



Wisconsin River Basin TMDL

February 21, 2018

TMDL Review and Report Overview



Total Maximum Daily Load

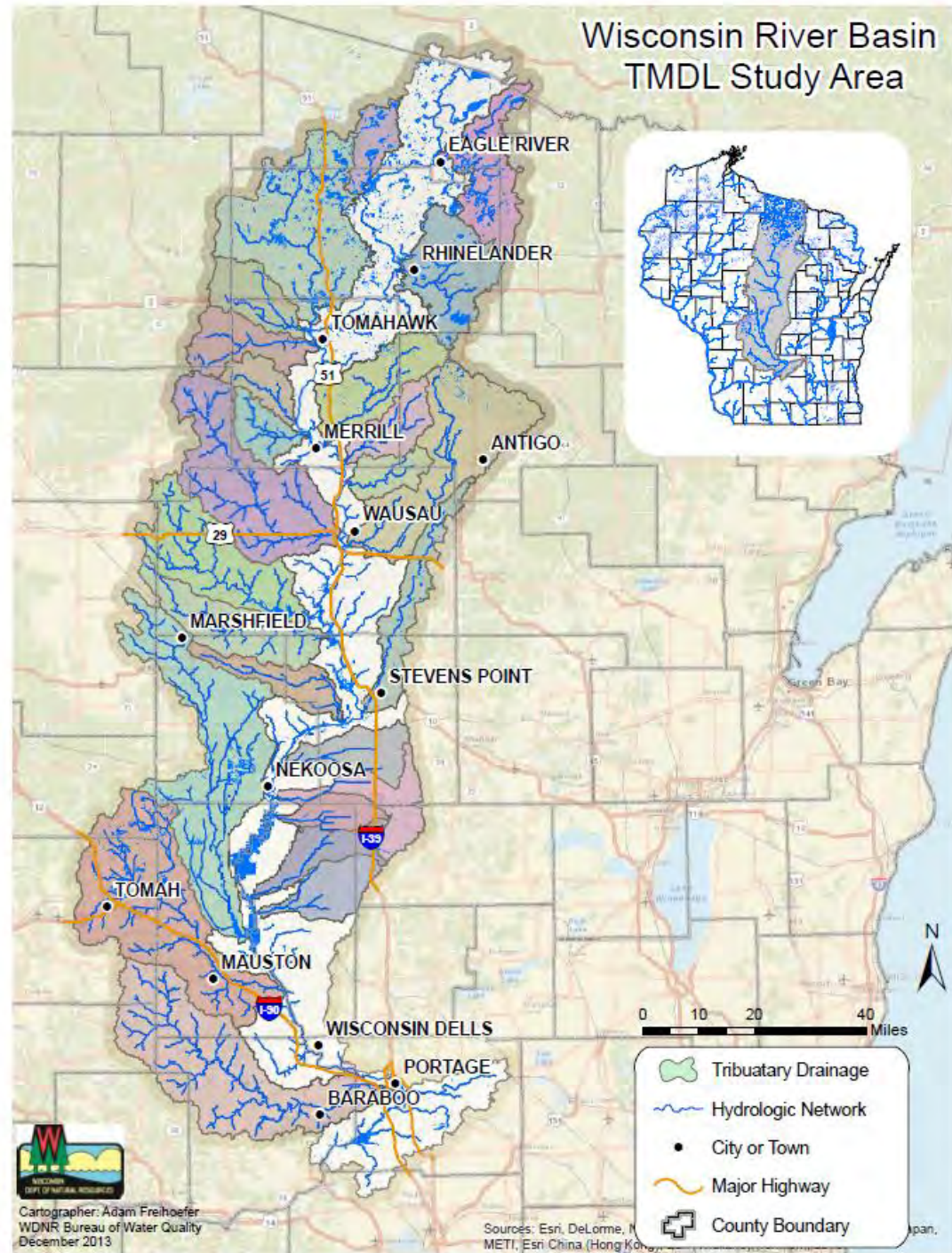
Speakers

Wisconsin Department of Natural Resources

Kevin Kirsch, PE



Matt Diebel, PhD



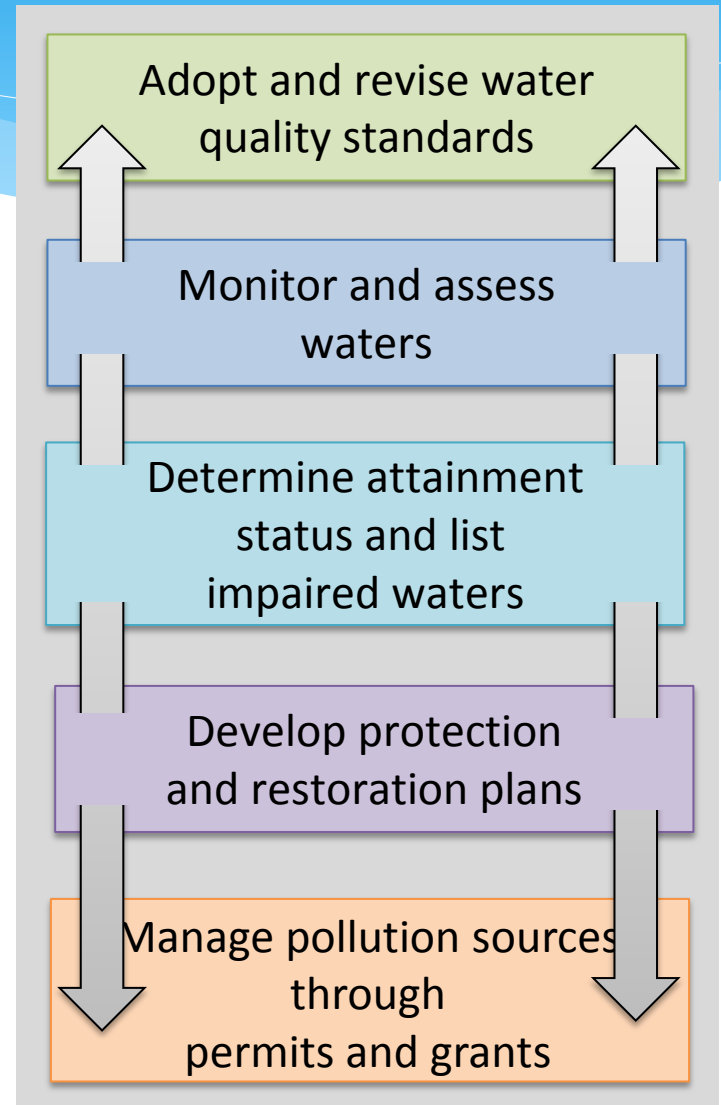
Presentation Outline

Purpose: Provide a brief summary of the TMDL development efforts for the Wisconsin River Basin – including proposed site-specific phosphorus criteria, resulting draft allocations, and provide an overview of the draft report and appendices.

1. Overview of the Impaired Waters/TMDL Program and Water Quality Standards
2. Step through the draft report highlighting sections
3. Outline next steps

Clean Water Act - Impaired Water Program

- * Federal Regulatory Underpinnings:
 - * Clean Water Act of 1972 (amended in 1977)
 - * Established Impaired Waters 33 USC 1313(d) and TMDL program 40 CFR 130.7
- * EPA relied on the NPDES (permit) process and technology based limits with little use of TMDL process. Legal challenges in 80s - 90s because of EPA's failure to implement TMDLs.
- * EPA ramps up 303(d) + TMDL processes in 2000.



Water Quality Standards

- * Designated Uses:
 - * **Fish & Aquatic Life**
 - * Public Health
 - * **Recreation**
- * Water Quality Criteria:
 - * Numeric: dissolved oxygen, pH, bacteria, toxic substances, phosphorus, etc.
 - * Narrative: “no objectionable deposits,” “substances in concentrations or combinations shall not be harmful to humans, fish, plants, or other aquatic life.”
- * Per Wis. Stat. s. 281.15 water quality standards must be adopted by rule.



Statewide Phosphorus Criteria



Rivers

100 µg/L



Streams¹

75 µg/L



Reservoirs

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



Inland Lakes²

Ranges from 15-30 µg/L



Great Lakes

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

¹All unidirectional flowing waters not in NR 102.06(3)(a). Excludes Ephemeral Streams.

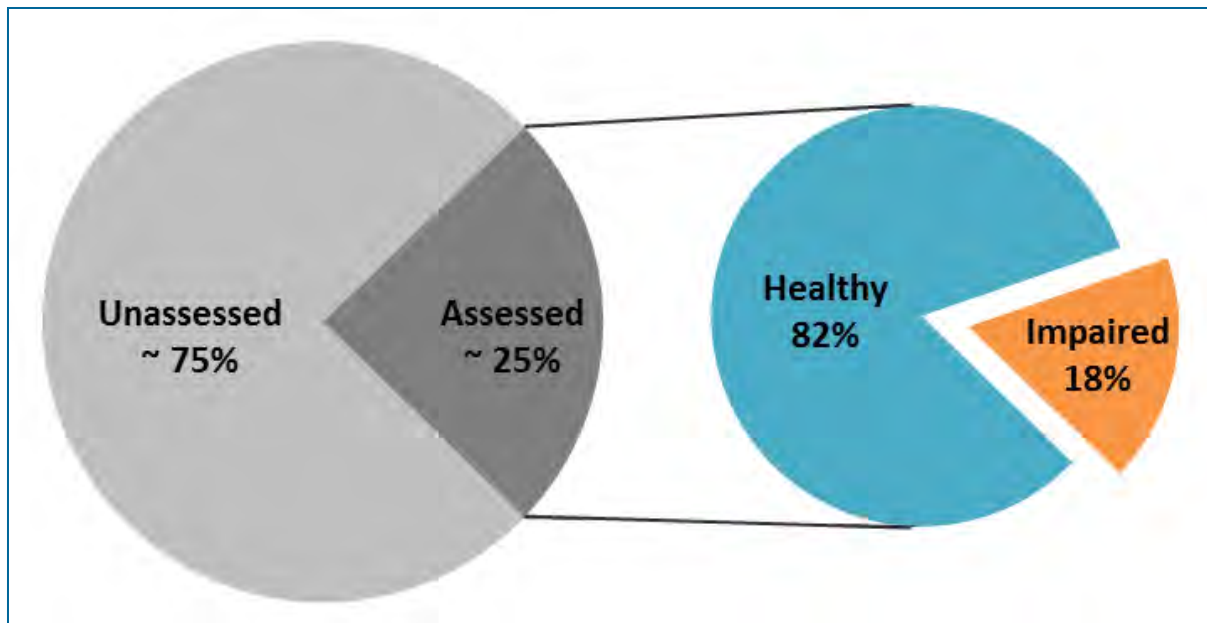
²Excludes wetlands and lakes less than 5 acres

Assessing and Listing of Impaired Waters

- * Required under 33 USC 1313(d)
- * Impaired Waters List updated every 2 years based on monitoring data.
- * Public comment period and submitted to U.S. EPA for approval. EPA can be petitioned to add waters if we do not.
- * More information available on WDNR Website:
<http://dnr.wi.gov/topic/impairedwaters/>

Assessed Waters - Healthy Waters

Of waters assessed, 6,978 of the waters are attaining designated uses and meeting criteria. Currently, 4.5% of the state's waters are listed as impaired.



What are TMDLs?

- * EPA requires that waters not meeting water quality standards be listed as impaired on Wisconsin's 303-d list and have TMDLs or a comparable water quality restoration plan developed.
- * TMDLs determine the amount of a pollutant a waterbody can receive and still meet water quality standards.

Total Maximum Daily Load =

Load Allocation



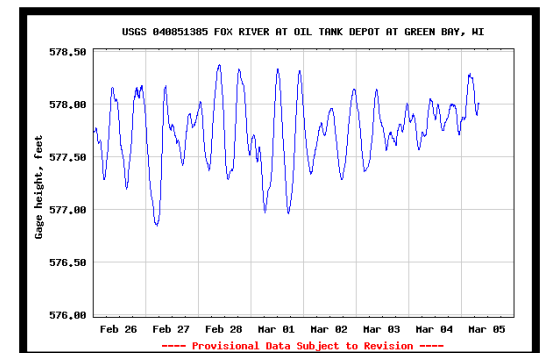
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Waste Load Allocation

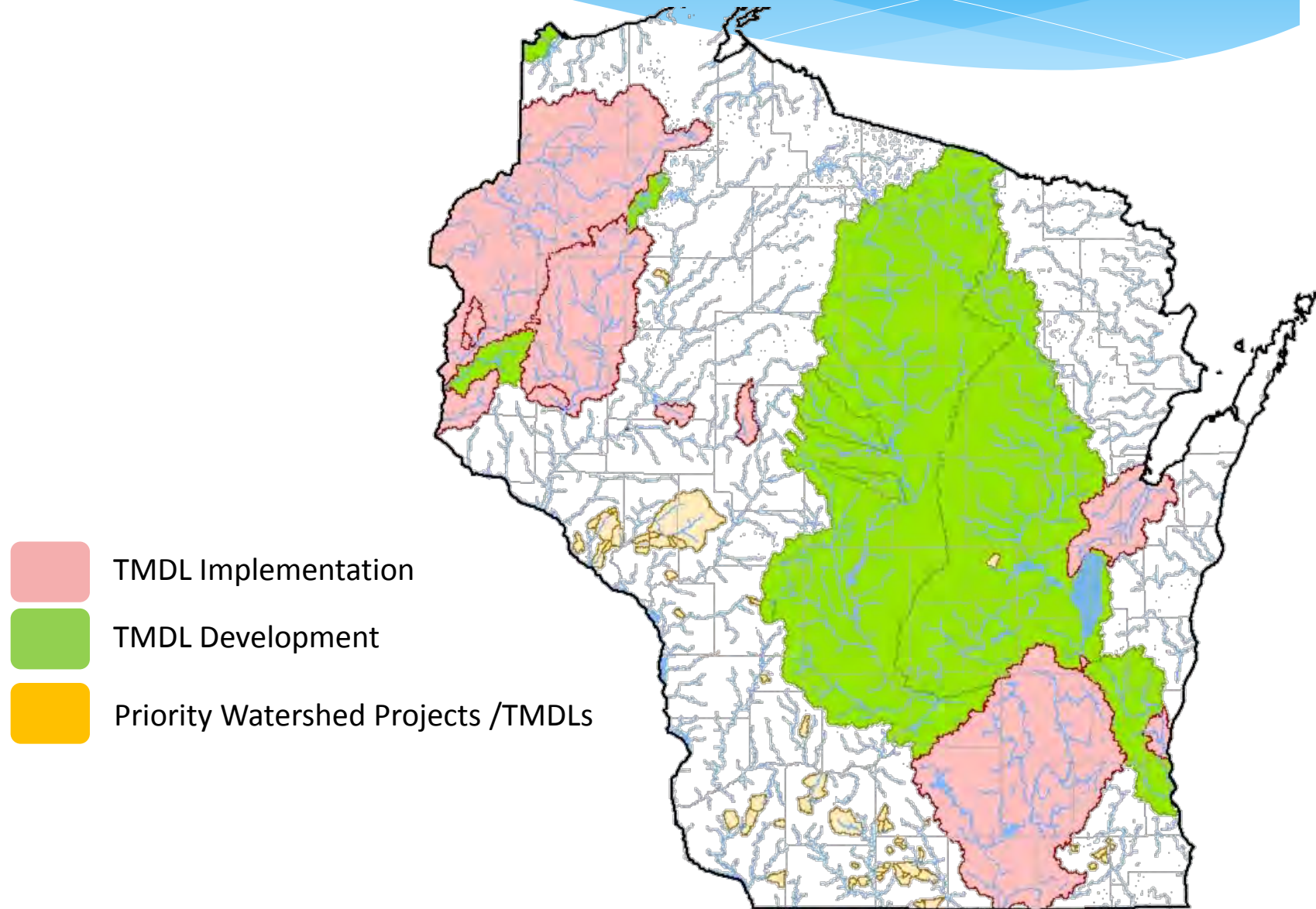


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Margin of Safety

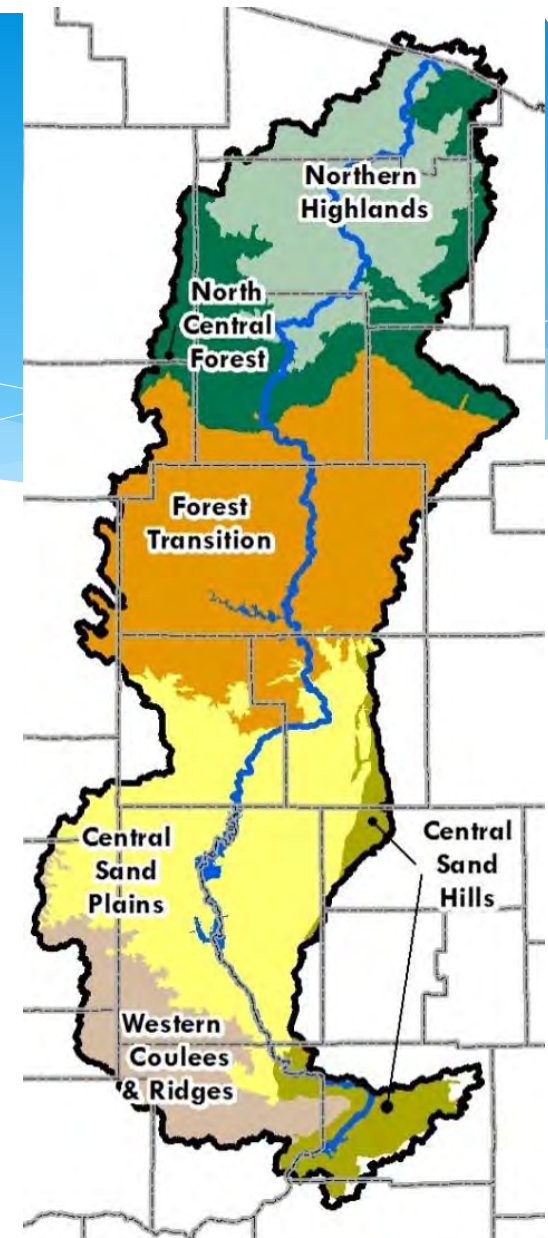
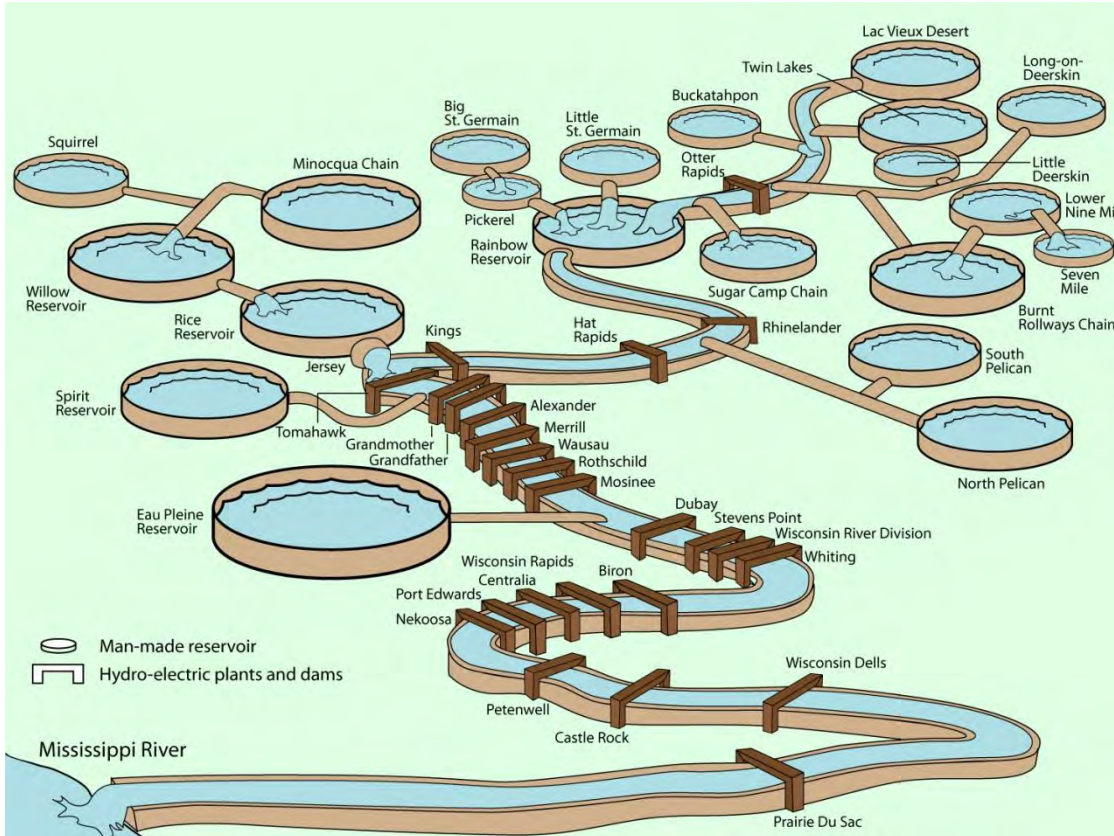


Statewide TMDL Overview



Large and Complicated System > 9,000 sq. miles

System of streams, rivers, lakes and reservoirs.



Ecological Landscapes

Historic Water Quality Issues



Historic Recreation






Castle
Rock



Lake
Wisconsin

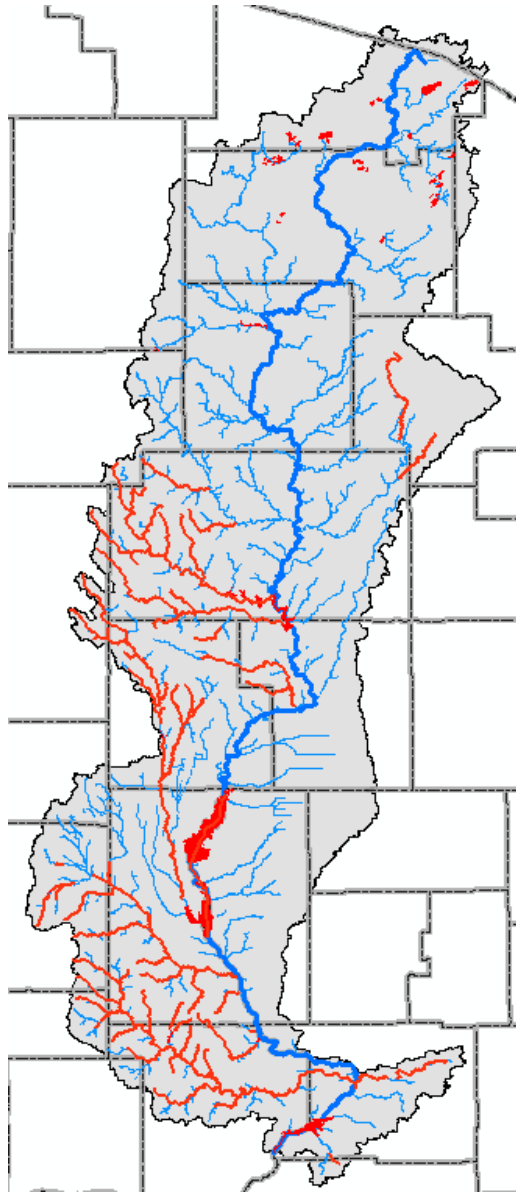


Lake
DuBay



Barnum Bay 2008

Petenwell



- Phosphorus Impaired Waters (2016)

 110 streams/ivers segments

 38 lakes/reservoirs



Why the TMDL was Started

2001-2004
Unsuccessful
Funding
Proposals

2008
First Pontoons
and Politics

1995

2000

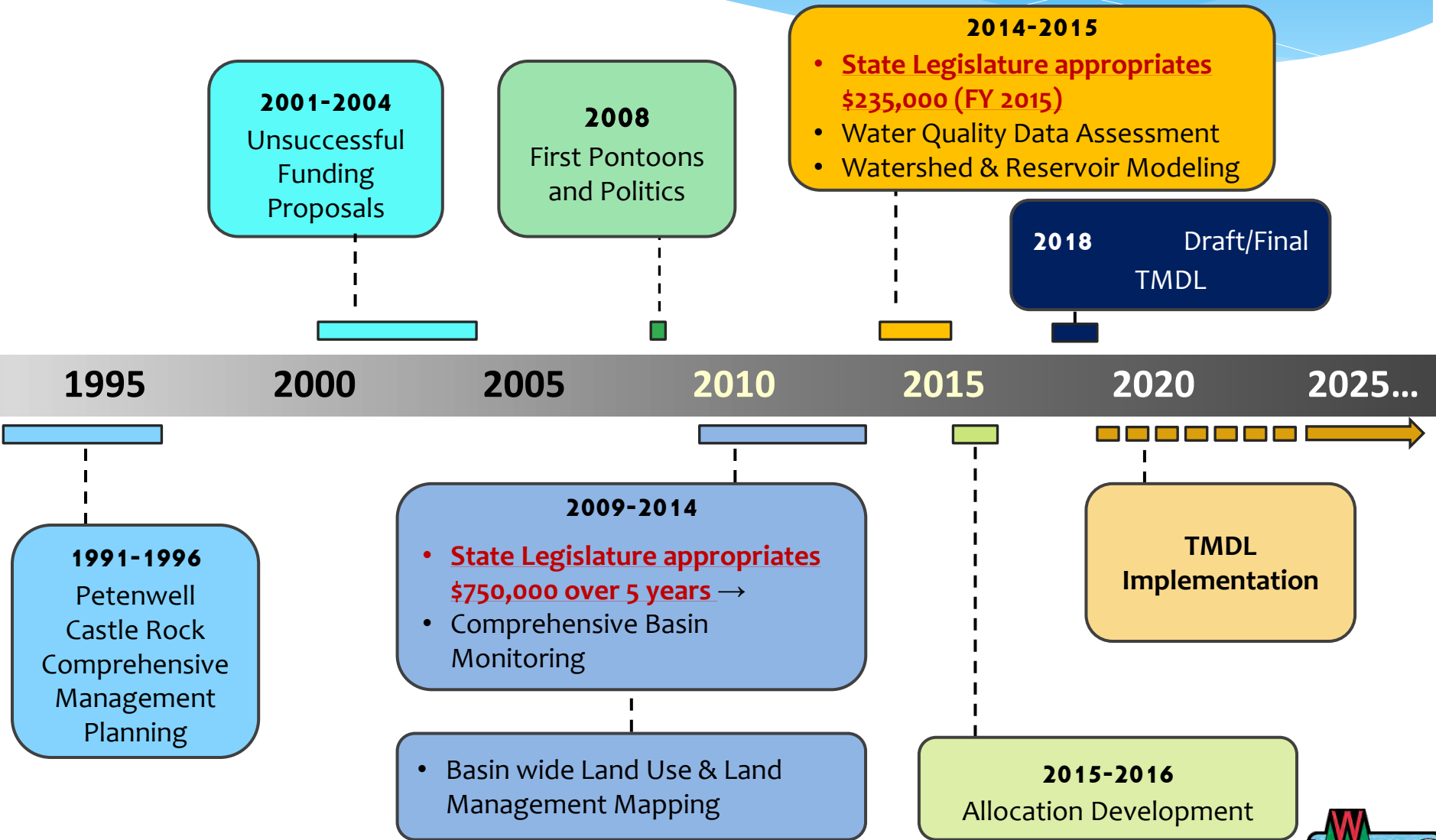
2005

2010

1991-1996
Petenwell
Castle Rock
Comprehensive
Management
Planning



Multi-year effort with an excess of \$2.8 million in State and Federal Spending



Draft Report

Total Maximum Daily Load for Total Phosphorus in the Wisconsin River Basin

February 21, 2018 DRAFT



02/21/2018

Including Adams, Clark, Columbia, Dane, Jackson, Juneau, Langlade, Lincoln, Marathon, Monroe, Oneida, Portage, Price, Richland, Sauk, Shawano, Taylor, Vilas, Waushara, and Wood Counties, Wisconsin

Section 1: Introduction

Section 2: Watershed Characterization

Section 3: Monitoring

Section 4: Source Assessment

Section 5: Pollutant Loading Capacity

Section 6: Pollutant Load Allocations

Section 7: TMDL Implementation

Section 8: Public Participation

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Draft Report

Appendices

Appendix A Tributary Information and Charts

Appendix B Lakes Requiring Additional Evaluation

Appendix C Site-Specific Criteria Analysis

Appendix D Watershed Modeling Documentation

Appendix E Sediment Monitoring

Appendix F Baseline Load

Appendix G MS4 Detail Maps

Appendix H Total Phosphorus Loading Capacity of Pelenwell and Castle Rock Flowages

Appendix I BATHTUB and Empirical Lake Models

Appendix J Allocations

Appendix K Proposed Site-Specific Criteria Allocations

Appendix L Watershed Implementation Activities

Appendix M CE-QUAL-W2 Reservoir Model

Section 1: Introduction

Section 2: Watershed Characterization

Section 3: Monitoring

Section 4: Source Assessment

Section 5: Pollutant Loading Capacity

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Moon Bay, Lake Wisconsin July, 2008

Report Sections 1 and 2

Introduction and Watershed Characterization

Study Area



Wisconsin River Basin

* 21 Counties and 85 cities and villages

* Permitted Wastewater Facilities

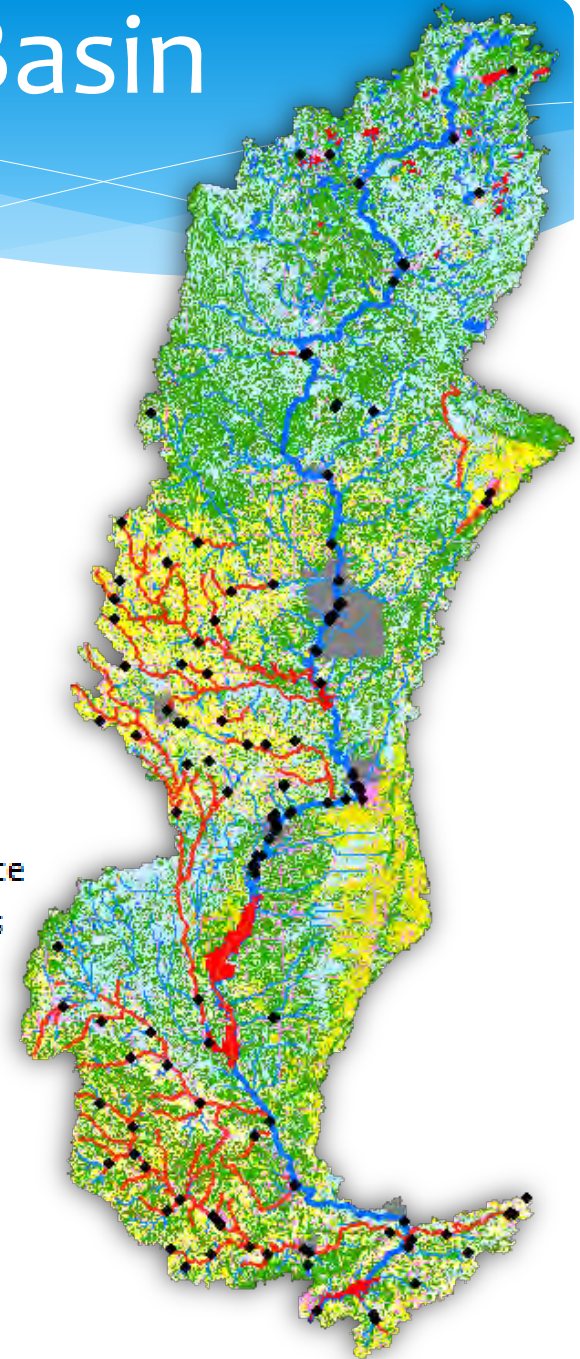
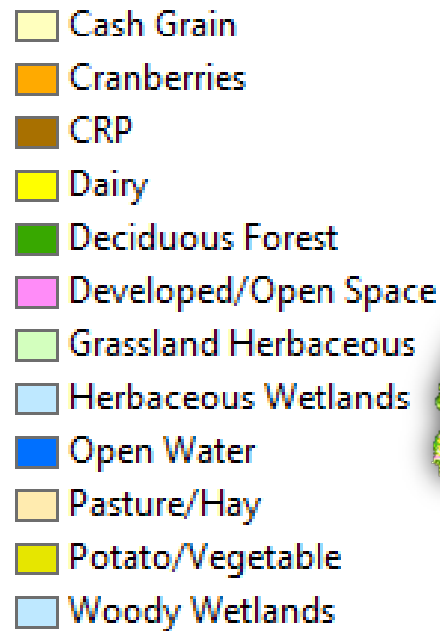
● 108 facilities

* Permitted MS4s

■ 14 municipalities

* 14 Citizen Groups

Land Cover



Listings of Impaired Waters

Total Maximum Daily Load for Total Phosphorus in the Wisconsin River Basin – February 21, 2018 DRAFT

TABLE 1. TOTAL PHOSPHORUS IMPAIRED RIVER AND STREAM SEGMENTS

Waterbody	Start Mile	End Mile	Counties	Assessment Unit	WBIC	Pollutants	Impairments ¹	Phosphorus Criteria ² (µg/L)	Fish & Aquatic Life Designated Use (proposed DU, if different) ³	TMDL Subbasin(s)	Figure Region	Tributary Watershed
Baraboo River	0	28.16	Sauk, Columbia	944741	1271100	Total Phosphorus	Water Quality Use Restrictions	100	Default FAL	4, 137, 179,	Lower	Baraboo
Baraboo River	28.16	60.23	Sauk	944788	1271100	Total Phosphorus	Impairment Unknown	100	Default FAL	5, 179, 180, 184, 231	Lower	Baraboo
Baraboo River	60.23	86.79	Juneau, Sauk	944844	1271100	Total Phosphorus	Impairment Unknown	100	Default FAL	184-187, 227	Lower	Baraboo
Baraboo River	86.79	101.29	Juneau	944915	1271100	Total Phosphorus	Impairment Unknown	100	Default FAL	187,274	Lower	Baraboo
Baraboo River	101.35	106.16	Juneau	13023	1271100	Total Phosphorus	Impairment Unknown	100	Default FAL*	27	Lower	Baraboo
Baraboo River	108.6	118.93	Monroe	12978	1271100	Total Phosphorus	Impairment Unknown	100	Cold	28, 189	Lower	Baraboo
Bear Creek	0	13.95	Juneau, Monroe	13102	1311600	Total Phosphorus	Degraded Biological Community	75	Default FAL	51, 52	Lower	Lemonwair
Bear Creek	0	11.7	Portage, Wood	12317	139870	Total Phosphorus	Water Quality Use Restrictions	75	Default FAL	78	Central	Mill
Beaver Creek	0	4	Juneau, Monroe	18435	1314000	Total Phosphorus	Impairment Unknown	75	Default FAL	53	Lower	Lemonwair
Big Eau Plain River	0	16.6	Marathon	12398	1427200	Total Phosphorus	Low DO	75	WWSF	87, 88	Upper	Big Eau Plain
Big Eau Plain River	16.61	21.84	Marathon	12399	1427200	Total Phosphorus	Low DO	75	WWSF	327	Upper	Big Eau Plain
Big Eau Plain River	22.34	45.64	Marathon	886772	1427200	Total Phosphorus	Low DO	75	WWSF	91, 152, 324	Upper	Big Eau Plain
Black Creek	0	14.65	Marathon	12474	1458200	Total Phosphorus	Impairment Unknown	75	Default FAL	102, 215	Upper	Rib
Black Creek	14.65	19.64	Marathon	12475	1458200	Total Phosphorus	Impairment Unknown	75	Cold	104	Upper	Rib
Brewer Creek	0	6.7	Juneau	18447	1305000	Total Phosphorus	Degraded Biological Community, Impairment Unknown	75	Cold	43, 44	Lower	Lemonwair
Brewer Creek	6.7	8.78	Juneau	13069	1305000	Total Phosphorus	Impairment Unknown	75	Cold	44	Lower	Lemonwair
Cat Creek	0	2	Wood	12232	1370700	Total Phosphorus	Water Quality Use Restrictions	75	Default FAL	65	Central	Yellow
Cazenovia Branch	0	0.66	Richland, Sauk	13010	1283100	Total Phosphorus	Impairment Unknown	75	Default FAL	310	Lower	Baraboo
Cleaver Creek	0	5	Juneau	13031	1292500	Total Phosphorus	Water Quality Use Restrictions	75	Default FAL	26	Lower	Baraboo

¹ Water Quality Use Restrictions = TP criteria were "overwhelmingly" exceeded (1.5 times the criteria for lakes and 2 times the criteria for rivers/streams); Degraded Biological Community = In addition to TP exceedance biological impairment was shown (poor macroinvertebrates and/or fish Index of Biological Integrity (IBI) scores); Impairment Unknown = TP exceeded criteria but no biological impairment was shown (either no biological data or all IBIs were fair – excellent); Low DO = Low dissolved oxygen

² Phosphorus criteria (µg/L): The waterbody's applicable phosphorus criterion under ch. NR 102.06

³ Fish & Aquatic Life Designated Use Status: This column indicates the waterbody's current Fish & Aquatic Life (FAL) Designated Use (DU) subcategory. If the DU has an asterisk behind it, that indicates that the waterbody was classified as Trout Class III before 1980, and may or may not be proposed as Cold in future DU revisions. Acronyms within this column are as follows: FAL=Fish & Aquatic Life; LFF=Limited Forage Fish; LAL=Limited Aquatic Life; WWSF=Warmwater Sport Fish; default FAL = Default Fish & Aquatic Life

Water Quality Standards

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 - * **Fish & Aquatic Life**
 - * Public Health
 - * **Recreation**
- * Water Quality Criteria:
 - * Numeric: dissolved oxygen, pH, bacteria, toxic substances, phosphorus, etc.
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Statewide Phosphorus Criteria



Rivers

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Reservoirs

- Not Stratified = 40 $\mu\text{g/L}$
- Stratified = 30 $\mu\text{g/L}$



Inland Lakes²

Ranges from 15-30 $\mu\text{g/L}$



Great Lakes

- Lake Michigan = 7 $\mu\text{g/L}$
- Lake Superior = 5 $\mu\text{g/L}$

¹All unidirectional flowing waters not in NR 102.06(3)(a). Excludes Ephemeral Streams.

²Excludes wetlands and lakes less than 5 acres

Report Section 3

Monitoring



- * Extensive water quality monitoring 2010 – 2013
 - * 13 main stem Wisconsin River sites
 - * 19 tributary sites
 - * 20 reservoir sites
 - * Water quality samples every 2 weeks
 - * Continuous river flow
- * Foundation of all other project components

Report Chapter 4

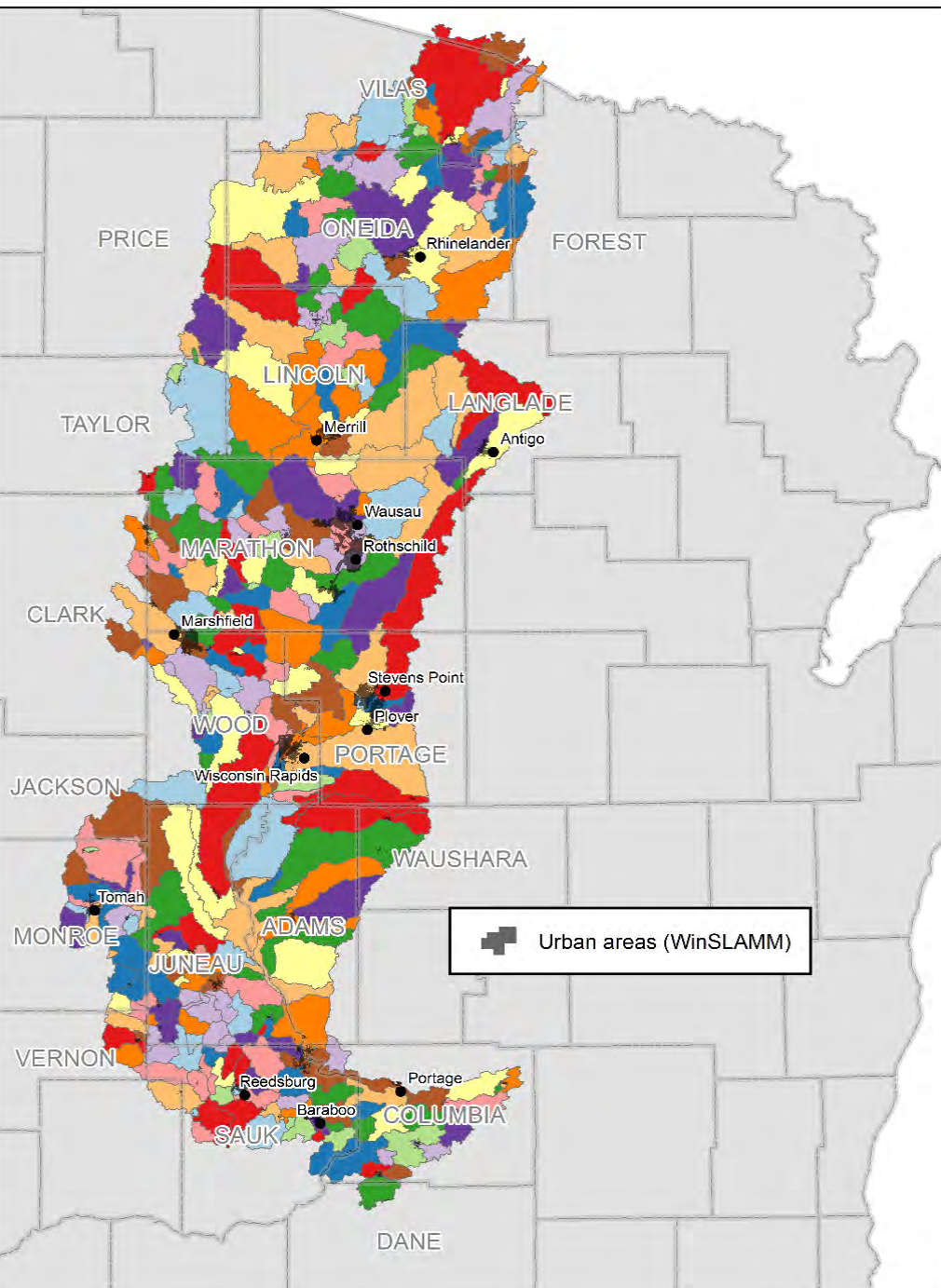
Source Assessment

Purpose of Source Analysis

1. Define and separate phosphorus loads by source type
 - a. Natural/background (uncontrollable)
 - b. Anthropogenic (controllable)
 1. Non-point (agriculture and urban runoff)
 2. Point-source (municipal/industrial wastewater and urban runoff)
2. Estimate loads using models where monitoring data does not exist (ungauged basins)

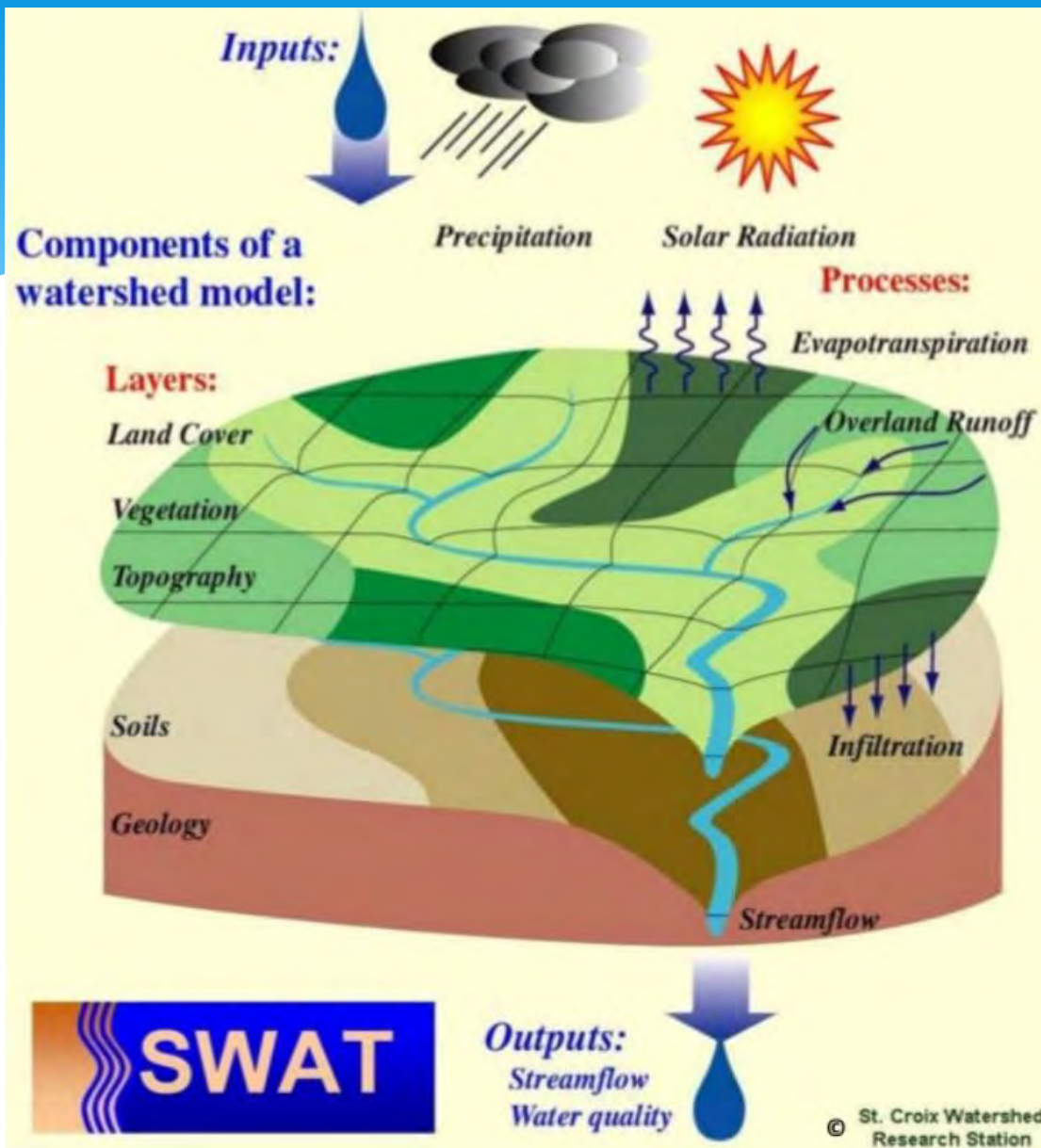
Analysis Units “Subbasin”

- * Subdividing the basin
 - * 337 breakpoints at locations of
 - * Impairments
 - * Point-source outfalls
 - * Changes in TP criteria
 - * Avg. subbasin size of 26 sq. miles



SWAT

Soil and Water Assessment Tool



- * Primary Model
- * Estimates streamflow and TP loads for each of the 337 subbasins given:
 - * Climate
 - * Landuse
 - * Soils
 - * Topography

Defining Land Management

1 Define Crop Rotations

To define the crop rotations in each field, satellite-derived landcover maps were used showing the types of crops growing each year over a five year period (2008–12).



2 Define Field Rotations

Crop rotations were then grouped into specific field rotations, such as dairy, cash grain, continuous corn, or potato/vegetable.



3 Meet with Counties

Meetings were held with local experts (county conservationists and agricultural professionals) to confirm and/or refine crop rotations, and to specify management practices (e.g., tillage and nutrient application).



4 Compare to Field Data

The updated crop rotation dataset was validated by comparing it to independently measured data sources, including cattle inventory records, county crop acreage reports, dairy producer practices (e.g., tillage and nutrient application), and field transect surveys.



FIGURE 19. DEFINING LAND COVER AND LAND MANAGEMENT IN AGRICULTURAL AREAS.

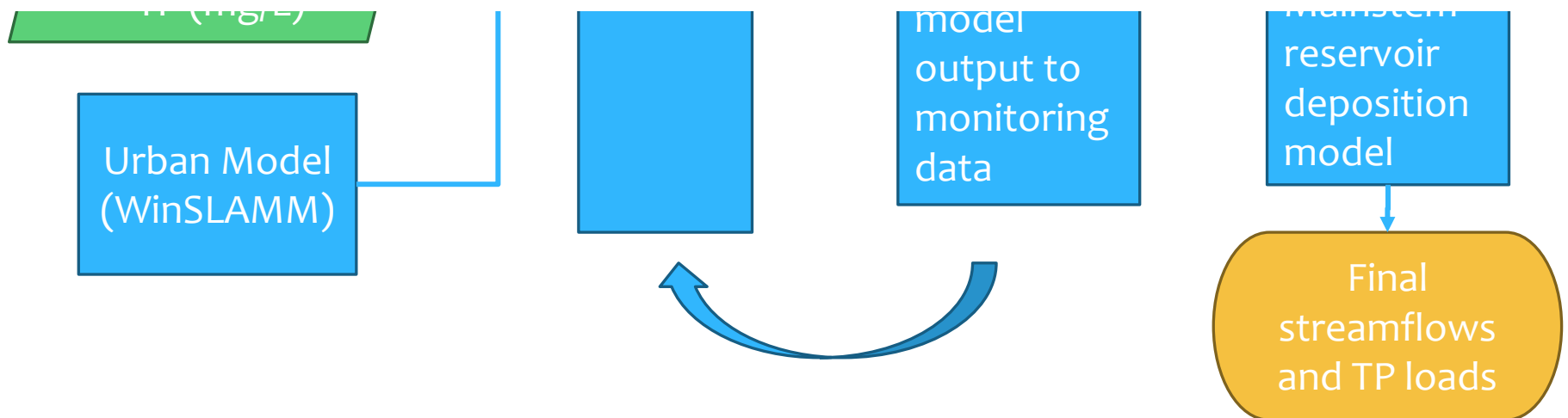
Model Framework

Non-point
Inputs:

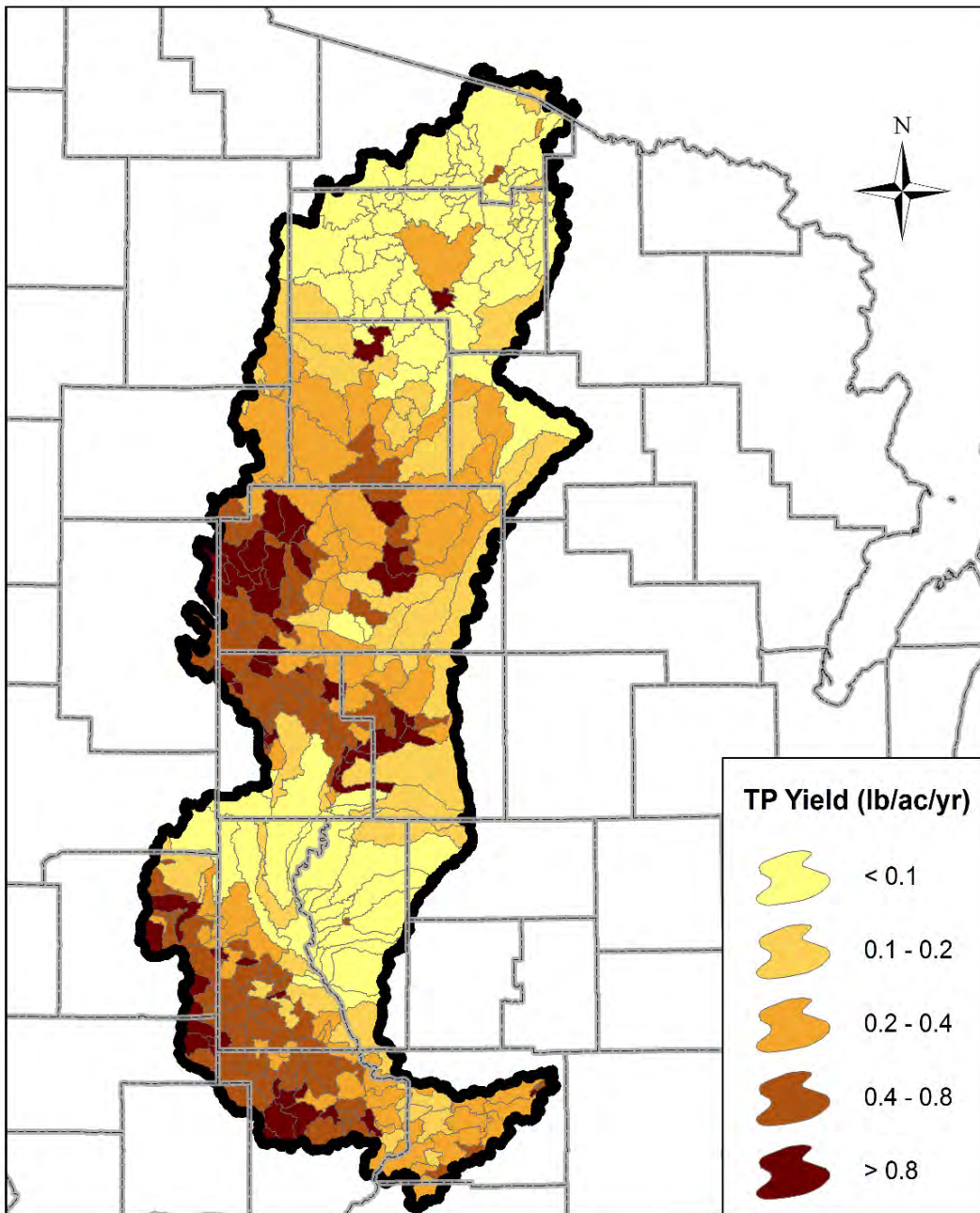
- Climate
- Landuse

Source- and
location-specific

Appendix D



Model Results



- * Streamflow and TP loads per subbasin

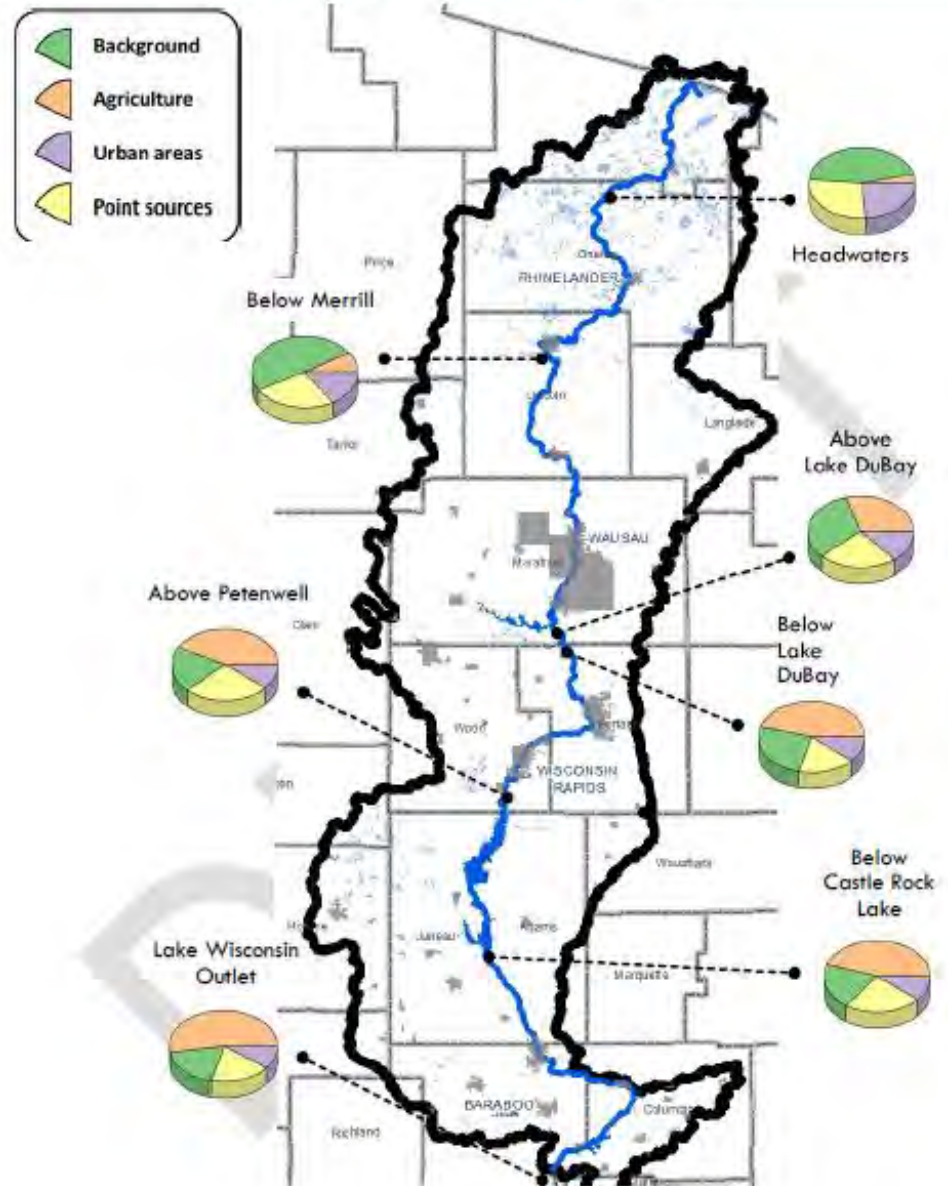
- * TP loads split by source type

Figure 18. Total phosphorus yields per subbasin

Quantification of Sources

- * Background
- * Agricultural
- * Urban Runoff
- * Industrial and Municipal Point Sources

Total Maximum Daily Load for Total Phosphorus in the Wisconsin River Basin



Report Section 5

Pollutant Loading Capacity

TMDL Development Process



- * For each reach:
 - * Loading capacity = Water Quality Target * Flow
- * For lakes and reservoirs a response model is needed to simulate loads based on waterbody characteristics to determine pollutant response (algal growth vs TP)

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Great Lakes

- Lake Michigan = 7 µg/L
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²Excludes wetlands and lakes less than 5 acres

Phosphorus Criteria

Wisconsin River Basin

Minocqua-Kawaguesaga



Big Eau Pleine



Petenwell



Castle Rock



Lake Redstone



Lake Wisconsin



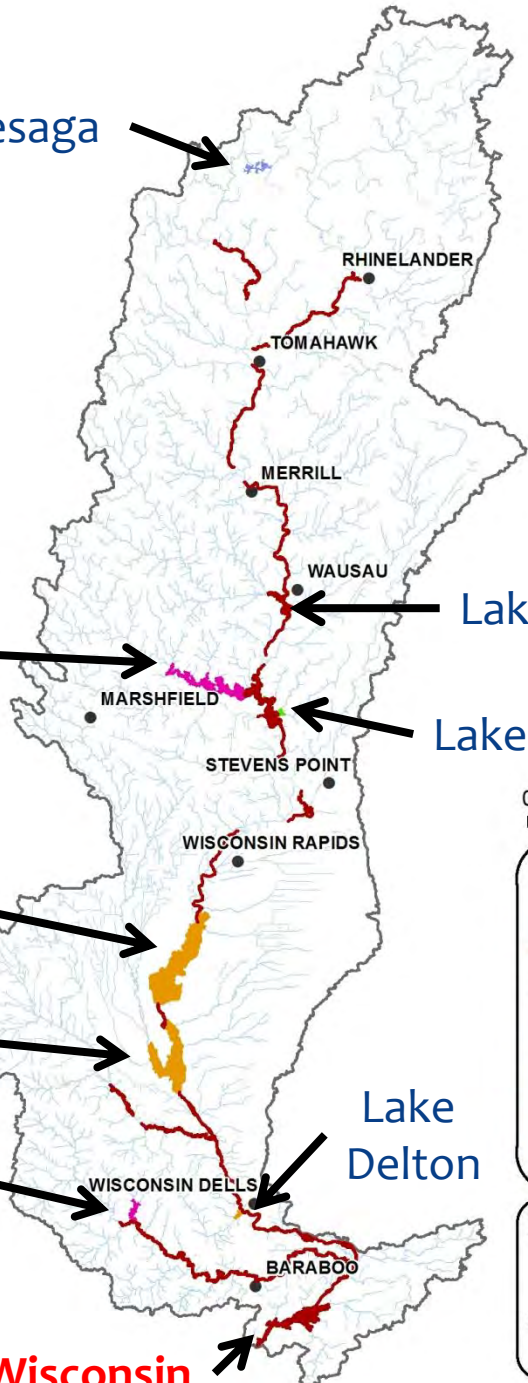
Lake Wausau



Lake Du Bay



Lake Delton



Stream / River Phosphorus Criteria

- 75 ug/L
- 100 ug/L

Reservoir Phosphorus Criteria

- 15 ug/L
- 20 ug/L
- 30 ug/L
- 40 ug/L
- 75 ug/L
- 100 ug/L

- Notes:
1. Phosphorus criteria delineated using the 24K Hydro layer and the 100 ug/L river extent narrative from administrative code NR 102.06
 2. Streams with a stream order of two or greater are shown. All smaller tributaries stream are assumed to have a phosphorus criteria of 75 ug/L.

Site-Specific Total Phosphorus Criteria for Petenwell Flowage, Castle Rock Flowage, and Lake Wisconsin

- Wisconsin Administrative Code NR 102.06(7) states that site-specific criteria (SSC) for total phosphorus (TP) may be adopted where site-specific data and analysis using scientifically defensible methods and sound scientific rationale demonstrate a different criterion is protective of the designated use of the specific surface water segment or waterbody.

Recreational Use

Allowable phosphorus concentrations calculated to support recreational use and health by preventing excessive algae blooms.

(Chlorophyll *a* shall not exceed 20 $\mu\text{g/L}$ more than 30% of days during July 15 – Sept 15).



Site-Specific Total Phosphorus Criteria for Petenwell Flowage, Castle Rock Flowage, and Lake Wisconsin

- TP SSC were estimated for Petenwell Flowage, Castle Rock Flowage, and Lake Wisconsin that are expected to meet the chlorophyll *a* target for recreational use.
- The SSC are based on empirical estimates of the effects of TP concentration, river discharge, and day of year on chlorophyll *a* concentration.

Site-Specific Total Phosphorus Criteria for Petenwell Flowage, Castle Rock Flowage, and Lake Wisconsin

Reservoir	Existing TP Criterion ($\mu\text{g/L}$)	Recommended Site-Specific TP Criterion ($\mu\text{g/L}$)
Petenwell Flowage	40	53
Castle Rock Flowage	40	55
Lake Wisconsin	100	47

Calculated to support recreational use by preventing excessive algae (Chlorophyll a shall not exceed 20 $\mu\text{g/L}$ more than 30% of days during July 15 – Sept 15)

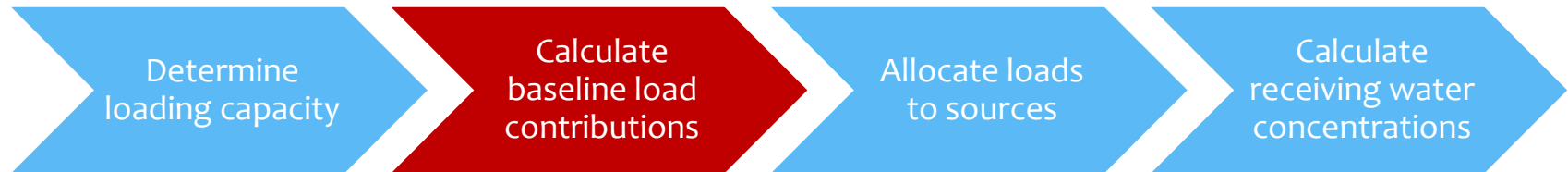
Site-Specific Criteria (SSC)

- * SSCs will impact the allowable loads to the reservoirs, and thus the resulting allocations. DNR has included two sets of allowable loads and allocations in the TMDL.
- * SSCs must be adopted by rule. DNR can submit the TMDL to USEPA containing SSC allocations prior to adoption of the SSC; however, the SSC allocations become effective once both the TMDL and SSC have been approved by USEPA.

Report Section 6

Pollutant Load Allocations

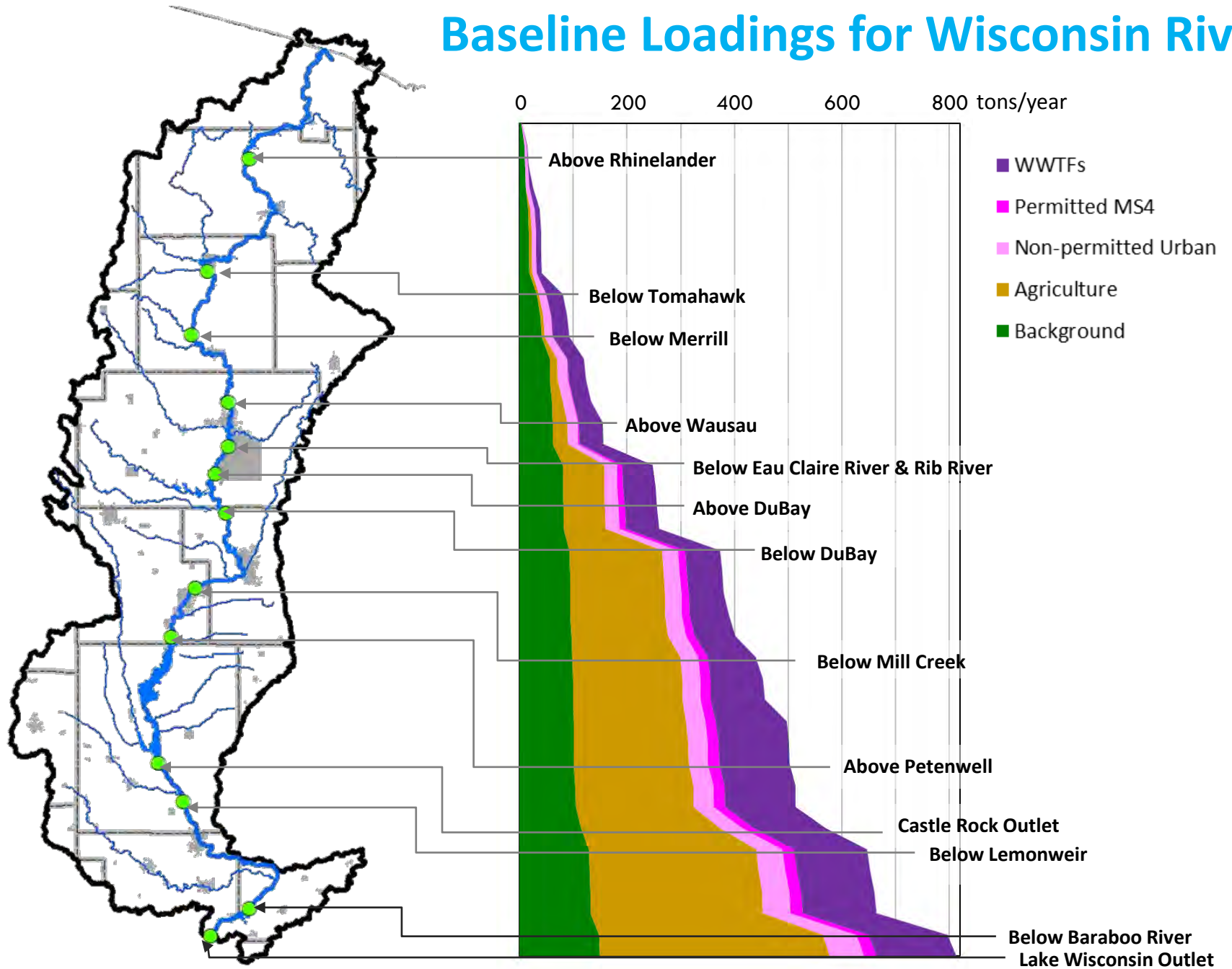
TMDL Development Process



- * Baseline conditions based on existing regulatory requirements or current discharge for point sources.
- * Nonpoint source baseline represents existing land management (See Section 5).

Baseline Loadings for Wisconsin River

0 200 400 600 800 tons/year



TMDL Development Process



- * Allocation strategy consistent with other TMDLs.
 1. Start with baseline condition,
 2. evaluate alternative limits and bring everyone to the same level,
 3. apply needed reductions using a proportional reduction (by mass, equal percent reduction) approach.
- * Allocations driven by local water quality requirements **and** downstream reservoirs.
- * Calculated allocations with and without SSC.

Load Allocation



+

Waste Load Allocation



Load Allocation

- * Agricultural (includes load from CAFO land spreading)
- * Non-permitted Urban
- * Background

Waste Load Allocation

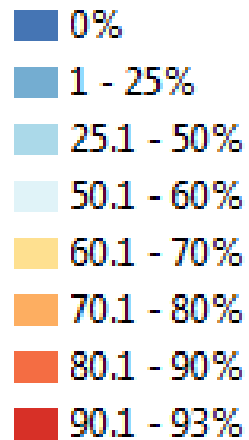
- * WWTPs / POTWs
- * Industries
- * Permitted MS4s
- * Non-Metallic Mines
- * Construction Sites
- * NCCWs
- * CAFOs

Percent Reduction Maps

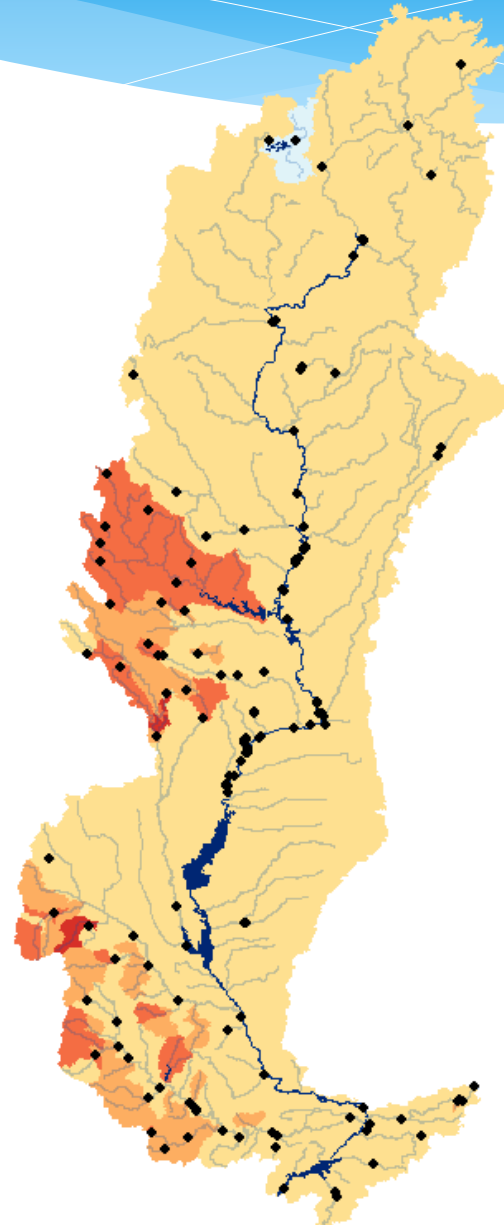
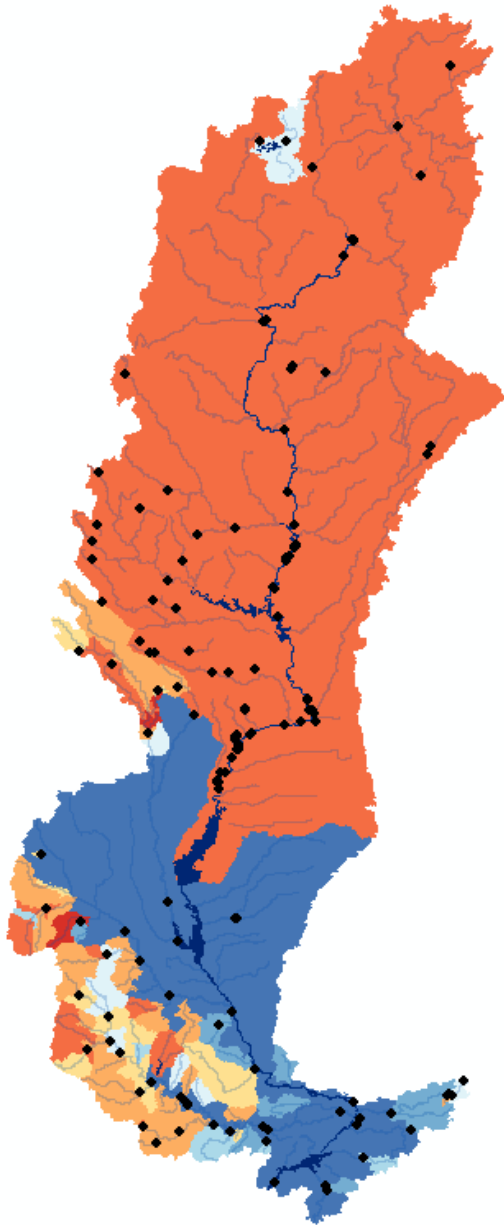
**Current
Criteria**

SSC

Percent Reduction



Outfalls



Allocations – Appendices J and K

Appendix J – Allocations (current criteria):

Table J-1: Total Phosphorus Annual Load Allocations by Reach

Table J-2: Annual Total Phosphorus Wasteload Allocations by Permitted Point Source

Table J-3: Annual Total Phosphorus Wasteload Allocations by MS₄

Table J-4: Annual Total Phosphorus Percent Reduction by Reach and to Meet Total Local Water Quality vs. Downstream Requirements:

Appendix K – Proposed Site Specific Criteria Allocations:

Table K-1: Total Phosphorus Annual Load Allocations by Reach

Table K-2: Annual Total Phosphorus Wasteload Allocations by Permitted Point Source

Table K-3: Annual Total Phosphorus Wasteload Allocations by MS₄

Table K-4: Annual Total Phosphorus Percent Reduction by Reach and to Meet Total Local Water Quality vs. Downstream Requirements:

Allocations to MS4s & NPS

- * Permitted MS4s (See Table J3 and J4, K3 and K4)
 - * Apply percent reduction to “no-controls”/baseline condition as outlined in the TMDL MS4 guidance.
 - * Extended compliance option with agreed upon benchmarks.
- * Nonpoint Source (See Table J4 and K4)
 - * Compliance with more stringent performance standards is voluntary unless promulgated through NR 151.004 to become a performance standard. Cost share requirements still in place.

Point Source Allocation Tables

TABLE K-2. ANNUAL TOTAL PHOSPHORUS WASTELOAD ALLOCATIONS DUE TO SSC BY PERMITTED POINT SOURCE

Facility Name	Permit Number	TMDL Reach	TP Wasteload Allocation (lbs/yr)			Downstream Reservoir
			Total	Local	Downstream	
ABBOTSFORD WASTEWATER TREATMENT FACILITY	0023141	323	160	159	1	Big Eau Pleine
ABBYLAND FOODS INC. ABBOTSFORD PLANT	0057436	323	198	197	1	Big Eau Pleine
ADAMS WASTEWATER TREATMENT FACILITY	0023159	202	474	0	474	Lake Wisconsin
ANTIGO CITY OF	0022144	216	1,826	553	1,273	Lake Wisconsin
ARPIN WASTEWATER TREATMENT FACILITY	0031267	314	42	42	0	
ATHENS WASTEWATER TREATMENT FACILITY	0022365	215	203	147	56	Lake Wisconsin
AUBURNDALE WASTEWATER TREATMENT FACILITY	0022411	211	112	112	0	
BARABOO WASTEWATER TREATMENT FACILITY	0020605	179	2,424	0	2,424	Lake Wisconsin
BLENKER SHERRY SANITARY DISTRICT WWTF	0031950	207	30	26	5	Lake Wisconsin
BLUFFVIEW SANITARY DISTRICT WWTF	0064939	1	49	0	49	Lake Wisconsin
BROKAW WASTEWATER TREATMENT FACILITY	0022136	217	39	0	39	Lake Wisconsin
CAMBRIA WASTEWATER TREATMENT FACILITY	0023523	176	137	122	15	Lake Wisconsin

Reserve Capacity and MOS

Reserve Capacity

- * A set aside of the portion of the allocation to allow for future growth and new dischargers.
- * Evaluated different options and selected an option that allows a flexible approach for growth.

Margin of Safety

- * Required by EPA; the MOS accounts for uncertainty in the modeling, monitoring, and allocation process.
- * Can be implicit or explicit; we met with stakeholders and worked out an implicit MOS.

Allocations to Wastewater

- * As a result of the TMDL, wastewater facilities will receive mass allocations that meet water quality standards for both local and downstream reservoirs.
- * Once EPA has approved the TMDL, the next permit must contain an expression of the WLAs consistent with the TMDL.

Report Section 7

TMDL Implementation



TMDL Implementation

- * Wis. Stat. s. 283.31(3)(d)3. requires DNR to include effluent limits in permits to meet TMDL wasteload allocations. Chapter NR 217 implements wasteload allocations for phosphorus in wastewater permits.
- * Chapters NR 151 (NR 151.004 and NR 151.005) and NR 216 implement TMDL allocations for nonpoint and permitted stormwater sources.



- ❖ Statewide nonpoint standards
- ❖ County Programs
- ❖ Cost Share Programs
- ❖ Lake Planning and Protection Grants
- ❖ River Grants
- ❖ DATCP Soil and Water Programs
- ❖ Federal Grant Programs
- ❖ Alternative Point Source Compliance Options

Wastewater Implementation Individual Permits

- * Due to the uncertainty of TMDL approval timelines and the department's commitment to permit backlog reduction, prior to TMDL approval permits will be issued based on the requirements of NR 217 Wis. Admin. Code.
- * After TMDL approval, inclusion of TMDL-based limits will take place at either the next permit issuance or as part of a permit modification depending on permit timing and other site-specific factors.
- * Because the allocations are protective of both local and downstream water quality, the department intends to issue/modify permits with TMDL-based limits in lieu of NR 217.13 derived limits after TMDL approval.

Wastewater Implementation Limit Calculation

- * WLAs in the TMDL are expressed as long term averages.
- * For continuously discharging facilities, the WLAs will be converted into limits expressed as either monthly averages or a combination of monthly average and 6 month averages.
- * For non-continuous discharges, methods for converting WLAs into permit limits will be determined on a case-by-case basis.
- * Additional detail will be provided at future face-to-face stakeholder meetings and guidance document updates

Wastewater Implementation Compliance Strategies

- * TMDL-based limits are water quality-based limits, therefore the same suite of compliance approaches apply pre- and post TMDL
 - * Traditional alternatives:
 - * Treatment optimization, upgrade or regionalization
 - * Innovative alternatives:
 - * Trading or adaptive management
 - * Variance alternatives:
 - * Individual or multi-discharger variance

Wastewater Implementation General Permits

- * TMDL contains aggregate WLAs for general permits
- * General permits will be evaluated to determine if additional requirements are necessary to ensure that discharges remain consistent with TMDL goals

Could include issuing individual WPDES permits to facilities that currently hold general permits

Report Chapter 8

Public Participation, Outreach, and Comments

Outreach and Stakeholder Participation

Met with agricultural groups and permit holders providing review opportunities and comments of the TMDL development.

Facilitated or participated in numerous workshops looking at both development and implementation issues associated with the TMDL.



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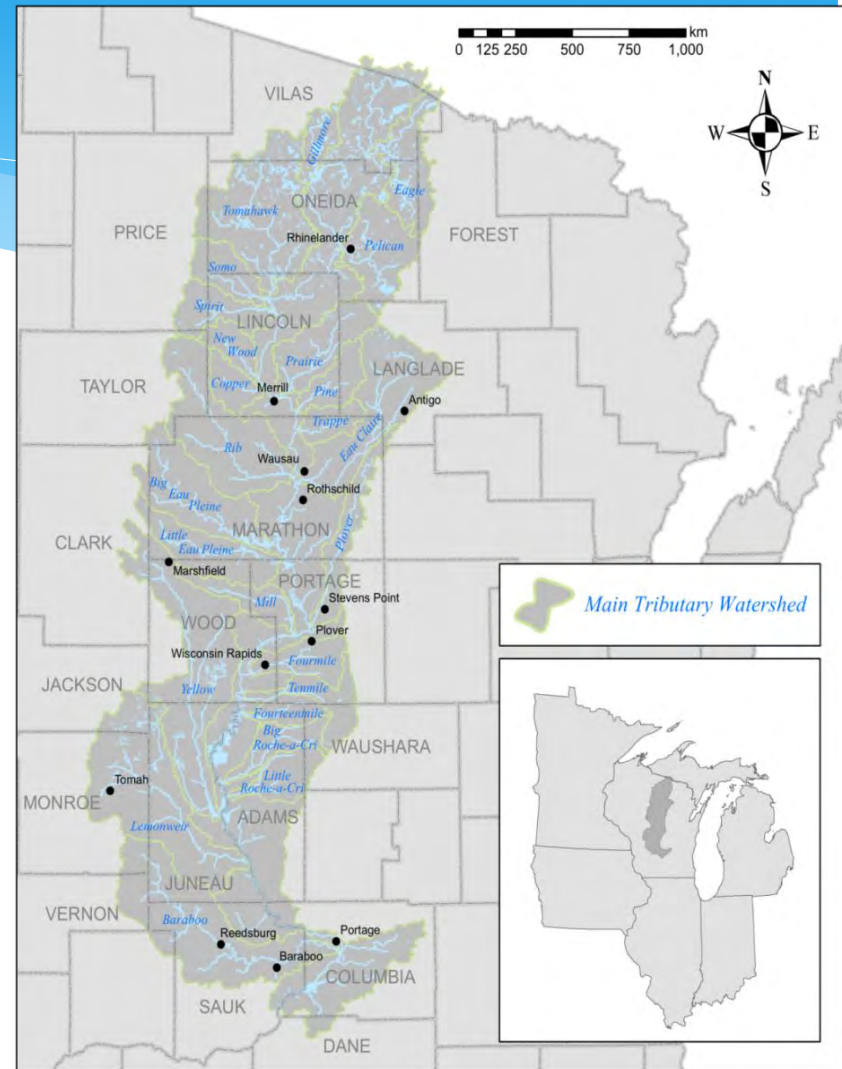
1,900+
subscribers

Informational Meetings

- * March 5th Stakeholder Meeting in Rhinelander at 1:00 to 4:00 at Quality Inn
- * March 6th Stakeholder Meetings in Stevens Point at the Courthouse Annex Building at 10:00 to 12:00 and 4:00 to 6:00
- * March 14th Stakeholder Meetings in Portage at the Portage Public Library at 10:00 to 12:00 and 4:00 to 6:00

Comments Accepted Through April 23rd, 2018

- * Official 30-Day Public Informational Hearing Process
- * Finalize TMDL and Send for EPA Approval



More Information and Access Report

Wisconsin River Total Maximum Daily Load (TMDL)

A framework for water quality improvement



The DNR, together with many partners throughout the basin, are working to improve water quality of the Wisconsin River, its reservoirs and tributaries. The Total Maximum Daily Load (TMDL) study and implementation plan will provide a strategic framework and prioritize resources for water quality improvement in the Wisconsin River Basin.

<http://dnr.wi.gov/topic/tmdls/>

Draft report downloads

The following files will be discussed during the Feb. 21, 2018, webinar.

- ▼ [Draft Report](#)
- ▼ [GIS Data](#)
- ▼ [Appendices](#)

Questions and Comments

Comments accepted through April 23, 2018



<http://dnr.wi.gov/topic/tmdls/>

DNRWisconsinRiverTMDL@wisconsin.gov

For those who are unable to attend the sessions, comments on the initial draft TMDL plan, which will be released at the webinar, may be submitted to DNRWisconsinRiverTMDL@wisconsin.gov or by mail to:

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