
Fontana-Walworth Water Pollution Control Commission	0036021-07	Walworth
Hartford Water Pollution Control Facility	0020192-09	Washington
Norway Sanitary District No. 1	0031470-08	Racine
Oconomowoc Wastewater Treatment Plant	0021181-09	Waukesha
Paddock Lake Wastewater Treatment Facility	0025062-10	Kenosha
Slinger Wastewater Treatment Facility	0020290-10	Washington
Sussex Wastewater Treatment Facility	0020559-08	Waukesha
Twin Lakes Wastewater Treatment Facility	0021695-10	Kenosha
Village of Union Grove	0028291-10	Racine
City of Waukesha	0029971-09	Waukesha
City of West Bend	0025763-11	Washington
Yorkville Sewer Utility District No. 1	0029831-09	Racine

Source: Wisconsin Department of Natural Resources

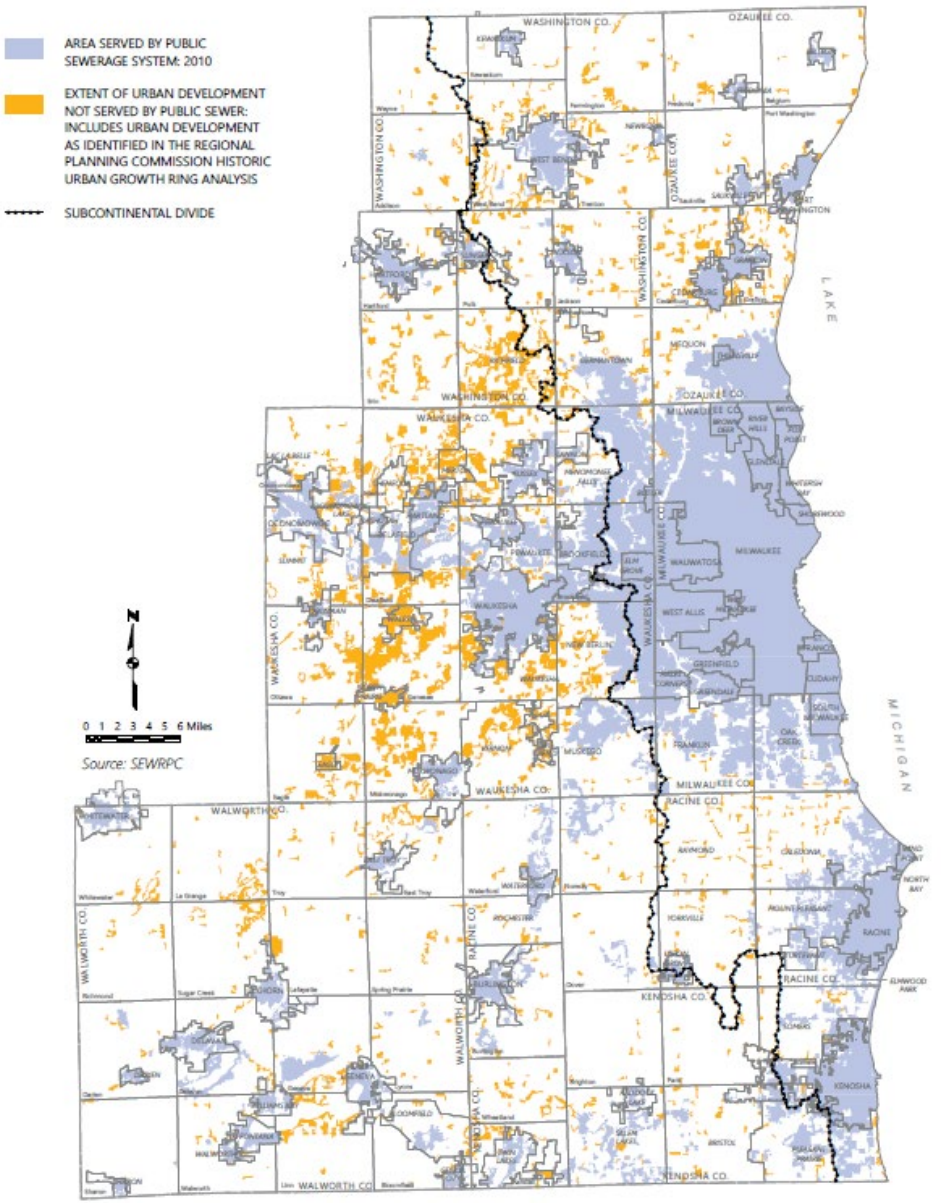
Map 2.6
Planned Sanitary Sewer Service Areas Grouped by Existing Public Wastewater Treatment Facility Operator Within the Study Area



Wastewater Treatment Inventories

- **Summary of methods used by WWTPs in the Region to meet nutrient limits**
  - Water quality trading, adaptive management, multi-discharger variance program (WDNR Ecosystem Services Marketplace Clearinghouse)
- **Inventory of POWTS (septic systems) – areas in orange on map are as of 2010**

Map 2.7
Areas Served by Public Sanitary Sewerage Systems in the Region: 2010

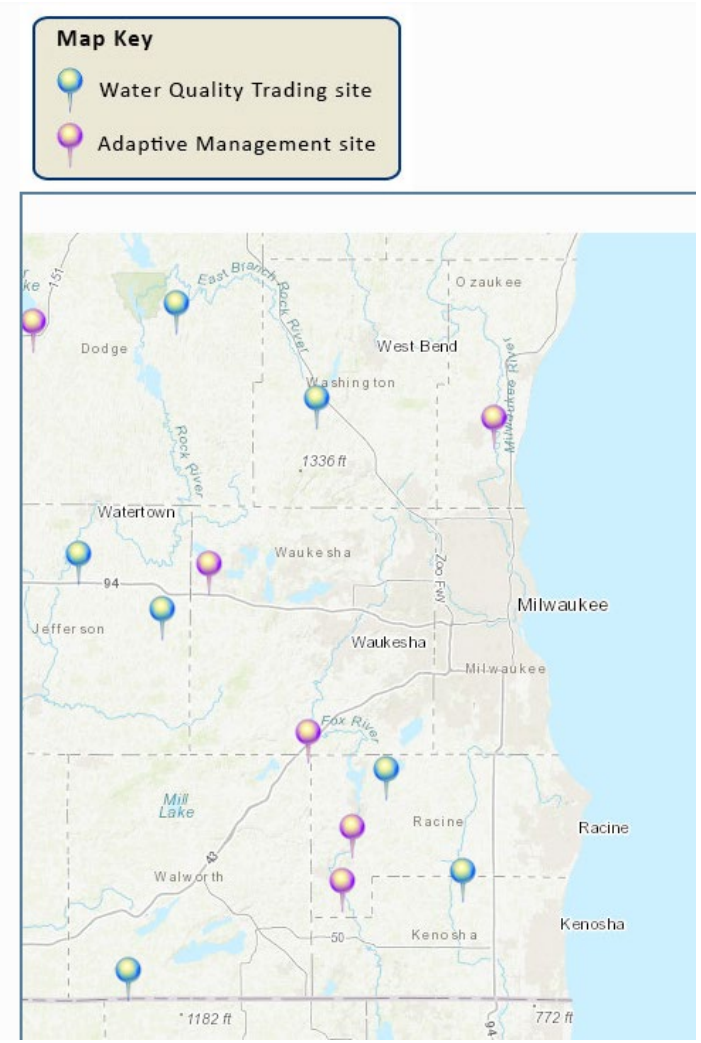


Wastewater Treatment Inventories

Phosphorus Discharge Offsets

- **Adaptive Management**
  - Burlington
  - Grafton
  - Mukwonago
  - Oconomowoc
  - Western Racine Co

- **Water Quality Trading**
  - Fontana Walworth
  - Norway SD No. 1
  - Slinger



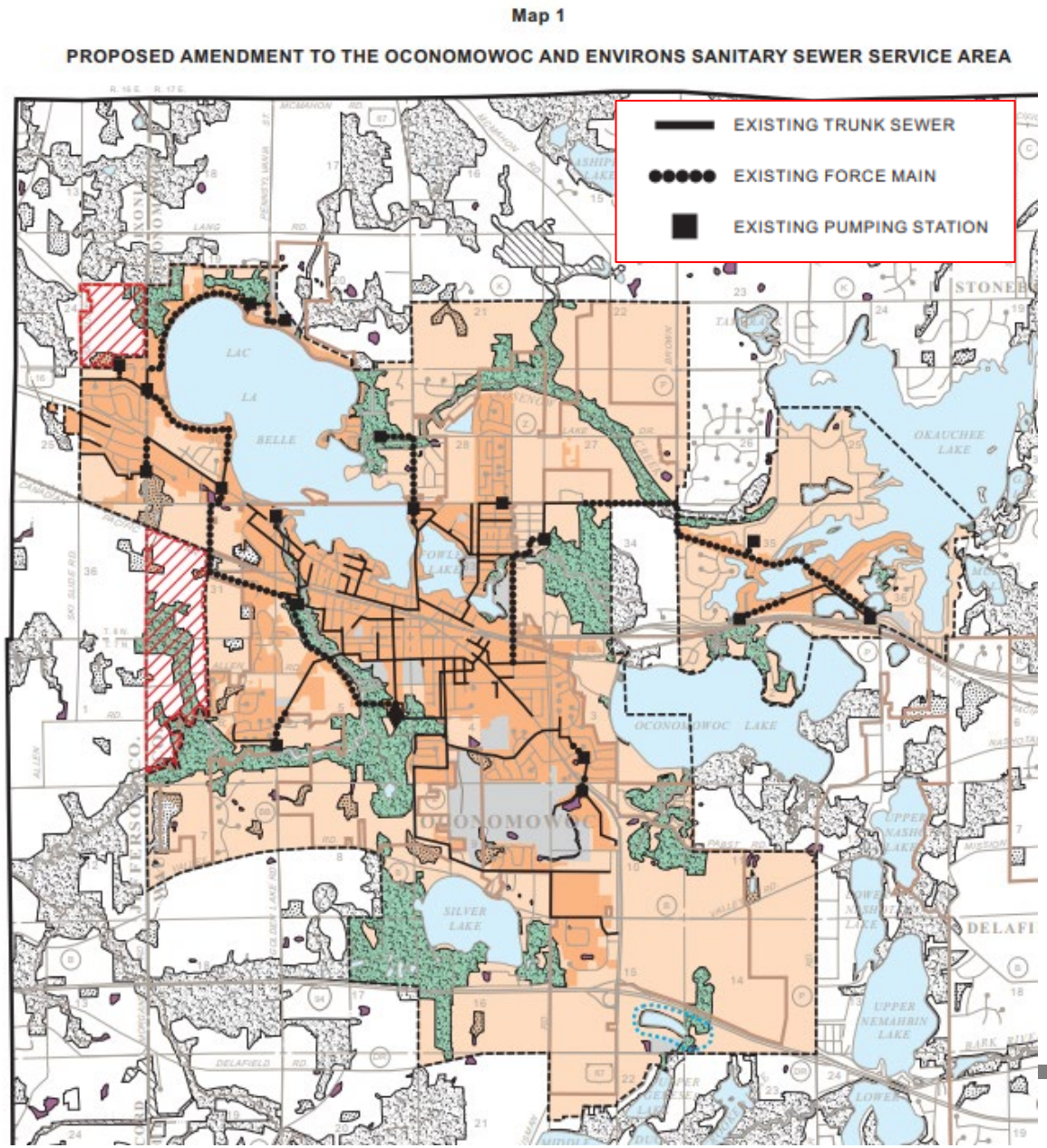
WDNR

Sanitary Sewer Service Area (SSSA) Inventories

- **Status of SSA Planning, SSA Plan Updates and Amendments**
  - Summarize process and procedures
  - Recommend improvements
- **Status of SSA Planning and Primary/Secondary Environmental Corridors, and Isolated Natural Resource Areas in the Region**
  - Use updated 2020 PEC, SEC, INRA Inventories
- **Sanitary sewer extension review**
  - Provide language for encroaching on steep slopes
  - Provide language for review of private sanitary sewers
  - Provide guidance for when development encroaches into corridors
- **Update inventory of existing sanitary sewers (Areas Served in 2020)**

SSSA Inventories

- **Example map of last update to Oconomowoc SSSA (2005)**
  - 20-year planning area boundary
  - Environmental corridors (not developable)
  - Current main sanitary sewer system



Next Steps

➢ Three additional meetings in 2026

- Tentatively May, August, October

➢ Prospectus finished December 2026

➢ Next meeting

- Continue scope discussion
  - Review major sources of pollution
  - Discuss recommendations for a path forward

Meeting agendas, presentations, and summary notes along with draft prospectus text will be posted on our website

www.sewrpc.org/Regional-Planning/Water-Quality

Thank You

Laura Herrick | Chief Environmental Engineer

lherrick@sewrpc.org | 262.953.3224

www.sewrpc.org/Regional-Planning/Water-Quality

SEWRPC.org /SEWRPC @SEW_RPC