



Water Resources Monitoring and Assessment 2023 Update

Environmental Committee Informational Item





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and Assessment Work

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Water Resources Section Overview



Rivers & Streams

Surface Water Planning

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Water Supply Planning

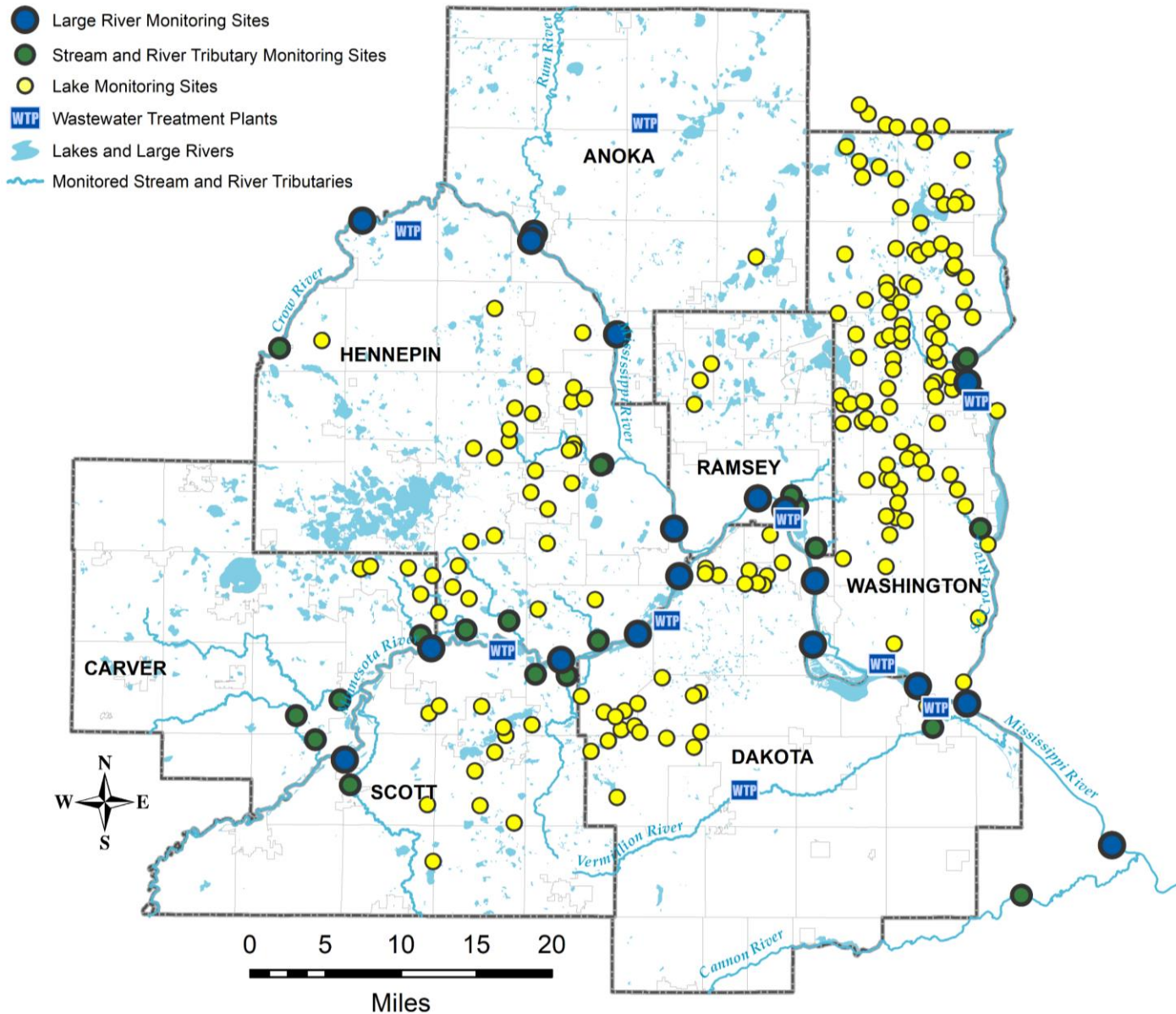
Data Management

Water Policy

Facility Monitoring

Outreach &
Collaboration

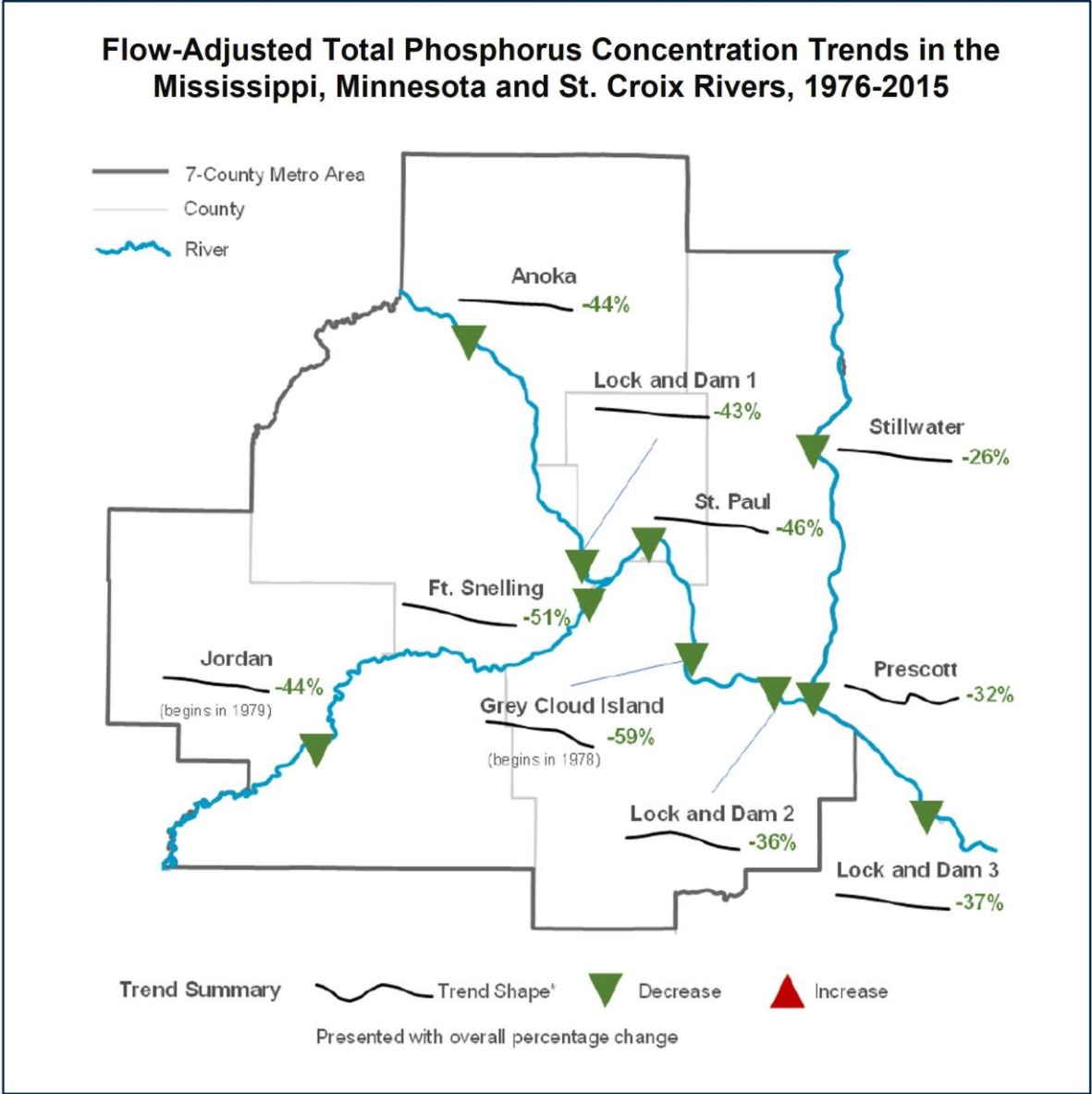
River and Stream Monitoring



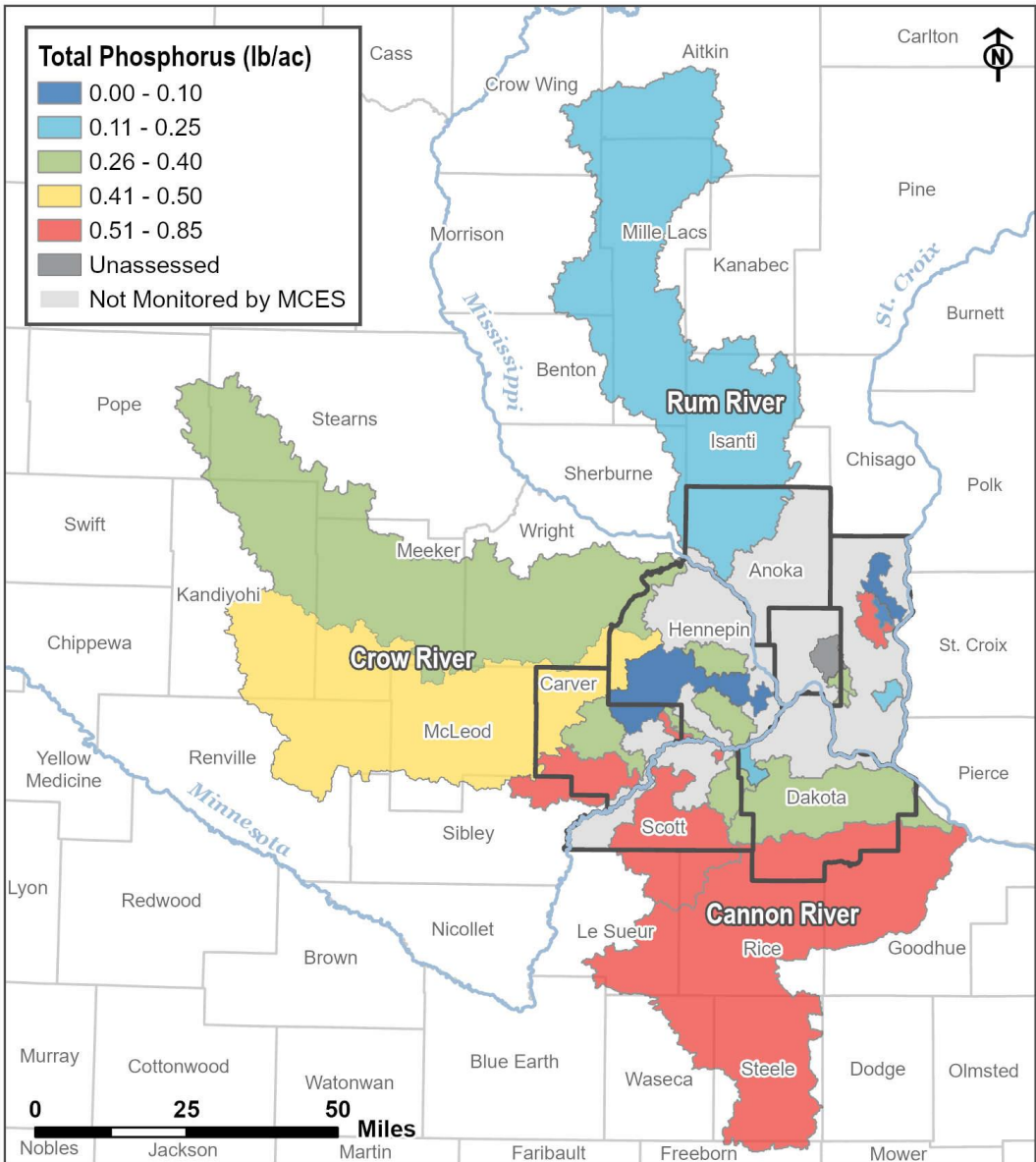
- Large River program had start in 1920's, more intensive since 1976
 - Floating sewage mats in our regional rivers
 - Only 3 fish found between Minneapolis and Hastings
- Tributary rivers and streams monitoring began in 1989 and expanded over the years with regional monitoring partnership agreements

River and Stream Assessments

Long Term Trends



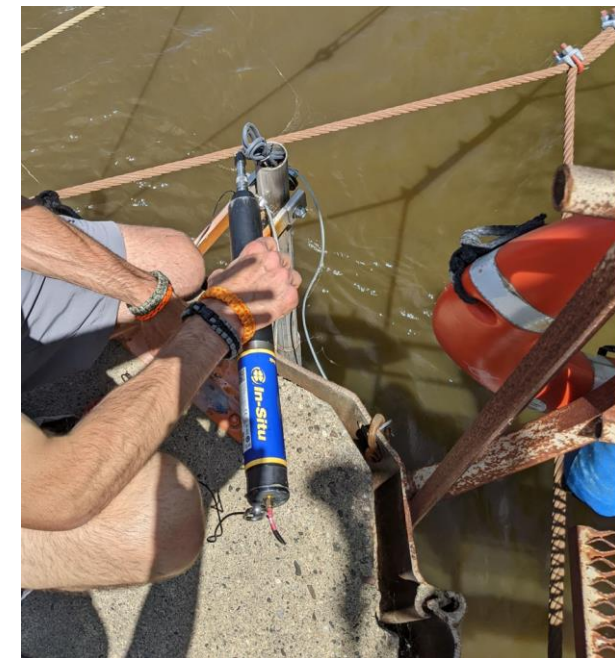
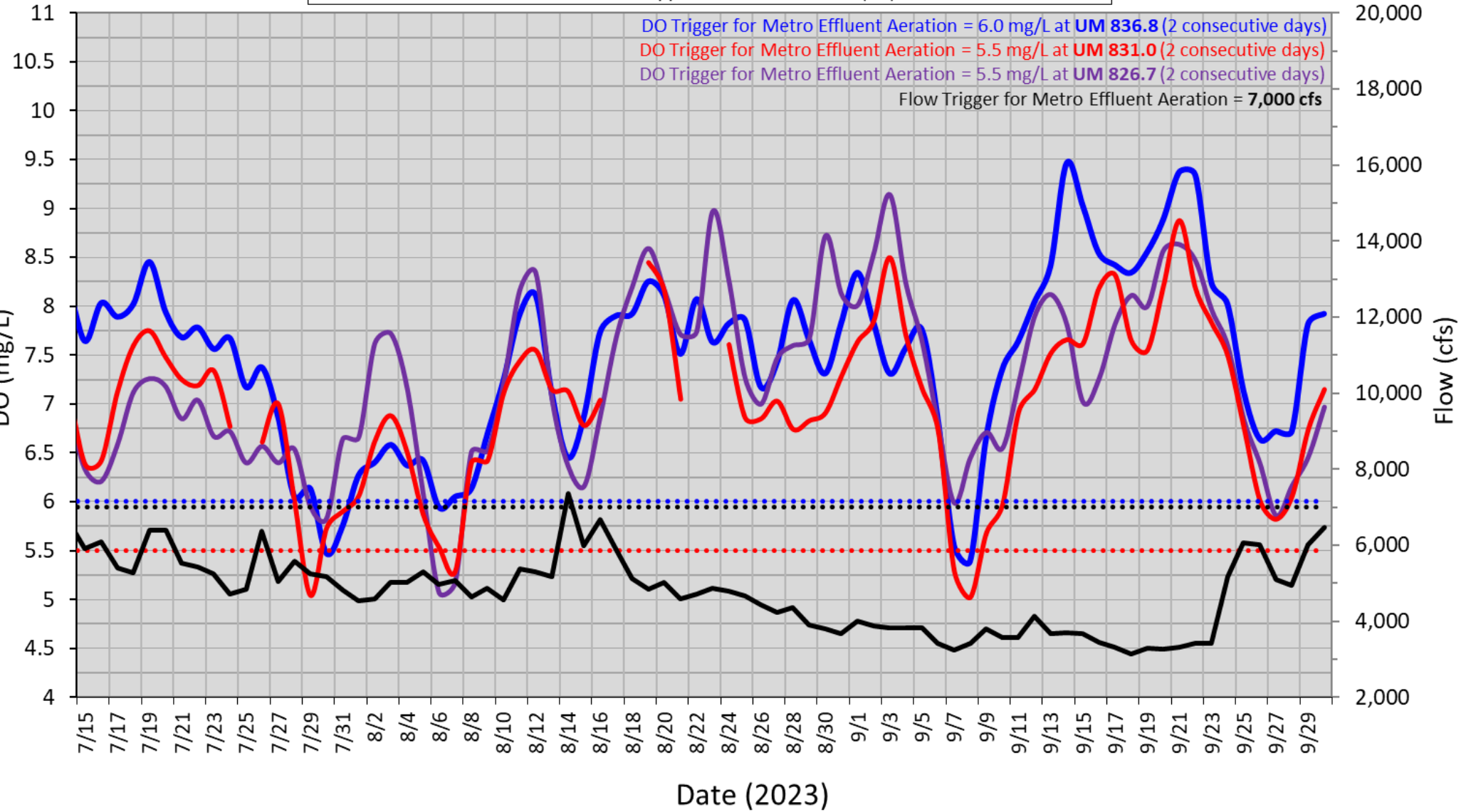
Pollutant Loading



2023 Drought Impacts

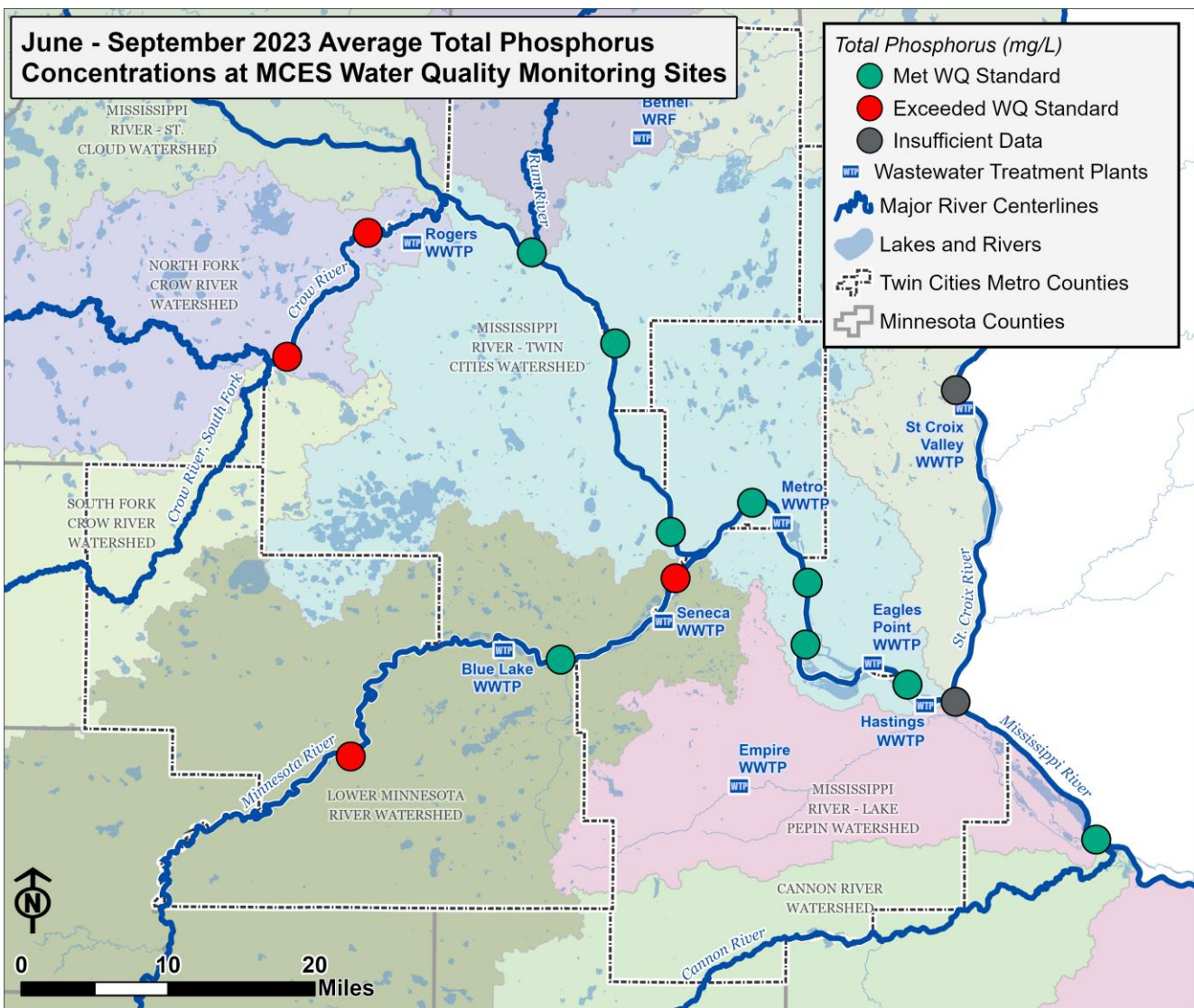
2023 Daily Mean Dissolved Oxygen Concentrations in Mississippi River

- DO at UM 836.8 (upstream of Metro Plant)
- DO at UM 826.7 (downstream of Metro Plant)
- DO at UM 831.0 (downstream of Metro Plant)
- USGS Mississippi River flow at St. Paul (cfs)

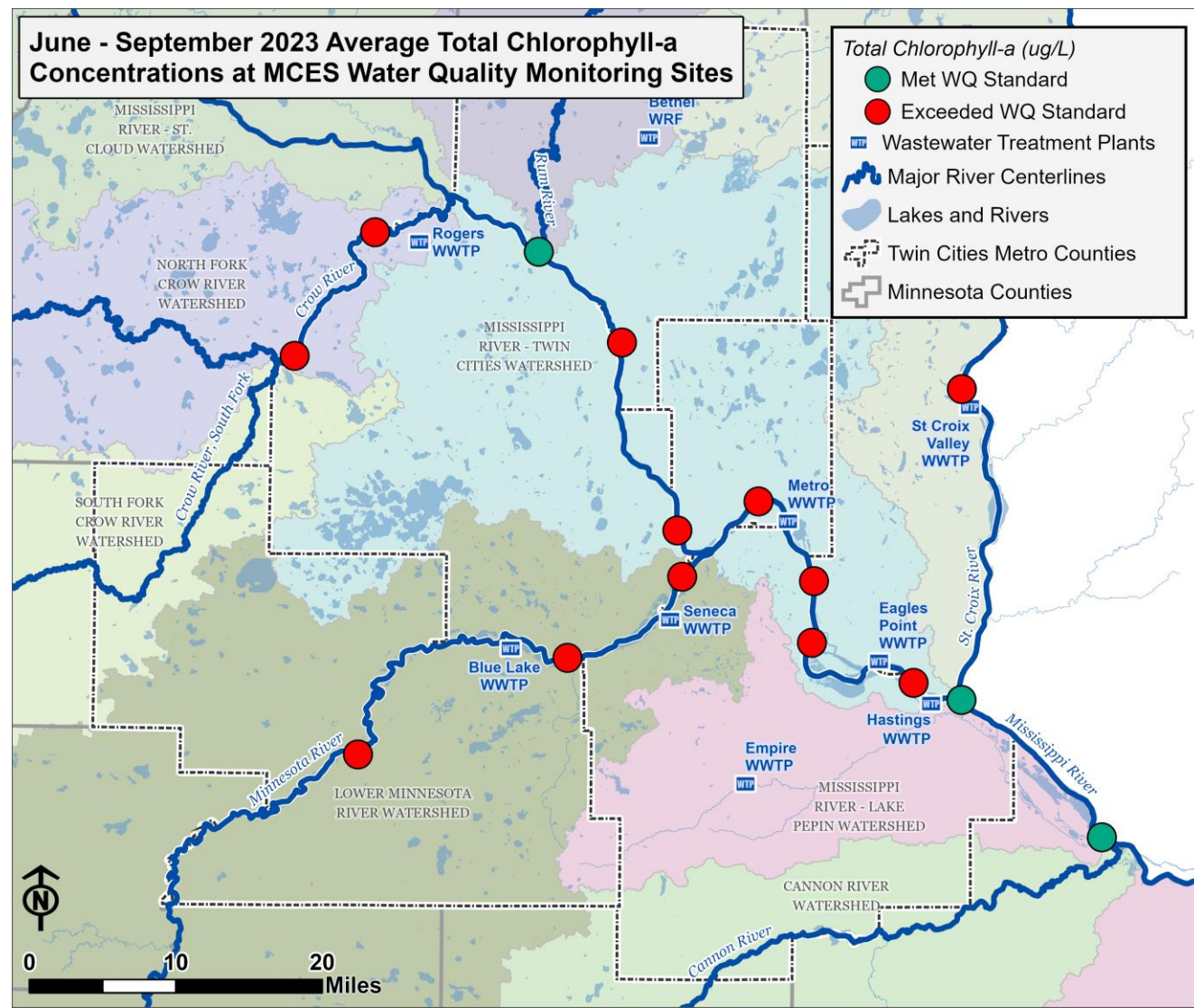


Mississippi River 2023 Drought Water Quality

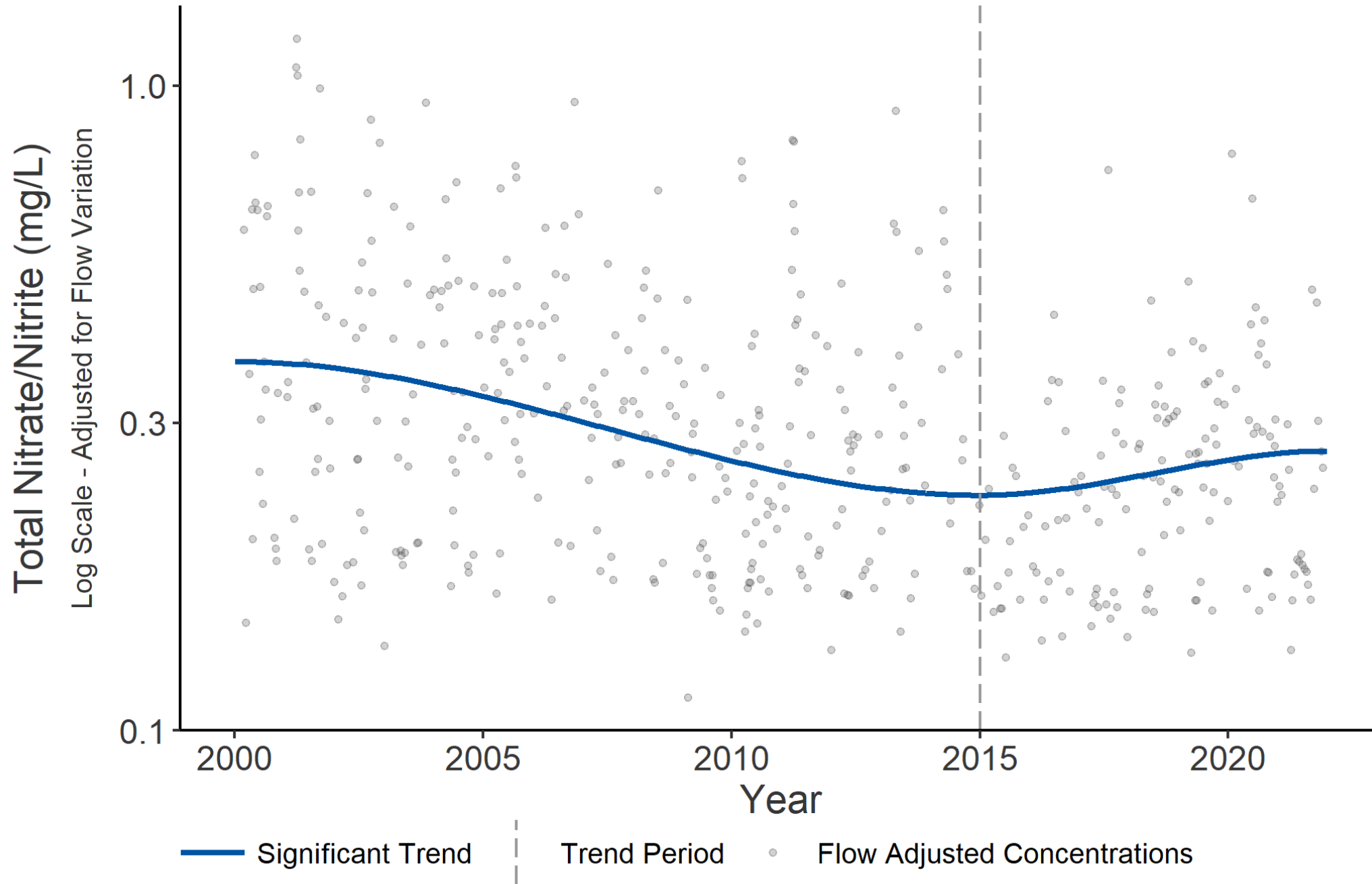
Phosphorus



Algae (Chlorophyll-a)



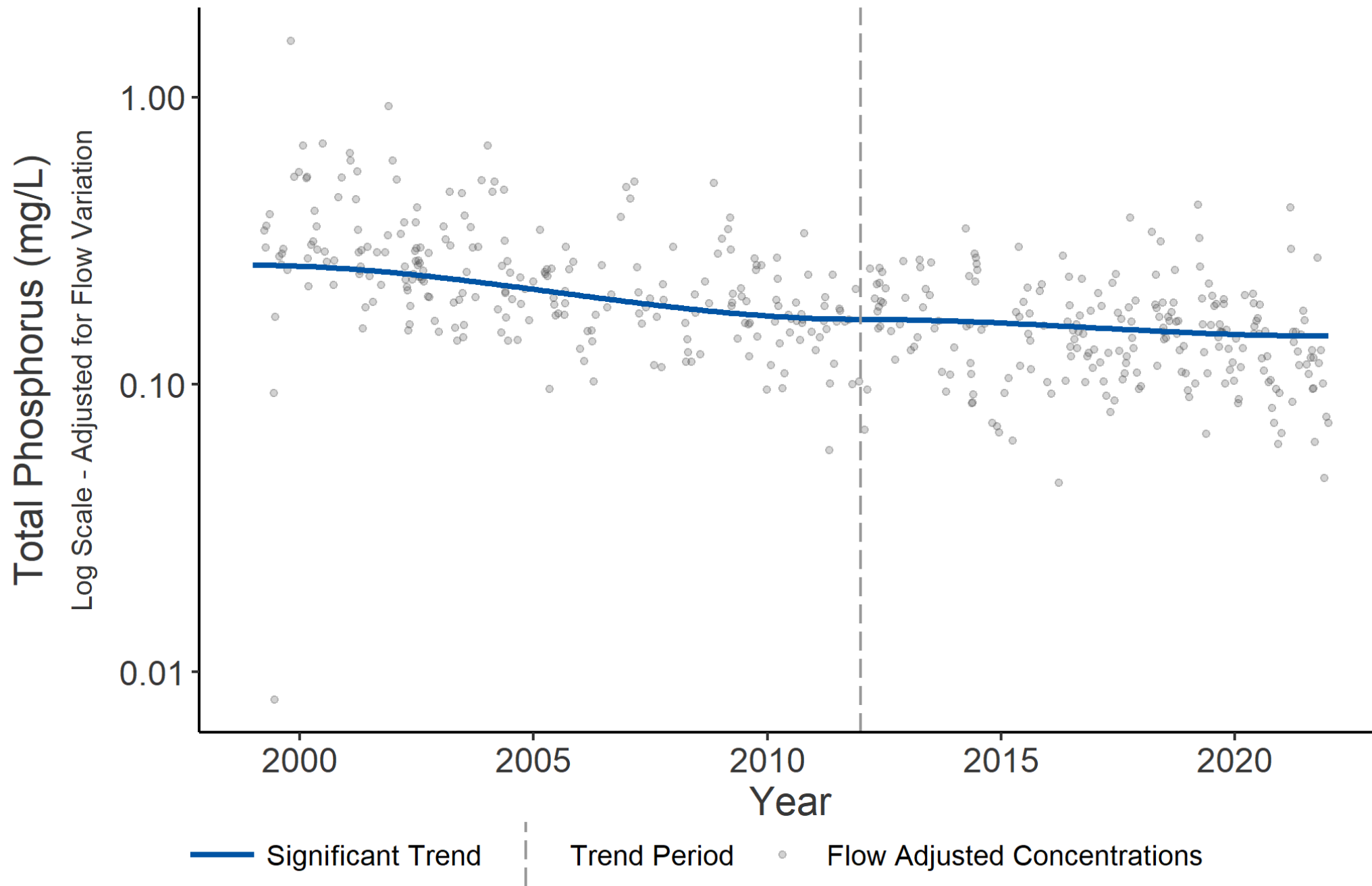
2023 Tributary Trend Updates



Bassett Creek Nitrogen

Smaller and heavily developed watershed more reactive to watershed and land use changes

2023 Tributary Trend Updates Continued

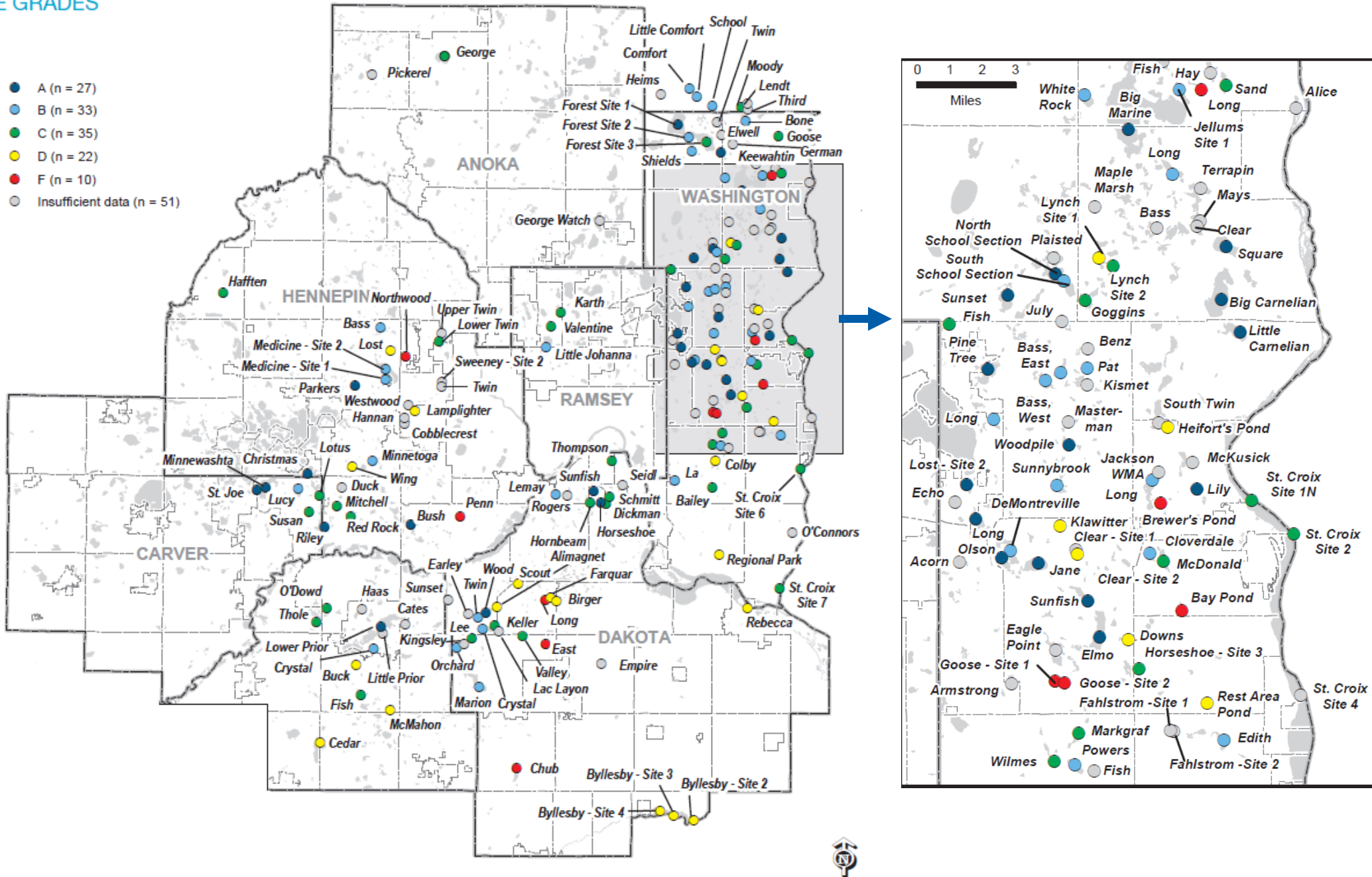


Crow River Phosphorus

Larger and less developed watershed shows gradual improvements over time

Lake Monitoring and Assessment

2022 LAKE GRADES





Thank you

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