

DRAFT COMMUNICATION PLAN

Announcement of Draft 2014 Impaired Waters List

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1. Topics and Talking Points

Listing Process and Background Information

- Water quality standards help protect Wisconsin's abundant and valuable water resources from pollution.
- Assessing waterbodies against water quality standards and identifying impaired waters that don't meet standards is part of the overarching federal Clean Water Act (CWA) framework for restoring impaired waters.
- "Designated uses" are the uses that water resources and their associated aquatic communities provide.
- Under the CWA, states are required to monitor and assess their waters to determine if they meet water quality standards and thereby support the designated uses they are intended to provide.
- Waters that do not meet their designated uses because of water quality standard violations are impaired.
- States are then required to develop a list of impaired waters that require pollution reduction plans, known as Total Maximum Daily Loads (TMDLs), and to submit an updated list to the U.S. Environmental Protection Agency (EPA) every even-numbered year for approval.
- Waterbodies are removed from the list when new data indicates that water quality standards are attained.
- The 2010 impaired waters list is the most current, EPA-approved list.
- The final draft 2012 list was submitted to EPA for approval in August 2013.
- Primary pollutant listings are mercury, total phosphorus and total suspended solids.

2014 Listing Updates*

- More than 1,700 waterbodies were evaluated in compiling the 2014 impaired waters list.
- 751 waterbodies were determined to be meeting water quality standards.
- The comprehensive draft 2014 impaired waters list, which includes previously listed impaired waters, contains a total of 856 waterbody listings.
- 246 waterbody listings are newly proposed for the list, and 192 are waterbodies that have never been listed before.
- A majority of the proposed waterbody listings are based on exceedance of the total phosphorus criteria (175). While some of these waterbodies had been listed previously for other impairments, 137 of these waterbodies are newly listed.

- A total of 53 proposed waterbody listings are based on poor biological condition with unknown causes (i.e. pollutants). While some of these waterbodies had been listed previously for other impairments, 40 of these waterbodies are newly listed.
- Chloride standards were exceeded in five waterbodies that are proposed to be listed as impaired.
- Thirteen waterbodies are proposed to be removed from the list.

What DNR does (and does not do) with the Impaired Waters List

- DNR uses the impaired waters list as a management tool to identify waterbodies that need restoration and to track their restoration status.
 - Impaired waterbodies that have existing clean-up plans or with plans in development are uniquely categorized and tracked.
- Delisted waterbodies that are restored as a result of cleanup projects are often reported as success stories to EPA and the public.
- DNR **does not** use the impaired waters list as a measure of statewide water quality trends.
 - Changes in the number of listed waters can be driven by a number of factors, including changes in water quality standards, assessment methods and monitoring strategies.
 - In order to identify waters in need of restoration, DNR's surface water monitoring strategy includes targeted monitoring of waters that are suspected to be impaired; therefore, the total of assessed waters is biased toward impaired waters.

How does Wisconsin compare to other states* (see message map #2 on pg. 17)

- Neighboring states differ in the amount of surface waters that have been assessed.
- Wisconsin lists a proportionally smaller amount of assessed waterbodies as impaired compared to neighboring states (based states' 2010 Reports to Congress).
- Minnesota proposes to add 275 new waters to their draft 2014 list and Michigan proposes to add 214.
 - Important caveats:
 - The impaired waters list is not a good "yardstick" of statewide water quality or for comparing to neighboring states.
 - The amount of surface waters present and funding available for monitoring varies among states, which affects the proportion of waters that are assessed in a state.
 - Water quality standards, assessment methods and monitoring strategies change over time and also vary among states.

What is the trend in overall water quality in Wisconsin?

- Water quality trends in the state have been both positive and negative over the last 20 years.
- Phosphorus, ammonia and suspended solids (sediment) concentrations have **decreased** at a majority of long-term trend river monitoring stations. This is probably due to a combination of decreases in wastewater effluent concentrations, improved farming practices, construction site erosion control, and urban stormwater management.
- Nitrate concentrations have **increased** at a majority of long-term trend river monitoring stations.
 - This is probably due to increased nitrogen fertilizer use on crop fields, and may reflect increased corn production due to high corn prices.
 - Nitrate levels are rising, but are not yet at levels where they would make water unsafe to drink.
 - Better nutrient management planning on farms could help stop this trend before it becomes a more serious problem.
- Chloride concentrations have **increased** at a majority of long-term trend river monitoring stations.
 - This is probably due to increased road salt use during the winter.
 - Use of new application methods and ice melting products could help stop this trend.
- Overall, water quality in the state is improving in many ways, which is due to efforts resulting from the Clean Water Act, Wisconsin's Priority Watershed Program, and new approaches for controlling water pollution.
- Chloride and nitrate remain challenges, but we have methods available that can address these problems.

Impaired Waters Listing Consequences*

- States are required to develop TMDLs for each impaired waterbody/pollutant combination on the impaired waters list.
- Before a TMDL is developed, new and existing point source dischargers with a reasonable potential to cause or contribute to an impairment are required to have water quality-based effluent limits (WQBELs) in their permits. A discharger's phosphorus loads may be offset through a phosphorus trade or other means with another discharge of phosphorus to the impaired waterbody.
- Of approximately 2,400 point source dischargers in the state, only 56 are direct dischargers to newly proposed impaired waters.
 - More than half (34) of these are in areas where TMDLs are actively being developed for phosphorus. For these facilities, phosphorus permit limits would be based on the pollutant load allocations included in the TMDLs.

Impaired Waters Listing Benefits*

- Impaired waters listings provide impetus for completing watershed restoration studies.
- The amount (acres/miles) of impaired waters determines the amount of The EPA-administered Section 106 grant allocation to states. Currently, of the factors considered in the grant allotment calculation, water quality impairments are weighted highest (35%).
- Federal and state cost-share grants may be available to landowners for projects that address nonpoint sources of pollution, and some grants provide incentives for restoration of impaired waters. For certain grants, applicants with projects that help restore impaired waters have a greater chance of receiving funding.
 - The USDA's Environmental Quality Incentives Program (EQIP)
 - Targeted Runoff Management (TRM) grants
 - EPA Section 319 Grant (funded projects must reduce pollutant(s) to an impaired water)

*See message maps (Attachment C)

2. Goal

Increase internal staff and public awareness about the draft 2014 Impaired Waters List updates, overall listing process and opportunities for public comment.

3. Target audiences

This communication plan outlines the strategy for communicating the impaired waters listing process and updates proposed for the 2014 draft list to internal staff, external partners and the general public.

4. Main message(s)

- Wisconsin's proposed 2014 list of lakes and rivers that do not meet water quality standards is available for public comment for the next 30 days.
- This list is just one part of what we do to protect, assess and restore our waters and to meet federal requirements under the Clean Water Act. We have a systematic procedure to fulfill this obligation.
- Overall, long-term trend and other monitoring shows that water quality in Wisconsin is good in about three-quarters of the waters we monitor. It has improved and continues to improve in many ways due to limits on pollutants from wastewater dischargers, from urban and rural runoff, and from new approaches for controlling water pollution.
 - 75 percent of Wisconsin lakes assessed for a 2012 report to Congress exhibited excellent or good water quality, and the number of lakes judged as such has grown since 1980 in each of the classifications DNR has assigned lakes.

- 70 percent of Wisconsin rivers and streams assessed for a 2012 report to Congress supported healthy aquatic life
- Lakes and rivers that do not meet water quality standards are considered impaired and identified on a list of impaired waters that is updated every two years. More work is needed to improve water quality in waters on this list.
- The listing process can accelerate the recovery process because the states must develop restoration plans for listed waters . Being listed may qualify the waters for state and federal cleanup grants. So listing is an important first step on the road to DNR working with partners to restore waters to benefit people, wildlife and the economy.
- For the 2014 impaired waters list, the number of newly listed waterbodies is 192, of which 137 are for lakes or river stretches that exceed new phosphorus standards that took effect in December 2010.
 - Many of these new listings are in areas with known water quality problems and restoration plans are already in development.
 - Their listing does not necessarily mean that phosphorus levels in these waters got worse. It means many of these waters were not assessed for previous listing cycles, or that phosphorus levels may be improving in some but not enough yet to meet the new standards.
 - In fact, phosphorus, ammonia and sediment levels have decreased over the past 20 years in major rivers as a result of stricter limits in wastewater, improved farming practices, construction site erosion control, and urban stormwater management

5. Communication tools

Public Comment Period

A federally mandated comment period will be held for a 30-day duration (30 days is the minimum timeframe recommended by EPA). The draft list and comment period will be publicly noticed via a press release and DNR website, Twitter and GovDelivery.

Informational Meetings

Informational meetings will be held online for DNR water resources staff and the public via Microsoft LiveMeeting and GoTo Webinar, respectively, to review the listing process, discuss the proposed listing updates and provide an opportunity to ask questions. The meetings will be recorded and posted on the DNR website.

Presentations to select media contacts

Reporter(s) from select media outlets (i.e. Milwaukee Journal Sentinel; Lee Bergquist and/or Don Behm) will be invited to a meeting where DNR will deliver a

presentation on the impaired waters listing process and proposed 2014 listing updates and provide an opportunity for in-person interviews.

DNR Website

The DNR website content for the impaired waters program will be updated. The main topic page will include links to two new fact sheets: 1) description of the impaired waters listing process and 2) a summary of 2014 listing updates. Enhancements were made to the online Impaired Waters Search Tool to make the tool more user-friendly. The impaired waters related data used by the DNR's online mapping tool (Surface Water Data Viewer) will be updated to reflect changes to impairment status.

Follow-up Communications

Following the comment period, responses to comments will be developed and the draft list modified as necessary based on the comments received. The revised draft list, incorporating comments, and a response to comments document will be posted on the DNR website and sent to GovDelivery subscribers. (revise/draft documents: Aaron Larson, Ashley Beranek; review documents: Brian Weigel, Susan Sylvester, Ken Johnson; website posting: Lisa Helmuth)

6. Work plan

Public Comment Period

A 30-day public comment period is tentatively scheduled for Jan. 30 – Mar. 1, 2014. The draft list and comment period will be publicly noticed via the following communications:

- Press release from Central Office
 - Draft release (1/21/14): Lisa Gaumnitz
 - Review release (1/23/14): Aaron Larson, Brian Weigel, Susan Sylvester, Ken Johnson, Bill Cosh
 - Approval (1/27/14): Susan Sylvester, Ken Johnson, Matt Moroney
 - Invite select media outlets to DNR presentation and in-person interviews (1/27/14).
 - Send out news release/posting online (1/30/14): Lisa Gaumnitz
- Posting list materials and summary on DNR's website
 - Draft website content (1/9/14): Aaron Larson, Lisa Helmuth
 - Review website content on development website (i.e. not viewable by the public) (1/17/14): Brian Weigel, Aaron Larson, Lisa Gaumnitz, Lisa Helmuth, Brian Yulga
 - Revise website content, if needed (1/27/14): Lisa Helmuth
 - Post website live (1/29/14): Lisa Helmuth

- GovDelivery message (2,500+ subscribers) with links to website content
 - Draft message (1/27/14): Aaron Larson
 - Review message (1/29/14): Brian Weigel
 - Send message: (1/30/14): Aaron Larson

Informational Meeting for DNR staff

DNR water resources staff will be invited to an internal meeting online (via Microsoft LiveMeeting) to review the listing process, discuss the proposed listing updates and provide an opportunity to ask questions (tentatively scheduled for 1/22/14). The meeting will be recorded and posted on the DNR intranet (internal website). (presenter: Aaron Larson; website posting: Lisa Helmuth)

Public Meeting/Webinar

DNR will also hold an informational public meeting (online webinar facilitated by UW Extension) to present information and answer questions from the public about the listing process, the draft list and impaired waters in general (tentatively scheduled for 2/12/14). The meeting will be recorded and posted on the DNR website. (presenter: Aaron Larson; chat line responses: Ashley Beranek; facilitator: John Exo, UW-Extension; website posting: Lisa Helmuth)

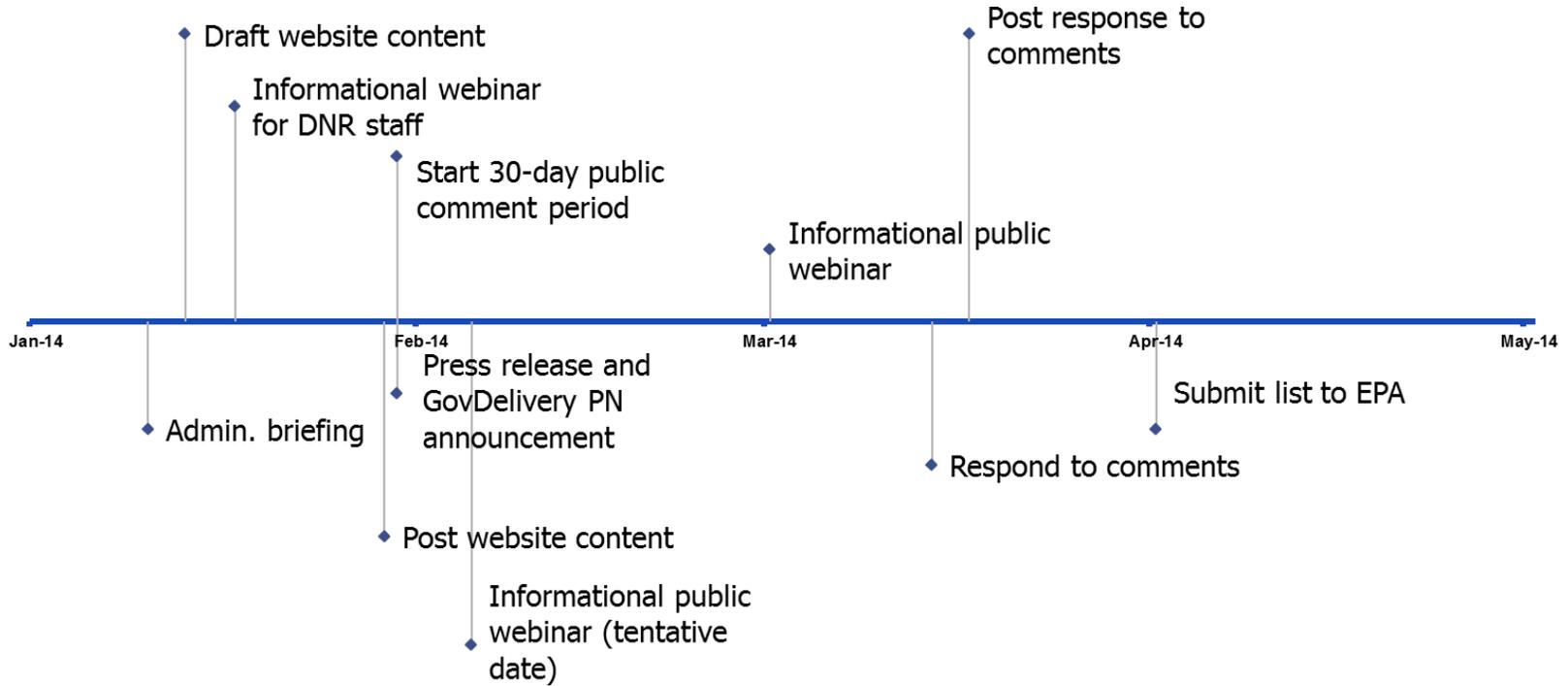
Response to Public Comments

After incorporating comments, an updated draft list (if needed) and a response to comments document will be posted on the DNR website and distributed to GovDelivery subscribers (3/17/14). (revise/draft documents: Aaron Larson, Ashley Beranek; review documents: Brian Weigel, Susan Sylvester, Ken Johnson; GovDelivery announcement: Aaron Larson; website posting: Lisa Helmuth)

Timeline

Date	Event
01/10/2014	Admin. Briefing
01/17/2014	Draft website content
01/23/2014	Informational webinar for DNR staff
01/31/2014	Post website content
02/03/2014	Press Release and GovDelivery message announcing public webinar and start of comment period
02/03/2014	Start 30-day public comment period
02/12/2014	Informational public webinar
03/01/2014	End 30-day public comment period
03/14/2014	Respond to comments
03/17/2014	Post response to comments and updated list on website and distribute to GovDelivery subscribers
04/01/2014	Submit list to EPA

Communication Plan Timeline for Draft 2014 Impaired Waters List Rollout



7. Performance measures

- Google analytics will be utilized to monitor website visits/downloads and use of related online tools (map viewer and impaired waters search tool).
- Numbers of GovDelivery subscribers to the impaired waters topic are tracked.
- Number of participants in internal and public informational meetings will be tracked.
- Public webinar attendees will be surveyed when they register for the meeting to gather some initial feedback on which topics they are most interested in learning about related to impaired waters.
- Anecdotal feedback from EPA, DNR water resources staff and stakeholders will be informally solicited.
- News media contacts will be documented.

8. Attachments

A. 2014 Listings Summary Numbers

B. Visuals/Charts

C. Message Maps

D. One-page fact sheets

Attachment A. 2014 Listings Summary Numbers

ASSESSMENT UNITS (AUs)

2014 New AU listings: 290

Current (up through 2012) 303(d) AU Listings: 841

Total AUs on 2014 full list: 1131

AU-Pollutant

2014 AU TP Listings: 216

TP AUs Covered by TMDLs in development: 86, 40%

WATERBODIES (WBICs)

2014 WBIC listings: 246

Current (up through 2012) 303(d) WBIC Listings: 664

Total WBICs on 2014 full list: 856

WBIC-Pollutant

2014 WBIC Biology Listings: 53

2014 WBIC TP Listings: 175

TP WBICs Covered by TMDLs in development: 70, 40%

Never before listed Waterbodies

2014 New WBIC (Waterbody) Listings: 192

2014 New WBIC (Waterbody) TP Listings: 137 (49, 36% covered by TMDLs in development)

2014 New WBIC (Waterbody) Biology Listings: 40 (3, 8% covered by TMDLs in development)

Notes:

There are 246 waterbodies (WBICs) proposed for the 2014 list (192 never before listed).

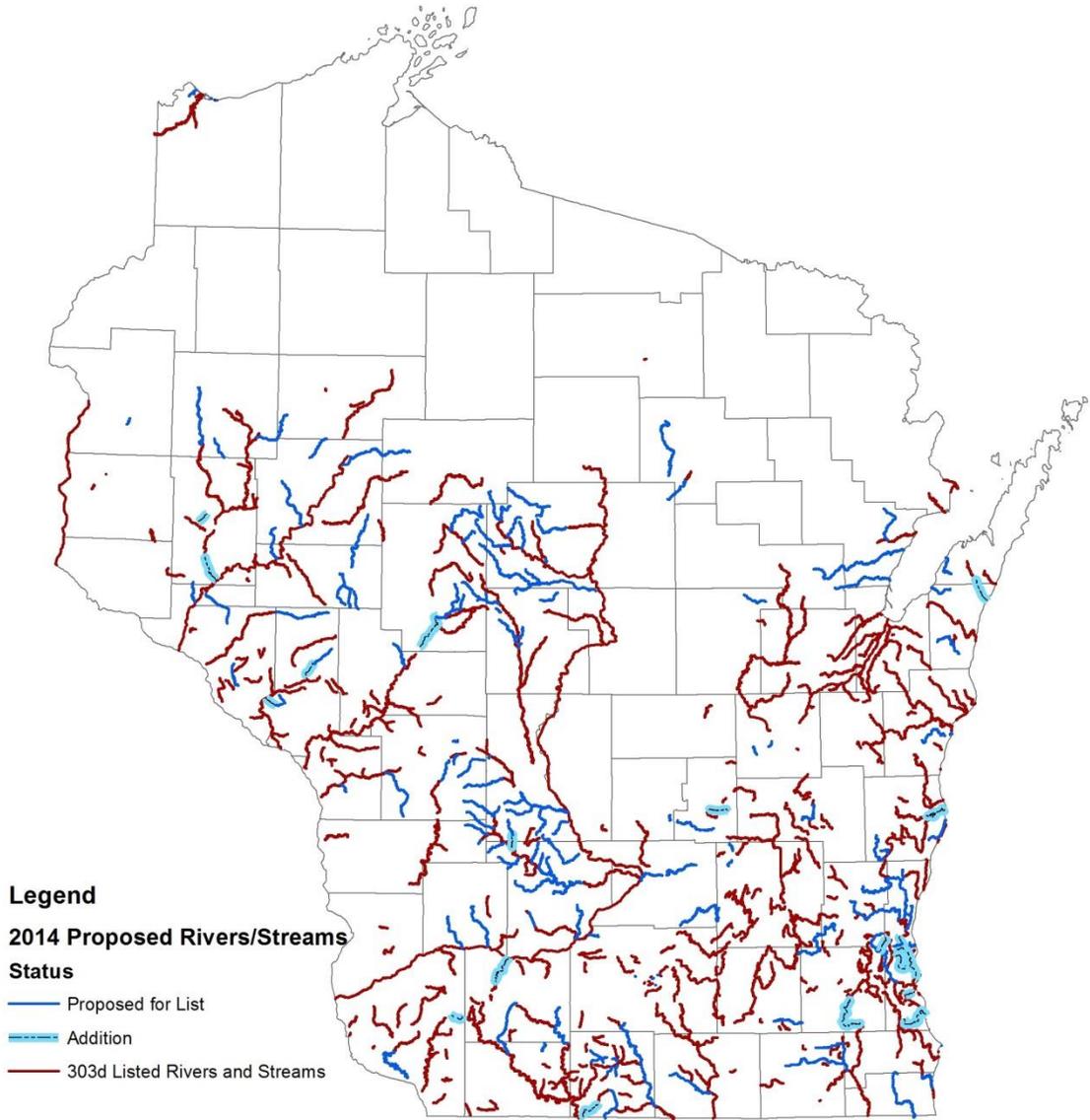
These 246 WBICs include ones that are 303d listed for other things or already listed for the pollutant in question due to multiple AUs. Of the 246 listings for 2014, 192 waterbodies (WBICs) are new, never before listed.

In working with summary numbers within the 2014 list all listings were considered regardless of whether or not the WBIC had been listed for something before.

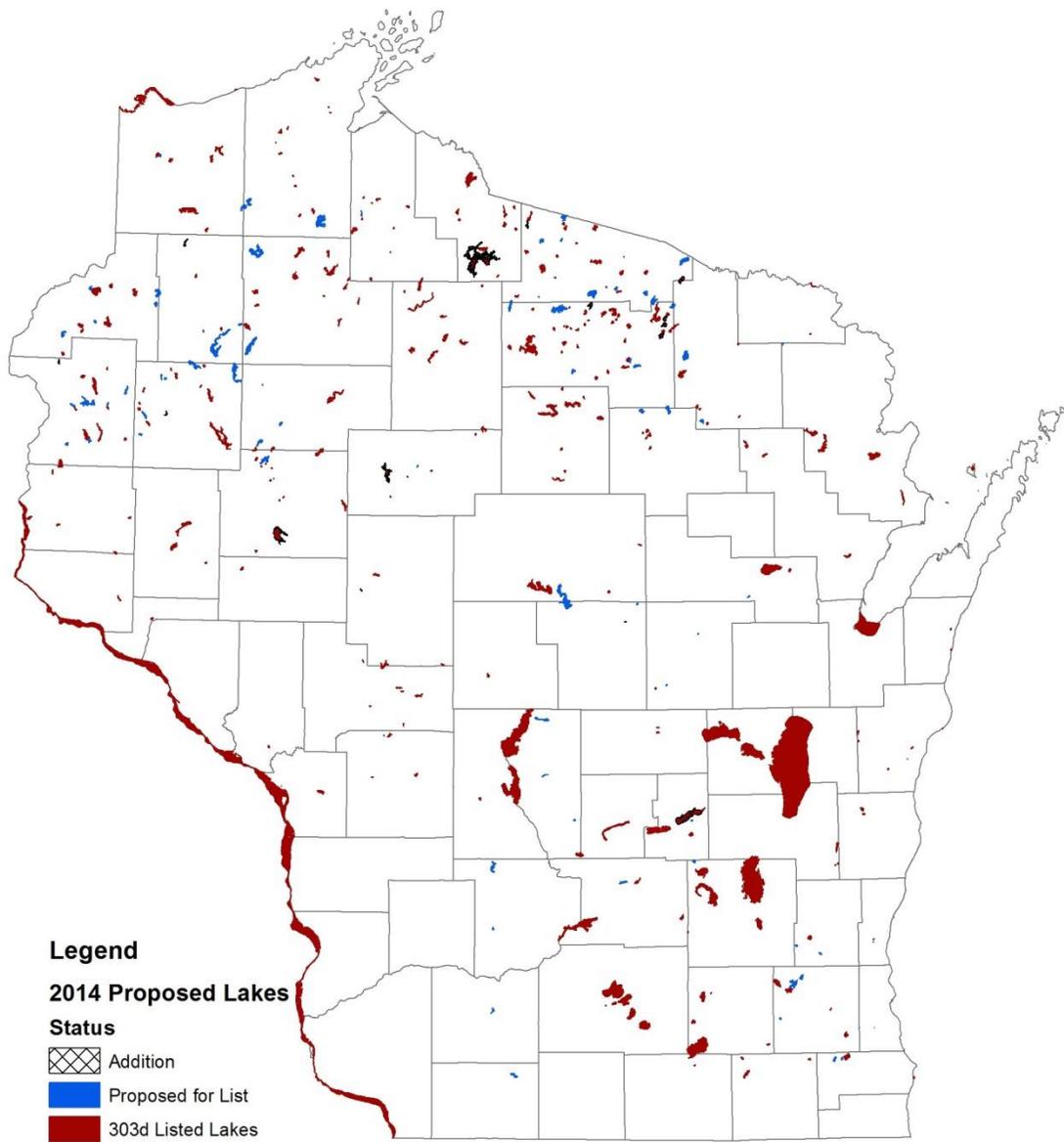
- 96 Lakes/Impoundments (80 never before listed),
- 146 Rivers/Streams (111 never before listed),
- 4 beaches (1 never before listed)

Attachment B. Visuals/Charts

All Listed Rivers/Streams

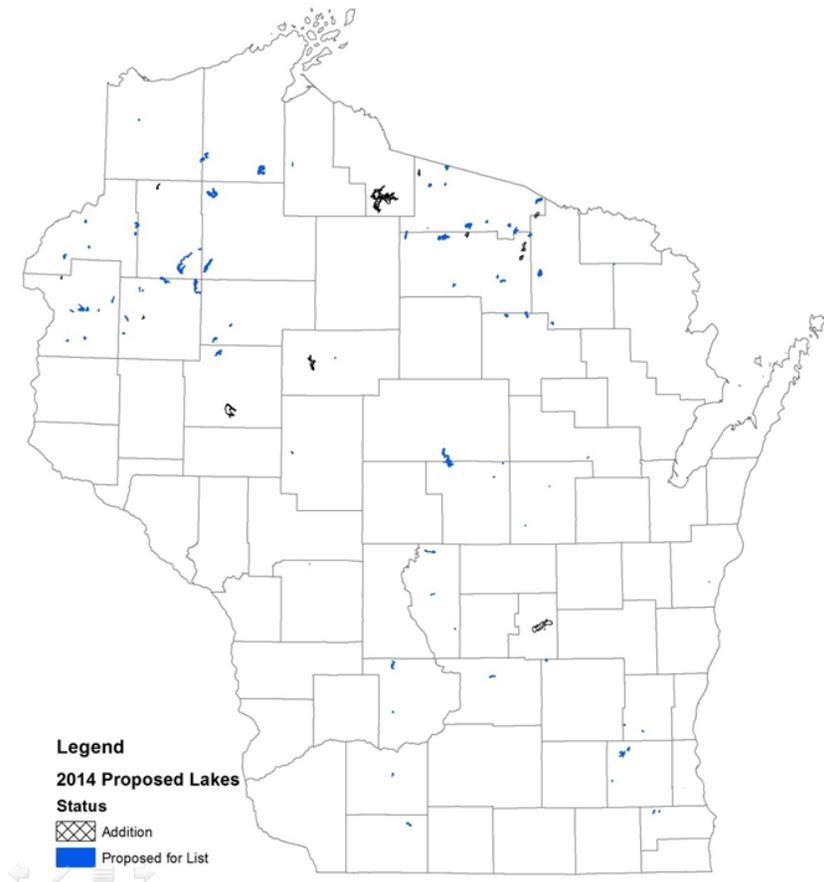


All Listed Lakes/Reservoirs

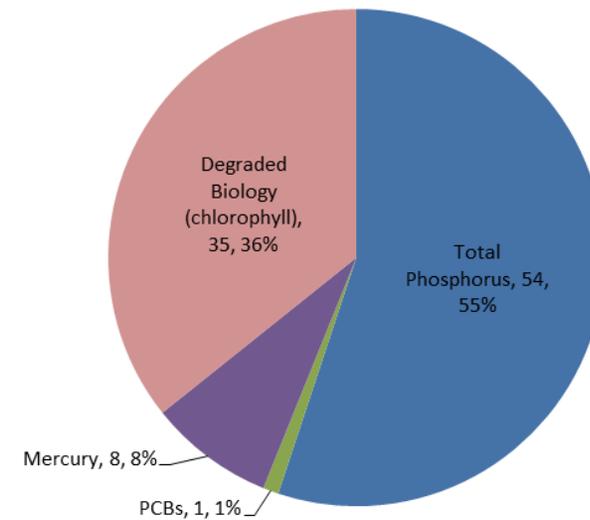


Lakes and Impoundments

New 2014 Proposed Listings



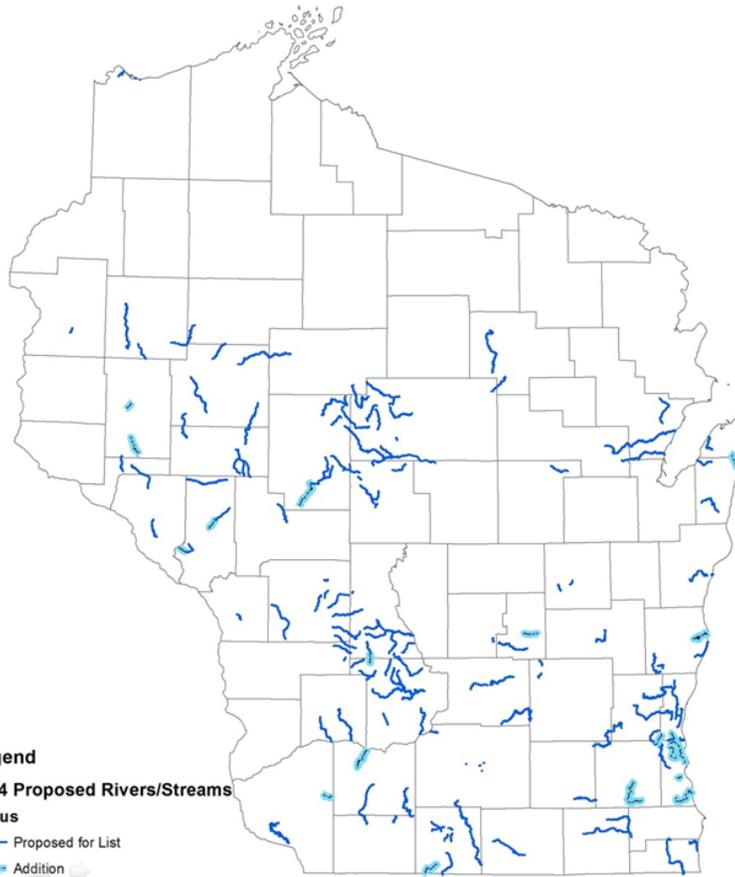
**96 Lakes and Impoundments*
(80 never before listed)**



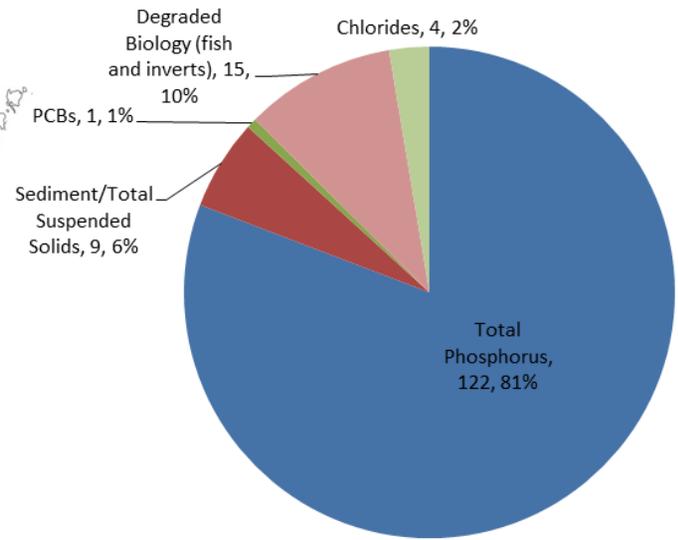
*some waterbodies have multiple pollutant listings

Rivers and Streams

New 2014 Proposed Listings

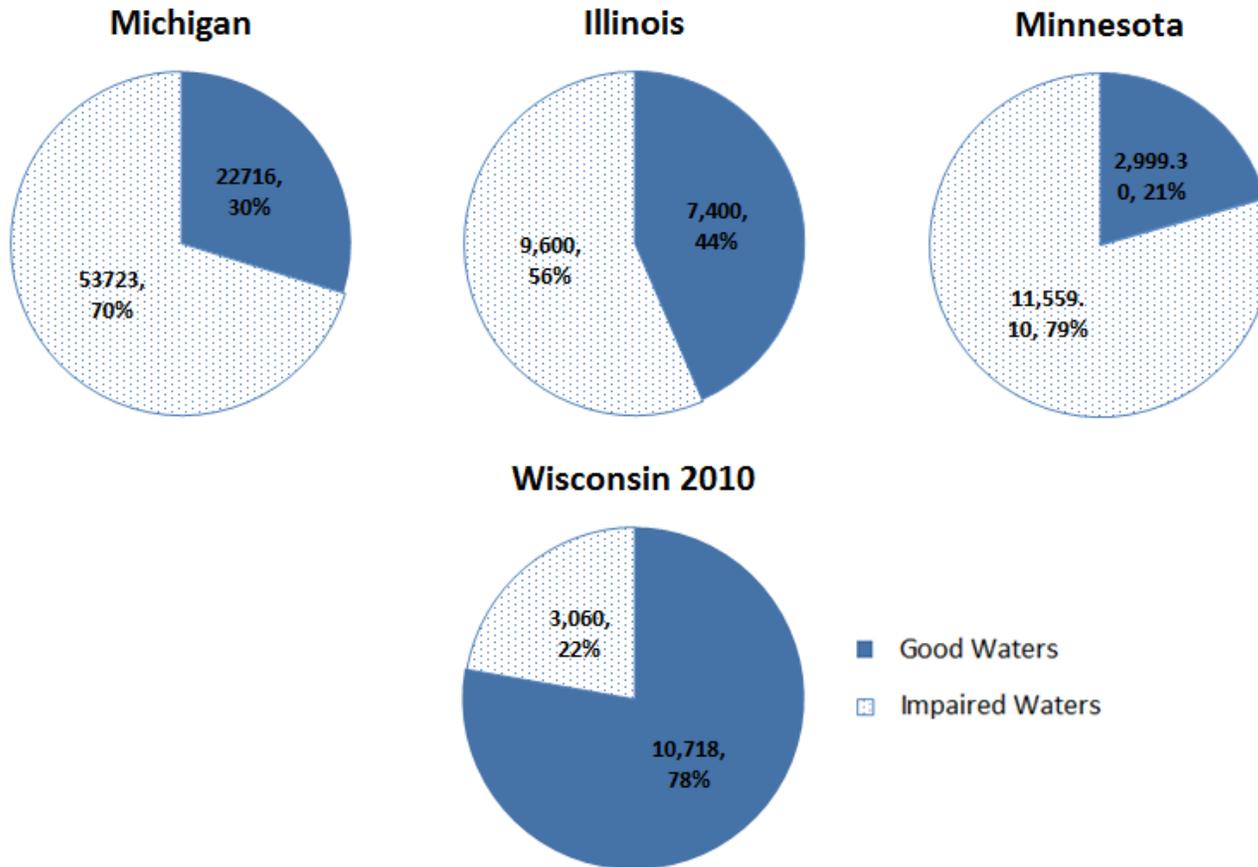


**146 Rivers and Streams*
 (111 never before listed)**



*some waterbodies have multiple pollutant listings

State Comparisons – Rivers/Streams



Information sources: Wisconsin's 2010 Integrated Report and EPA's ATTAINS website for other states

C. Message Maps

Message Map 1 Audience: Public Date Updated: 1/30/14 Question or Concern: What has changed in this list compared to the previous list?		
Key Message 1 Of the 192 newly proposed waterbody listings, a majority (137) are waterbodies that exceed total phosphorus criteria.	Key Message 2 A total of 40 new waterbody listings are based on poor biological condition with unknown causes.	Key Message 3 Thirteen waters are proposed to be removed from the list.
Supporting Fact 1-1 New phosphorus listings may be the result of revised assessment methods or new data showing impairments.	Supporting Fact 2-1 These listings are based on health of aquatic life (fish and aquatic bugs) and levels of algal growth (chlorophyll).	Supporting Fact 3-1 One restored stream is proposed to be removed from the list, Argus School Branch in Green County, based on healthy physical habitat and biological conditions.
Supporting Fact 1-2 Targeted monitoring was conducted since the last impaired waters list to fill data gaps for waters suspected to be phosphorus impaired.	Supporting Fact 2-2 Measures of biological condition provide the most direct measure of a waterbody's ability to support aquatic life - one of the uses formally designated in WI's water quality standards.	Supporting Fact 3-2 Four beaches are proposed to be removed based on beach sample E. coli concentrations.
Supporting Fact 1-3 Watershed restoration studies (i.e. TMDLs) currently in development will address a portion (49, 36%) of the newly listed phosphorus impaired waterbodies.	Supporting Fact 2-3 The cause of the biological impairment will need to be identified before developing a restoration plan.	Supporting Fact 3-3 Eight waters are to be removed based on levels of mercury in fish tissue.

<p align="center">Message Map 2 Audience: Public Date Updated: 1/17/14 Question or Concern: How does Wisconsin compare to neighboring states in numbers of assessed and impaired waterbodies? Information sources: WI's 2010 and 2012 Integrated Report and EPA's ATTAINS website for other states* *Assessment data from other states not available for 2012 assessment cycle.</p>		
<p>Key Message 1 Neighboring states differ in the amount of surface waters present and funding available for monitoring, which affects the number/amount of waters that have been assessed.</p> <p>In 2010, we assessed approximately 13,800 stream miles and 762,700 acres of lakes.</p> <p>In 2012, we assessed approximately 15,600 stream miles and 752,500 acres of lakes.</p>	<p>Key Message 2 According to the US EPA's database, Wisconsin lists a proportionally smaller amount of assessed waterbodies as impaired compared to neighboring states.</p> <p>In 2010, we listed as impaired approximately 3,100 stream miles (22% of assessed) and 186,400 acres of lakes (24% of assessed).</p> <p>In 2012, we listed as impaired approximately 4,600 stream miles (30% of assessed) and 221,200 acres of lakes (29% of assessed).</p>	<p>Key Message 3</p>
<p>Supporting Fact 1-1 In 2010, Minnesota Pollution Control Agency (MPCA) assessed approximately 14,500 stream miles and 3,758,400 acres of lakes.</p>	<p>Supporting Fact 2-1 In 2010, Minnesota Pollution Control Agency (MPCA) listed as impaired approximately 11,600 stream miles (79% of assessed) and 3,589,300 acres of lakes (96% of assessed).</p>	<p>Supporting Fact 3-1</p>
<p>Supporting Fact 1-2 In 2010, Illinois Environmental Protection Agency assessed approximately 17,000 stream miles and 148,000 acres of lakes.</p>	<p>Supporting Fact 2-2 In 2010, Illinois Environmental Protection Agency listed as impaired approximately 9,600 stream miles (57% of assessed) and 144,200 acres of lakes (97% of assessed).</p>	<p>Supporting Fact 3-2</p>
<p>Supporting Fact 1-3 In 2010, Michigan Department of Environmental Protection assessed approximately 76,400 stream miles and 872,200 acres of lakes.</p>	<p>Supporting Fact 2-3 In 2010, Michigan Department of Environmental Protection listed as impaired approximately 53,700 stream miles (70% of assessed) and 311,200 acres of lakes (36% of assessed).</p>	<p>Supporting Fact 3-3</p>

Message Map 3 Audience: Public Date Updated: 1/30/14 Question or Concern: What are the implications of impaired waters listings?		
Key Message 1 States are required to develop pollution reduction plans, known as Total Maximum Daily Loads (TMDLs), for each impaired waterbody and pollutant combination on the impaired waters list.	Key Message 2 Before a TMDL is developed, new and existing point source dischargers with a reasonable potential to cause or contribute to an impairment are required to have water quality-based effluent limits (WQBELs) equal to the phosphorus criterion of the receiving water.	Key Message 3 Negative perceptions of the impaired waters program include the perceived stigma of an impaired waters designation.
Supporting Fact 1-1 TMDLs set the amount of pollutants a waterbody can receive from identified sources and still meet water quality standards.	Supporting Fact 2-1 A discharger's phosphorus loads may be offset through a phosphorus trade or other means with another discharge of phosphorus to the impaired waterbody.	Supporting Fact 3-1 Declining property values is a concern for some landowners with properties (particularly lakeshore properties) near impaired waters.
Supporting Fact 1-2 The proposed 2014 listing updates include 137 new waterbody phosphorus listings. Of these, 49 (36%) will be addressed by TMDLs in development.	Supporting Fact 2-2 Of approximately 2,400 point source dischargers in the state, only 56 are direct dischargers to newly proposed phosphorus impaired waters.	Supporting Fact 3-2 Declining property values can affect individual landowners and economics of entire communities; but with property rights, come property responsibility.
Supporting Fact 1-3 Approximately 15% of the comprehensive listings of impaired waters are currently addressed by existing EPA-approved TMDLs.	Supporting Fact 2-3 More than half of these discharges (34) are in areas where TMDLs are actively being developed for phosphorus. For these facilities, phosphorus permit limits would be based on the pollutant load allocations included in the TMDLs.	Supporting Fact 3-3 Policy questions include whether restoring impaired waters generates more benefits than costs and how to distribute the costs equitably. Those who receive economic benefit from the source of the impairment may be more likely to oppose an impaired waters listing.

Message Map 4 Audience: Public Date Updated: 1/17/14 Question or Concern: What are the benefits of impaired waters listings?		
Key Message 1 Impaired waters listings provide impetus for restoring impaired waters.	Key Message 2 Federal and state cost-share grants may be available to landowners for projects that address nonpoint sources of pollution, and some grants provide incentives for restoration of impaired waters.	Key Message 3 The amount (acres/miles) of impaired waters determines the amount of The EPA-administered Section 106 grant allocation to states.
Supporting Fact 1-1 Impaired water listings may serve as a springboard for development of watershed-based restoration plans.	Supporting Fact 2-1 Landowners applying for USDA's Environmental Quality Incentives Program (EQIP) incentive payments for land that adjoins impaired waters have a greater chance of receiving funding.	Supporting Fact 3-1 Currently, of the factors considered in the grant allotment calculation, water quality impairments are weighted highest (35%).
Supporting Fact 1-2 States develop Total Maximum Daily Load (TMDL) studies, a type of watershed restoration plan, for impaired waters that establish pollutant loads reductions to impaired waters.	Supporting Fact 2-2 Eligible recipients of Targeted Runoff Management (TRM) grants are selected based on an application score, and projects that would implement practices that help to address water quality impairment for listed waters adds 35 points to the total score.	Supporting Fact 3-2 These grant funds are used, in part, to support DNR's surface water quality monitoring program.
Supporting Fact 1-3 Impaired waters designations have led to the formation of local lake, stream or watershed organizations and partnerships. These groups are often involved in restoring impaired waters.	Supporting Fact 2-3 For TRM projects to also qualify for Section 319 federal funding, the project <i>must</i> reduce pollutant(s) to an impaired water.	Supporting Fact 3-3

<p align="center">Message Map 5 Audience: Public Date Updated: 1/17/14 Question or Concern: Do the added impaired water listings mean that water quality is getting worse?</p>		
<p>Key Message 1 The impaired waters list is not a good measure of statewide water quality trends.</p>	<p>Key Message 2 When a waterbody is added to the list, it does not necessarily mean the condition of the waterbody has recently gotten worse.</p>	<p>Key Message 3 Overall water quality in the state is improving in many ways due to efforts resulting from the Clean Water Act, Wisconsin's Priority Watershed Program, and new approaches for controlling water pollution.</p>
<p>Supporting Fact 1-1 Changes in the number of listed waters can be driven by several factors, including changes in water quality standards, assessment methods and monitoring strategies.</p>	<p>Supporting Fact 2-1 Factors such as the timeframes over which a waterbody was monitored and changes in the way DNR assesses waterbodies can result in listing status changes for a particular waterbody.</p>	<p>Supporting Fact 3-1 Water quality trends have been both positive and negative at long-term river monitoring stations over the last 20 years.</p>
<p>Supporting Fact 1-2 DNR's surface water monitoring strategy intentionally targets waterbodies that are suspected to be impaired, which allows DNR to identify more waters needing restoration.</p>	<p>Supporting Fact 2-2 Many impaired waters already have restoration plans in place, some of which are currently being implemented, but full restoration is not expected to occur in the near term.</p>	<p>Supporting Fact 3-2 Phosphorus, ammonia and suspended solids (sediment) concentrations have decreased at a majority of long-term trend river monitoring stations. Nitrate and chloride concentrations have increased at a majority of long-term trend river monitoring stations.</p>
<p>Supporting Fact 1-3 Water quality standards are reviewed and may be updated every three years; assessment methods are reviewed and may be updated every two years. These updates can result in listing changes.</p>	<p>Supporting Fact 2-3 Some impaired water restorations can occur over relatively short time frames (i.e. several years), but others can take decades to be fully achieved.</p>	<p>Supporting Fact 3-3 Past efforts have reduced the amount of phosphorus from Wisconsin watersheds to the Mississippi River by about 23% and to Lake Michigan by about 27%.</p>

Attachment D. Fact Sheets

Attached PDF files