

Phosphorus Implementation and Compliance Updates

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Highlights for WPDES/phosphorus:

- Statewide Compliance Update
- MDV Reauthorization – Proposed Changes
- Water Quality Trading Clearinghouse
- Adaptive Management

Statewide Phosphorus Criteria: Adopted 2010



Rivers

100 µg/L



Streams

75 µg/L



Reservoirs

- Not Stratified = 40 µg/L
- Stratified = 30 µg/L



Inland Lakes

Ranges from 15-30 µg/L



Great Lakes

- Lake Michigan = 7 µg/L
- Lake Superior = 5 µg/L

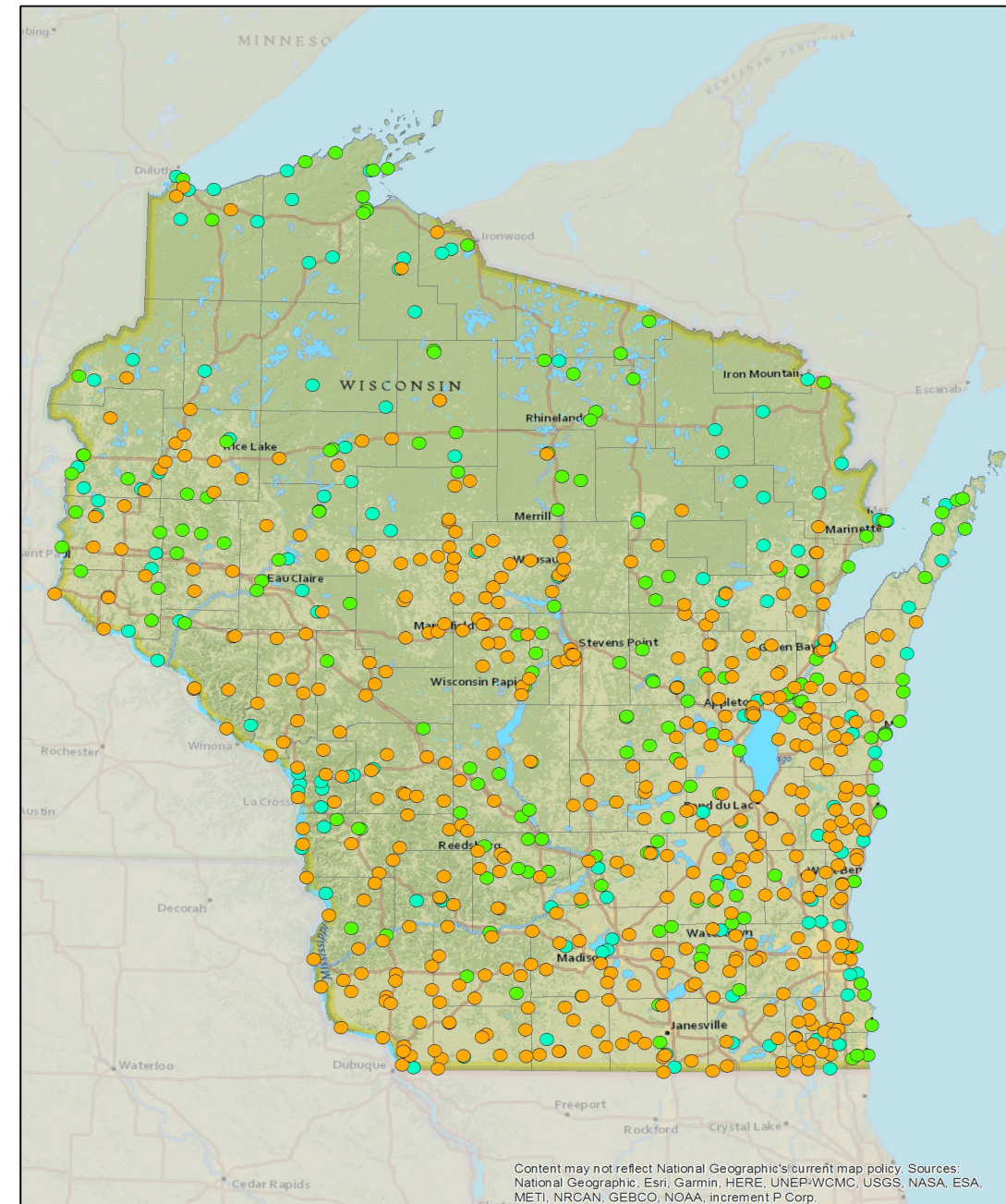
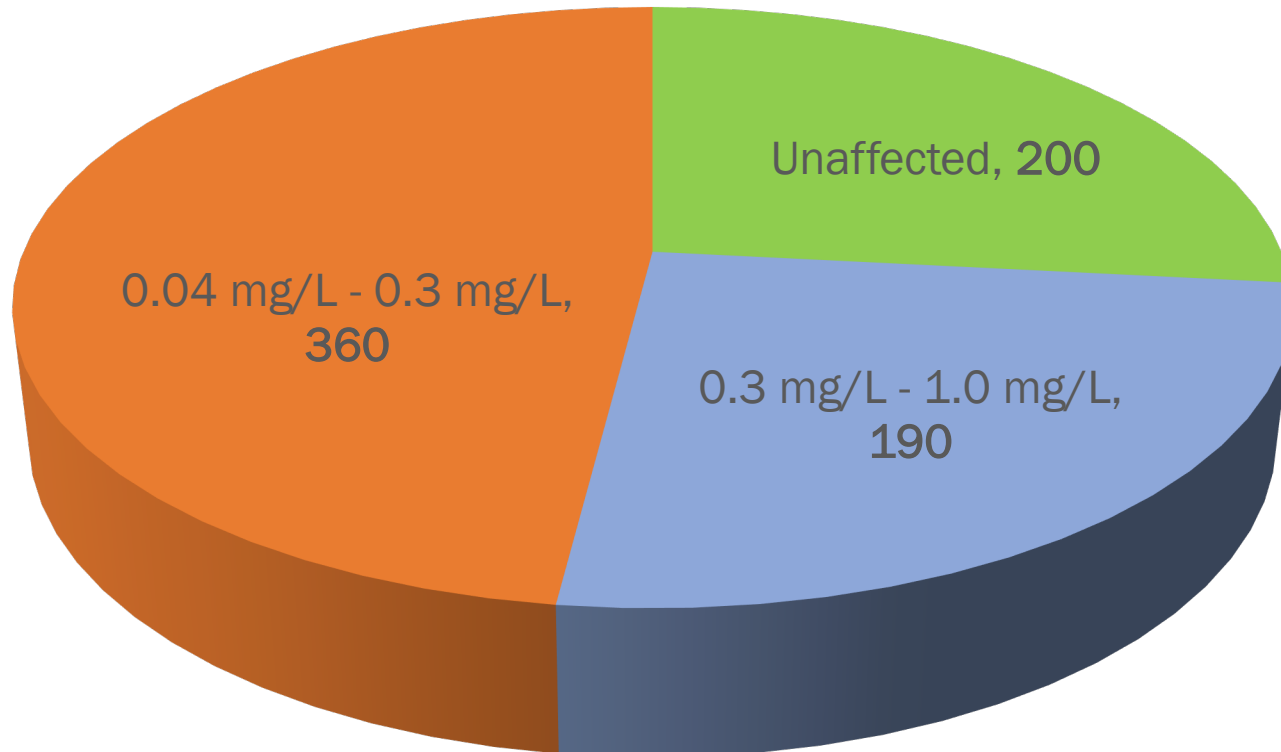
- Growing Season Median Value (rivers & streams)
- Summer Average Value (lakes & reservoirs)

Water Quality Based Effluent Limits: Total Phosphorus

Permitted Facilities:

- 750 surface water dischargers

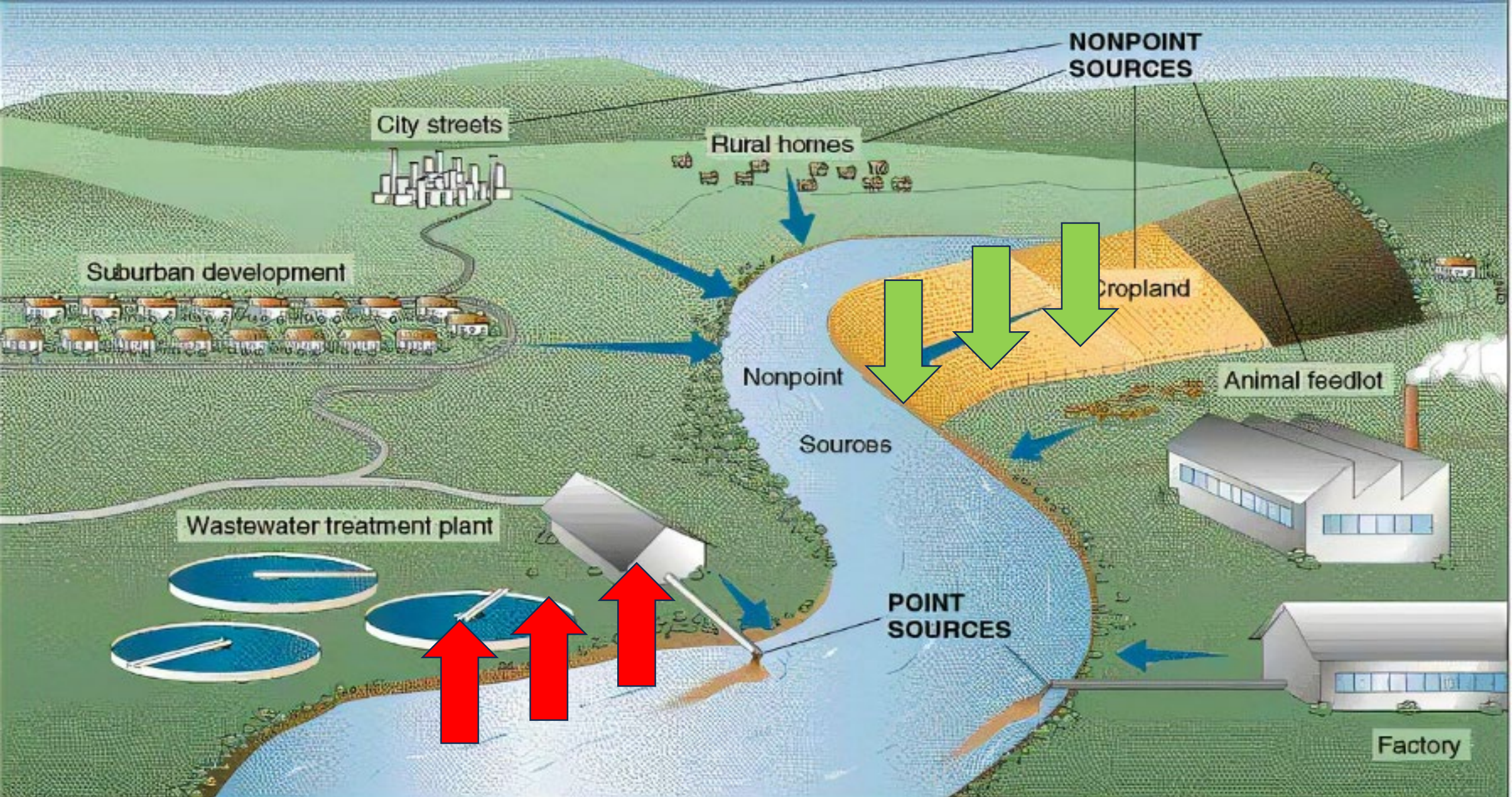
Initial Phosphorus WQBELs Statewide



Regulatory Flexibilities Required

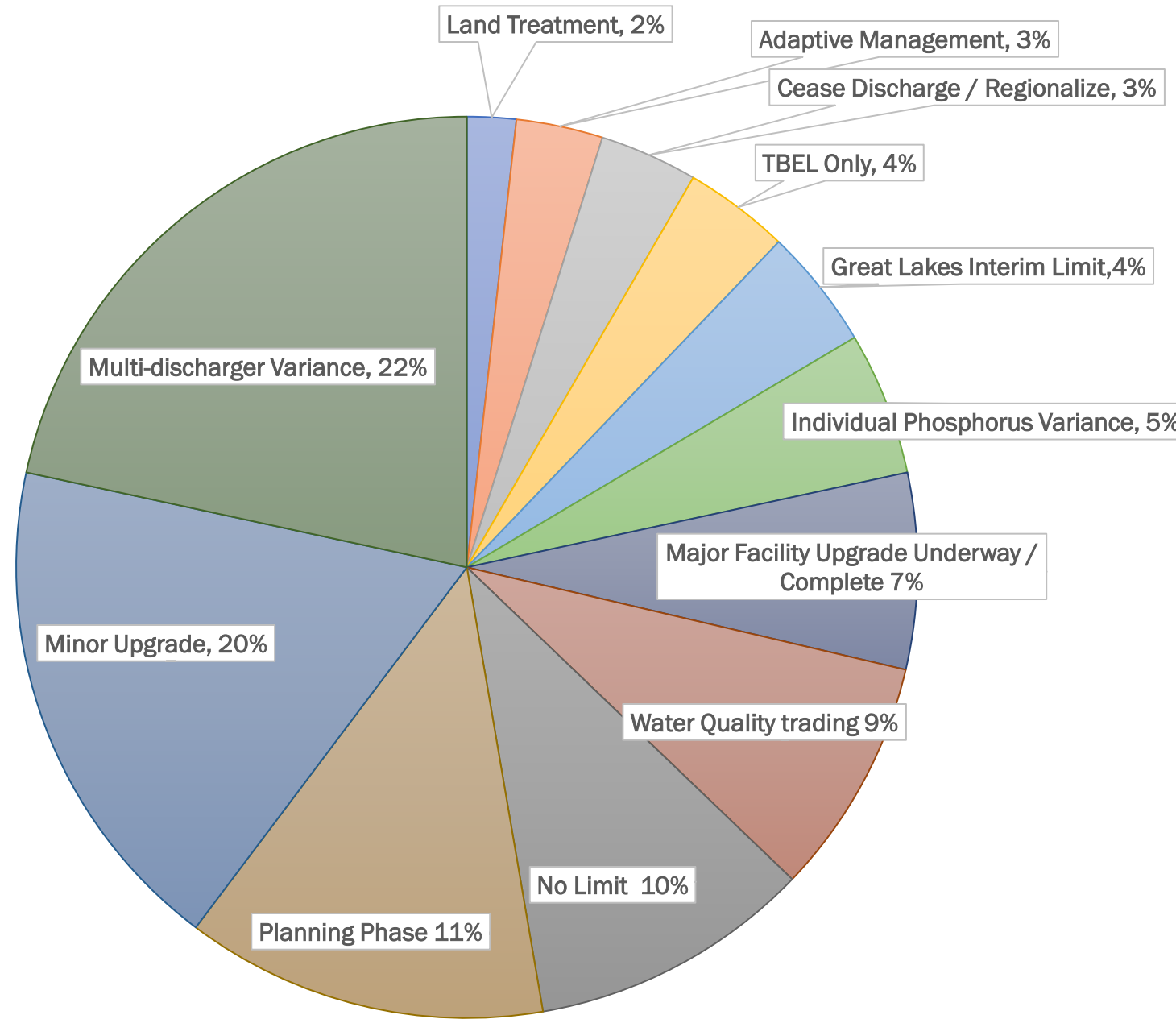
To make phosphorus regulations manageable for dischargers, the State has developed compliance and variance options:

- Water Quality Trading (s. 283.84, Wis. Stats.)
 - Pound-for-pound pollutant offset
- Adaptive Management (s. NR 217.18, Wis. Adm. Code)
 - Effort to achieve the criterion in the discharger's receiving water
- Multi-discharger Variance (s. 283.16, Wis. Stats)
 - Delayed effectiveness of limits when economic hardship would occur
 - Make a watershed phosphorus offset (self-directed or via County LCD)
- Individual Variance (s. 283.15, Wis. Stats)
 - Delayed effectiveness of limits for economically challenged communities



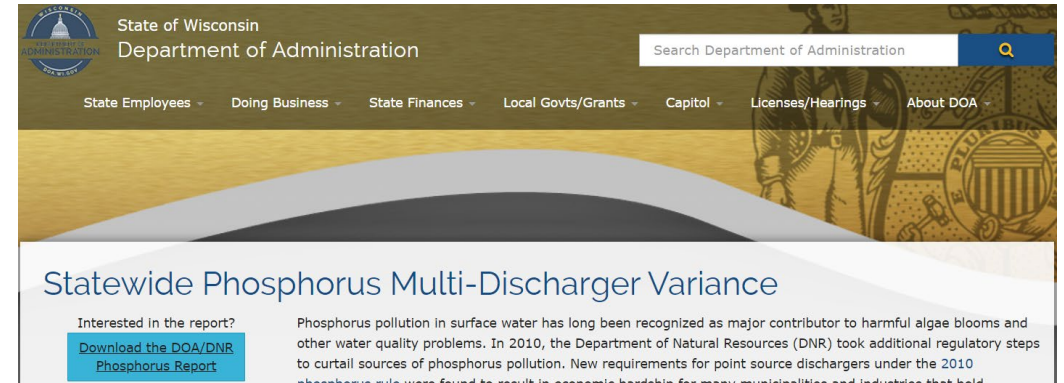
Phosphorus Planning Outcomes Statewide

- 70 facilities engaged in water quality trading
- 23 facilities engaged in adaptive management
- 150 Multi-discharger Variance
- 28 with Individual Phosphorus Variance
- 164 employing chemical or biological treatment
- 50 installing tertiary filtration
- ~65 facilities in planning phase



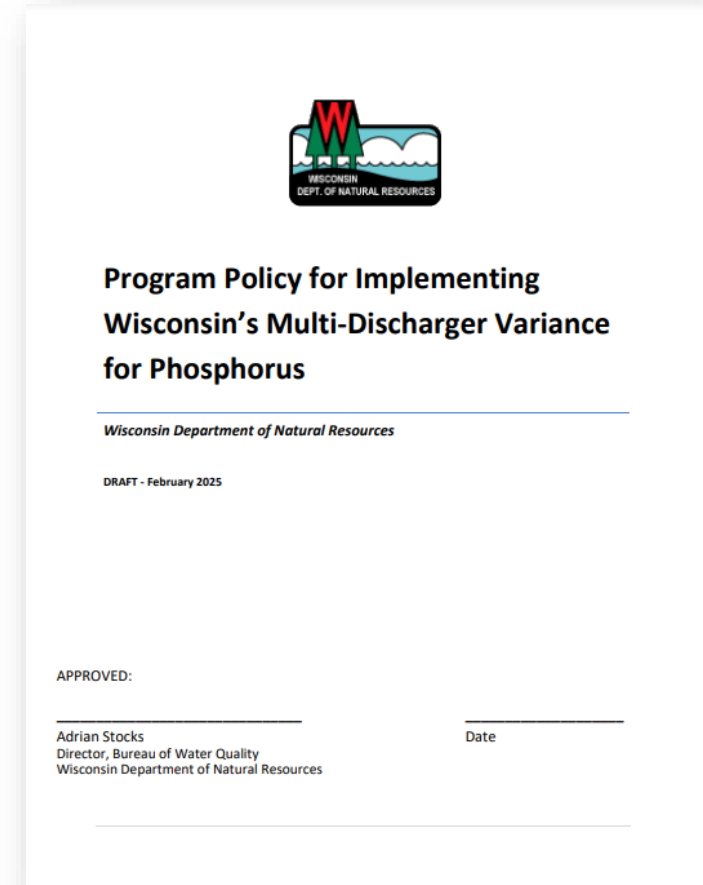
MDV Reauthorization

- Current MDV: EPA-approved in 2017, expires in 2027
 - Reauthorization would propose a 10-year extension (to 2035)
- DOA released economic determination on 12/16/2024
 - Phosphorus compliance cost dropped from \$3.4 Billion to \$900 Million
- Evaluation of phosphorus reductions
 - Counties have reduced ~58,000 pounds of nonpoint/ag phosphorus (~20,000 lbs/yr)
 - In-plant treatment/optimization is more effective than predicted
 - median monthly average for all MDV facilities is ~0.4 mg/L
 - Discharge exceeds WQBELs by ~25,000 lbs/yr
- Considerations for reauthorization (DNR and EPA discussions)
 - New EPA guidance regarding variance justification
 - Ongoing evaluation of compliance alternatives



MDV Reauthorization – What’s new?

- Updated secondary indicator scores
- Updated industrial 75th percentile thresholds
- Optimization Schedule changed to “Optimization and Compliance Planning”
 - Continue to evaluate phosphorus compliance options
 - Complete a financial alternatives analysis (per new EPA guidance)
- What is a financial alternatives analysis?
 - Low interest loans, grants, and principal forgiveness
 - Variable sewer rate structures
 - Technical assistance
- Municipal application updated
 - Asks about financial alternatives analysis
 - Asks if you’re retiring municipal sewer debt in the coming permit term



Water Quality Trading Clearinghouse

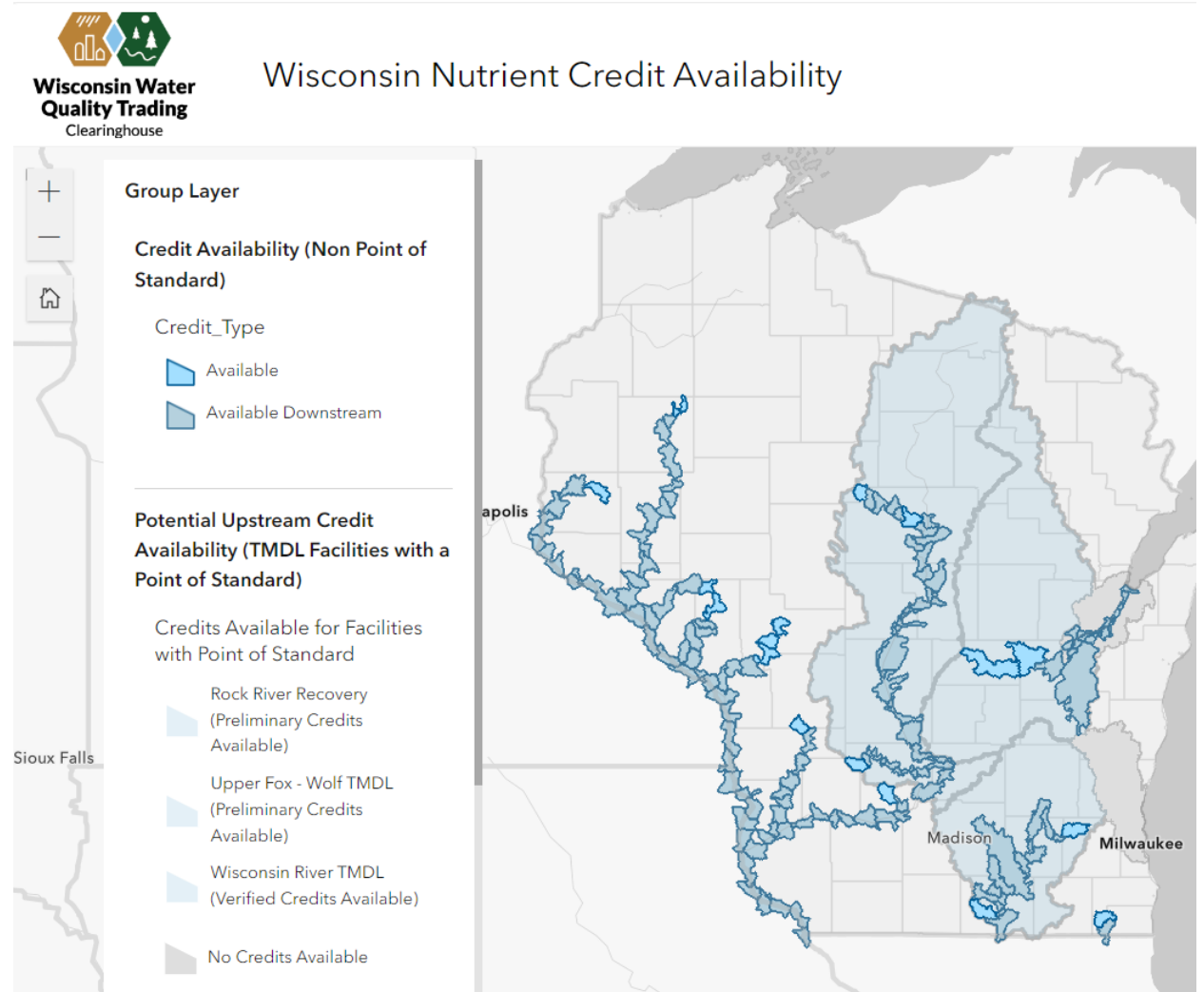
- Wisconsin Clearinghouse LLC (subsidiary of RES) - contract awarded in March 2023
- Online portal for credit buyers and generators is now functional (free registration starts the WQT process)
- The clearinghouse is working to establish a bank of readily-available credits
- Clearinghouse staff can work on an individual basis to search for opportunities in a specific watershed at no charge



Simplifying Water Quality Trading in Wisconsin.

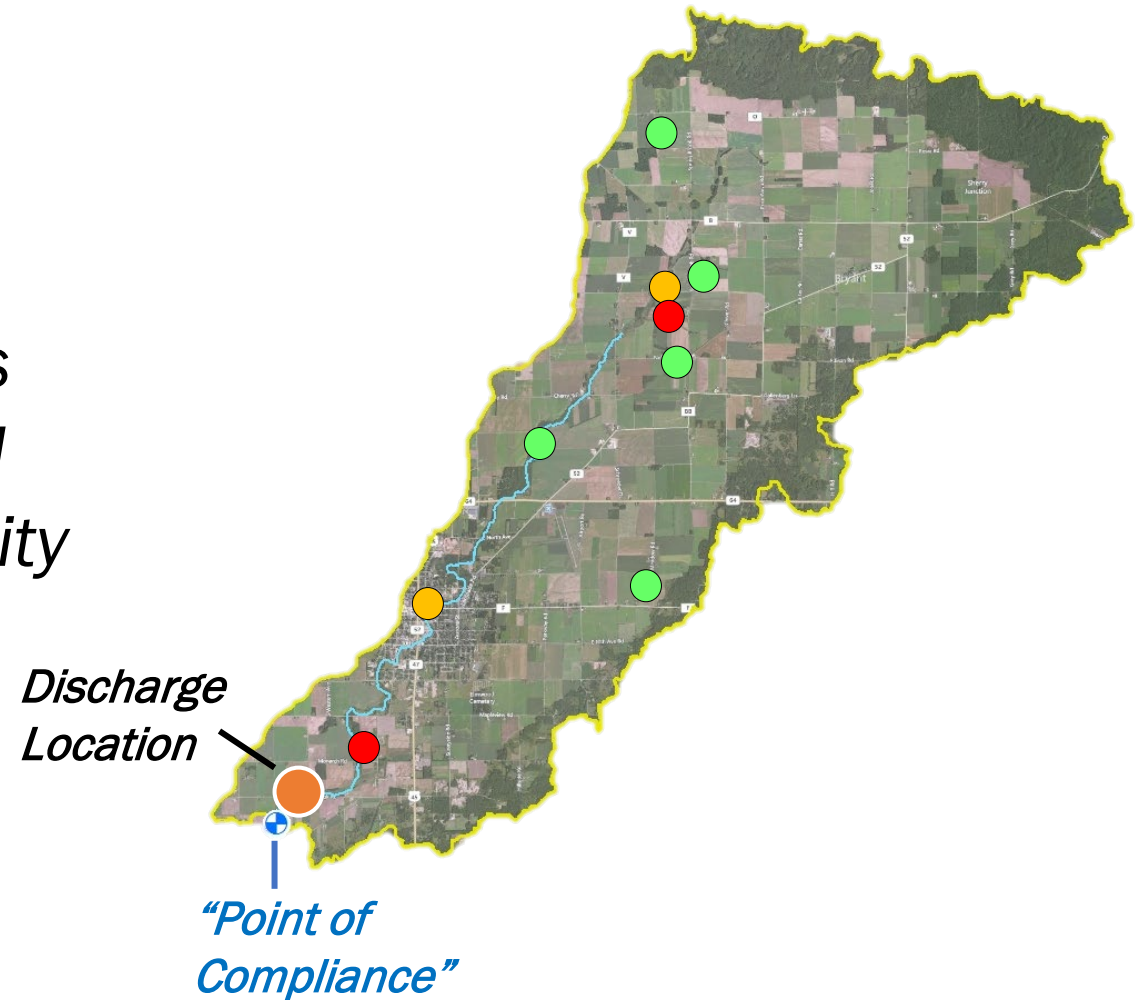
Water Quality Trading Clearinghouse

- There are 43 credit buyers registered on the Clearinghouse.
 - 2 have completed a trade
 - 7 have identified projects (development underway)
- 9 prospective credit generators in active discussions
- 21 total credit generators are registered

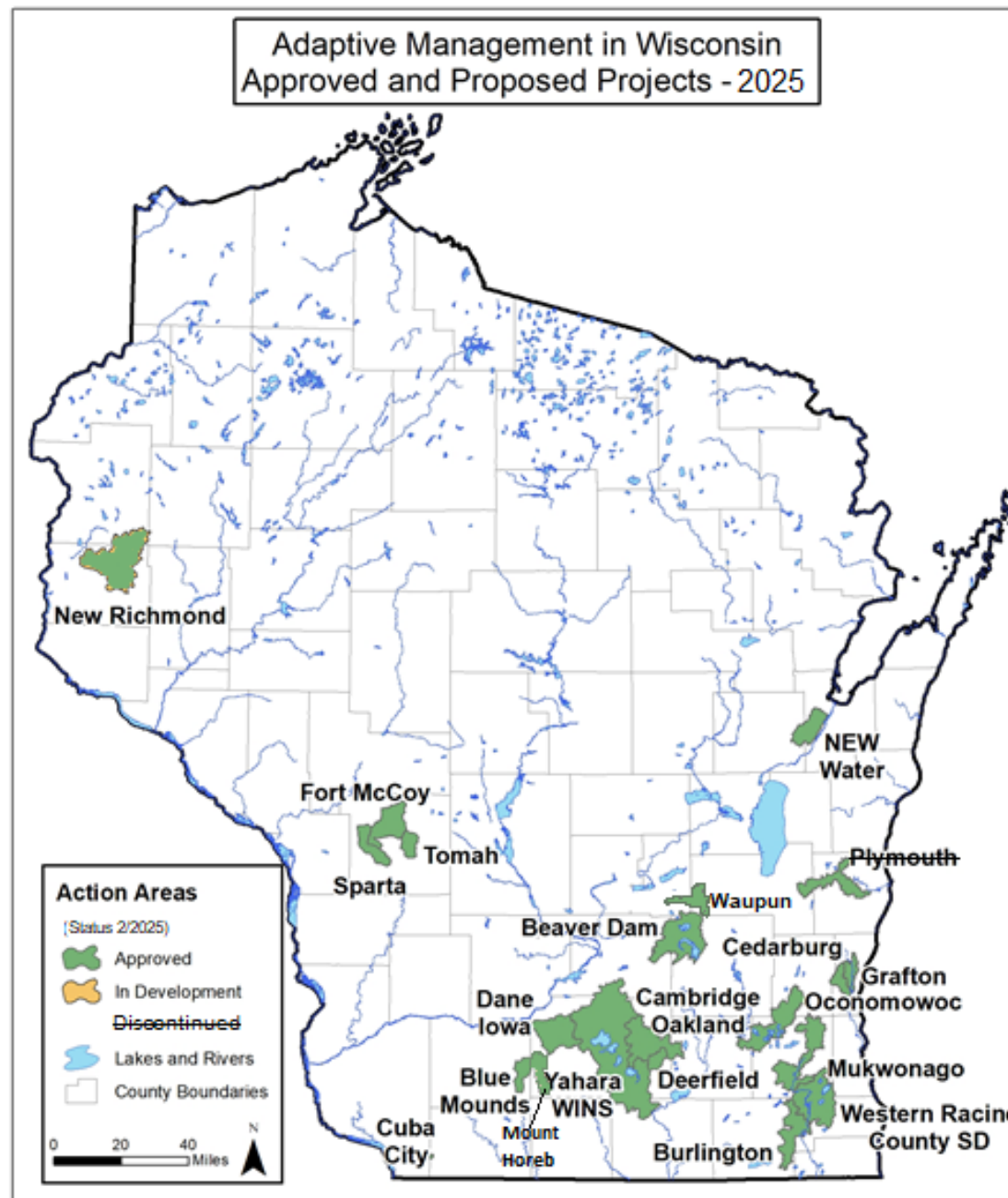


Adaptive Management – What is it?

Adaptive management allows wastewater facilities to work with point and nonpoint phosphorus sources to achieve the phosphorus criterion in the receiving water and thereby avoid making a major facility upgrade.



Adaptive Management Participants



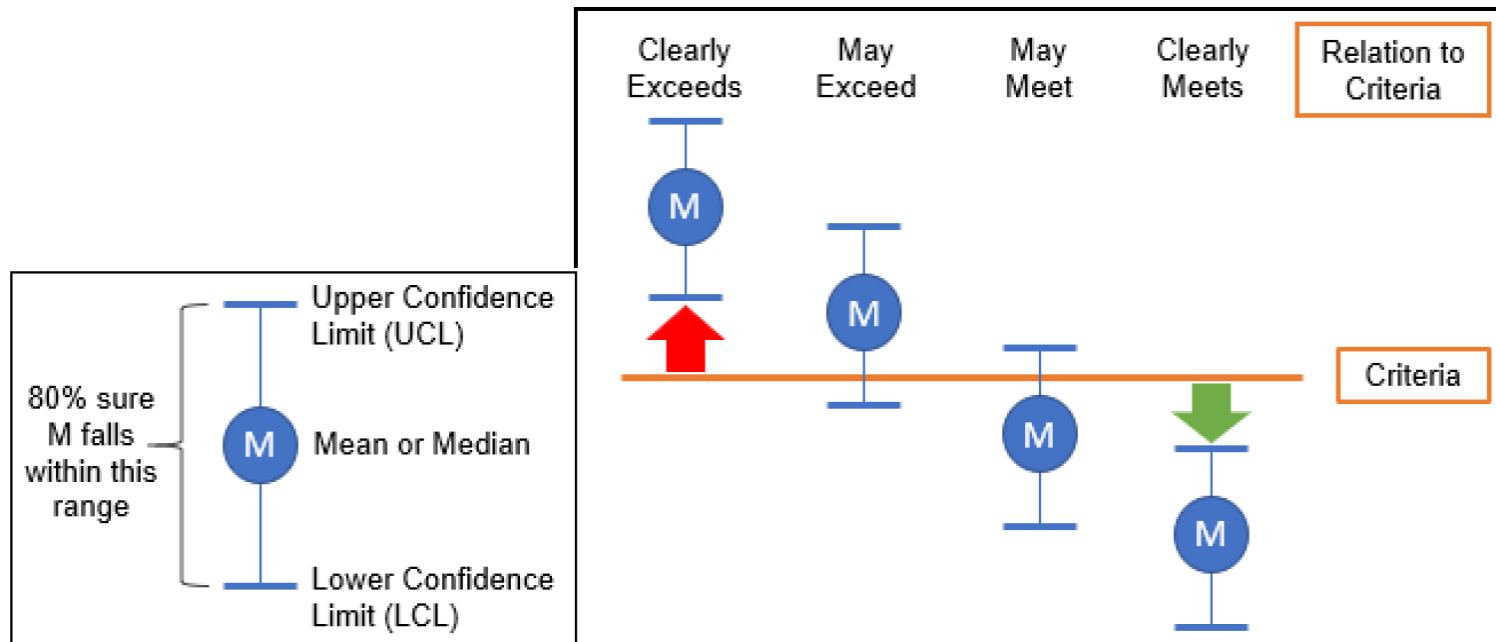
Adaptive Management - Tracking Progress

- Facilities engaged in adaptive management must meet interim milestones defined in the permit and adaptive management plan
 - In-stream monitoring results can be used to show improvements over time
 - Calculating reductions on a per-practice basis (nonpoint modeling, typically)



Adaptive Management – Compliance Determination

- Monitoring data should show that the receiving water “clearly meets” the criterion based on Wisconsin’s Consolidated Assessment and Listing Methodology (WISCALM)



CONNECT WITH US

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