

SUMMARY OF PUBLIC COMMENTS AND WDNR RESPONSES

2012 Impaired Waters List

A second public comment period on the Draft 2012 Impaired Waters List, specifically addressing 99 added waters in the newly created 5P Category, was held from April 17, 2012 to May 18, 2012. A total of 87 different entities commented on the changes to the 2012 Impaired Waters List made after the first comment period. The following is a summary of comments and WDNR responses indicating any changes to Wisconsin's Consolidated Assessment and Listing Methodology (WisCALM) and Impaired Waters List. This attachment is submitted to USEPA as part of the Integrated Report. After US EPA staff have reviewed the 2012 Impaired Waters List and this document, additional changes may be made to ensure compliance with federal requirements.

This attachment contains:

- Public Notice of the Public Comment Period
- A list of those who submitted comments
- Individual comments and WDNR responses

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PUBLIC NOTICE OF THE PUBLIC COMMENT PERIOD

NEWS RELEASE, April 17, 2012

99 waters to be added to special watch category for phosphorus impacts

Public comment accepted through May 18, 2012

MADISON - Ninety-nine lakes and rivers exceeding the state's new numeric phosphorus standards but not experiencing biological impacts to aquatic life – like algal blooms -- are being added to Wisconsin's proposed 2012 list of impaired waters.

The Department of Natural Resources is adding the 99 water bodies to a special new “5P” category that has not been used in Wisconsin’s impaired list before this year. WDNR will closely monitor these waters for signs of biological impact and will continue to focus on state impaired waters that are currently experiencing biological impacts.

The public comment period on these proposed additions is open through May 18, 2012.

“Right now, we aren't seeing algal blooms or problems with the fish or insect communities on these waters like we did on the 21 lakes and river segments we originally proposed for listing due to high phosphorus levels,” says Aaron Larson, the WDNR water resources management specialist who coordinates updates of the water body list.

However, after reviewing Wisconsin’s impaired waters recommendation, the U. S. Environmental Protection Agency has asked WDNR to list 121 more lakes or river segments because they exceeded the state's new numeric phosphorus standards, even though available information showed no signs of aquatic life impacts, including harmful algal blooms. WDNR is seeking comment from the public before finalizing the list. Under the federal Clean Water Act, all states are required to submit to the U.S. Environmental Protection Agency every two years a list of water bodies that do not meet water quality standards.

In developing its original proposed list of waters that did not meet water quality, WDNR had determined a water should be listed as impaired if phosphorus levels exceeded the new numeric phosphorus standards and if other biological information verified that aquatic life or recreation were impaired as a result of phosphorus. Most other states list water bodies based solely on biological standards. This is the first time Wisconsin is using the “5P” category to identify a water body for listing solely because sampling exceeded numeric standards. Wisconsin is currently the only state to have adopted numeric phosphorus standards for both rivers and lakes.

WDNR staff reviewed the available data again on the lakes and river segments EPA wanted re-examined and recommended that 99 more waters be listed for the first time in a special “5P” category. Twenty-three waters that EPA asked WDNR to consider will not be included in the new category because WDNR staff concluded the high phosphorus levels were likely temporary, due to the floods in 2007-2008.

Excessive phosphorus levels can grow harmful algae, excessive plants and muddy water in many lakes and rivers and is one of Wisconsin's most common causes of water quality problems. It can also harm fish and insect communities and other parts of the food web.

The 30-day public comment period on the revised list will run from April 17 to May 18, 2012. A small number of other updates were made to the list in response to public comments, and are also available for public review. Search the WDNR website for [impaired waters](#) and click on the button for [View 2012 list](#) of modified waters, as well as the rest of the list that is being submitted to EPA. Comments on these new listing updates may be submitted via e-mail through May 18, 2012, to DNRImpairedwaters@wisconsin.gov or by U.S. mail to Aaron Larson, DNR, Water Evaluation Section (WT/3), P.O. Box 7921, Madison, WI 53707.

FOR MORE INFORMATION CONTACT: Aaron Larson – 608-264-6129; Nicki Clayton – 608-266-0152

LIST OF COMMENTERS

ID#	Commenter Name	Affiliation	Topic	Topic Detail
1	Ellen Z. Darling	Executive Vice President, Zimmer Real Estate Services, L.C.	Lakes	Musky Bay
2	Hugh J. Zimmer	Citizen, Kansas City, MO	Lakes	Musky Bay
3	Mike Persson	President Hayward Lakes Chapter Muskies Inc.	Lakes	Musky Bay
4	Rob Gramlich	American Wind Energy Association	Lakes	Musky Bay
5	Albert W. Zimmer, III	Citizen, Fairway, KS	Lakes	Musky Bay, Sissabagama
6	Alvina Ann Heller	Citizen, Stone Lake, WI	Lakes	Musky Bay, Sissabagama
7	Amy Koonce	Citizen	Lakes	Musky Bay, Sissabagama
8	Angel Diaz	Citizen	Lakes	Musky Bay, Sissabagama
9	Ann & Bob Tellander	Citizen, Property Owner LCO	Lakes	Musky Bay, Sissabagama
10	Barbara and John Seaberg	Citizen, Hayward, WI	Lakes	Musky Bay, Sissabagama
11	Carole Mickschl	Citizen	Lakes	Musky Bay, Sissabagama
12	Charles and Beverly Barnholdt	Citizen, Byron, MN	Lakes	Musky Bay, Sissabagama
13	Charles Buth	Citizen	Lakes	Musky Bay, Sissabagama
14	Cheryl Teri	Citizen, Hayward, WI	Lakes	Musky Bay, Sissabagama
15	Christopher Teri	Citizen	Lakes	Musky Bay, Sissabagama
16	Cindy Cahill	Citizen	Lakes	Musky Bay, Sissabagama
17	Cynthia A. Janacek	Citizen, Hayward, WI	Lakes	Musky Bay, Sissabagama
18	David & Kerstin Schultz	Citizen	Lakes	Musky Bay, Sissabagama
19	David & Sally Nathanson	Citizen, Hayward, WI	Lakes	Musky Bay, Sissabagama
20	David Bradley	Chief Executive Officer, News-Press & Gazette Company	Lakes	Musky Bay, Sissabagama
21	David J. Zimmer	Citizen, Kansas City, MO	Lakes	Musky Bay, Sissabagama
22	David Kalies	Citizen	Lakes	Musky Bay, Sissabagama
23	Deborah Hower	Citizen	Lakes	Musky Bay, Sissabagama
24	Dennis & Susan Rajtora	Citizen	Lakes	Musky Bay, Sissabagama
25	Donna Belke	Citizen	Lakes	Musky Bay, Sissabagama
26	Douglas Orr	Citizen, Atlanta, GA	Lakes	Musky Bay, Sissabagama
27	Ed & Ruth Ricci	Citizens, Rice Lake, WI	Lakes	Musky Bay, Sissabagama
28	Eldridge Bean	Citizen, Huntley, IL	Lakes	Musky Bay, Sissabagama
29	Gary Wolfe	Citizen	Lakes	Musky Bay, Sissabagama
30	Heather Diaz	Citizen	Lakes	Musky Bay, Sissabagama
31	James P. Klabough	Citizen	Lakes	Musky Bay, Sissabagama
32	Janet Kraklow	Citizen, San Diego, CA	Lakes	Musky Bay, Sissabagama
33	Jim & Chris Rugowski	Citizen, Hayward, WI	Lakes	Musky Bay, Sissabagama
34	Jim Coors & Ann Pollock	Citizens	Lakes	Musky Bay, Sissabagama
35	John F. Janacek	Citizen, Hayward, WI	Lakes	Musky Bay, Sissabagama
36	John Fenning & Martha Wright	Citizen	Lakes	Musky Bay, Sissabagama
37	John Heller	Citizen, Stone Lake, WI	Lakes	Musky Bay, Sissabagama
38	John J. Berglund	Citizen, Anoka, MN	Lakes	Musky Bay, Sissabagama
39	Kevin Horrocks	Citizen, Hayward, WI	Lakes	Musky Bay, Sissabagama
40	Kristin E. McMahon	Citizen, Stoddard, WI	Lakes	Musky Bay, Sissabagama
41	Kurt Schroeder	Citizen, La Crosse, WI	Lakes	Musky Bay, Sissabagama
42	Laura Evans	Citizen	Lakes	Musky Bay, Sissabagama
43	Mark E. Berglund	Citizen, Anoka, MN	Lakes	Musky Bay, Sissabagama
44	Mark Laustrup	Citizen, Hayward, WI	Lakes	Musky Bay, Sissabagama
45	Mary & Tom Austin	Citizen, Stone Lake, WI	Lakes	Musky Bay, Sissabagama

46	Mary Jo Plummer	Citizen, Stone Lake, WI	Lakes	Musky Bay, Sissabagama
47	Mary Jordan	Citizen	Lakes	Musky Bay, Sissabagama
48	Matthew Kalies	Citizen	Lakes	Musky Bay, Sissabagama
49	Molly McMahon	Citizen	Lakes	Musky Bay, Sissabagama
50	Patricia A. Harrison	Citizen	Lakes	Musky Bay, Sissabagama
51	Paul & Elna McDonald	Citizen, Stone Lake, WI	Lakes	Musky Bay, Sissabagama
52	Richard H. Ford	Citizen, Carpinteria, CA	Lakes	Musky Bay, Sissabagama
53	Richard Hassinger	Citizen	Lakes	Musky Bay, Sissabagama
54	Richard M. Polsky	Citizen, New York, NY	Lakes	Musky Bay, Sissabagama
55	Robert & Debbie Matusiak	Citizen, Inverness, IL	Lakes	Musky Bay, Sissabagama
56	Robert A. Brown	Citizen, St. Joseph, MO	Lakes	Musky Bay, Sissabagama
57	Robert Bean	Citizen, Naperville, IL	Lakes	Musky Bay, Sissabagama
58	Robert Cipolle	Citizen, Hayward, WI	Lakes	Musky Bay, Sissabagama
59	Robert E. McMahon, Jr.	Citizen, Stoddard, WI	Lakes	Musky Bay, Sissabagama
60	Robert Matusiak	Citizen	Lakes	Musky Bay, Sissabagama
61	Ron Fess	Citizen	Lakes	Musky Bay, Sissabagama
62	Ruth B. Gramlich	Citizen	Lakes	Musky Bay, Sissabagama
63	Sara Terwilliger Cyr	Citizen, Delanco, NJ	Lakes	Musky Bay, Sissabagama
64	Sarah Howard	Citizen	Lakes	Musky Bay, Sissabagama
65	Signe G. Schroeder	Citizen, La Crosse, WI	Lakes	Musky Bay, Sissabagama
66	Steve Umland	Citizen, Stone Lake, WI	Lakes	Musky Bay, Sissabagama
67	Susan Horrocks	Citizen, Hayward, WI	Lakes	Musky Bay, Sissabagama
68	Susan McMurray	Citizen	Lakes	Musky Bay, Sissabagama
69	Susie Berglund	Citizen	Lakes	Musky Bay, Sissabagama
70	Thomas R. Gebeck	Citizen	Lakes	Musky Bay, Sissabagama
71	Tom Burgess	Citizen, Hayward, WI	Lakes	Musky Bay, Sissabagama
72	Warren McNeil	Citizen	Lakes	Musky Bay, Sissabagama
73	William Ferris	Citizen, Stone Lake, WI	Lakes	Musky Bay, Sissabagama
74	Eric Wheeler	Citizen, Stone Lake, WI	Lakes	Musky Bay, Sissabagama, Ring Lake
75	Hazel Worre	Citizen	Lakes	Sissabagama
76	Suzie Rabideau	Secretary, Post Lakes Protection & Rehabilitation District	Lakes	Upper Post Lake
79	R.E. Ciriacks	Citizen, Black River Falls, WI	Steams	Cranberry Marsh Point Sources
80	Margaret Pulera	Citizen, Darien, WI	Streams	Turtle Creek, Rock Co.
81	Marcy Kamerath	EPA	WisCALM	Tribal Lands
82	Peter Swenson	EPA	WisCALM	Flood-affected waters, Lake Mendota
83	Betsy Lawton	MEA Staff Attorney	WisCALM	5P Category
83	David Wantland	GROWMARK, Government Affairs Division	WisCALM	5P Category
84	Matt Zoschke, CCA	County Conservationist, Clark County Land Conservation Dept.	WisCALM	5P Category
85	Stafford Rosenbaum, LLP	Stafford Rosenbaum Attorneys on behalf of Municipal Environmental Group (MEG)	WisCALM	5P Category
86	Timm P. Speerschneider	DeWitt Ross & Stevens Law Firm on behalf of the Wisconsin State Cranberry Growers Association	WisCALM	5P Category
87	Lyman C. Welch	Water Quality Program Director, Alliance for the Great Lakes	WisCALM	Beaches, Nearshore Zones
88	Ami Rupnow	Citizen, Environmental Educator	WisCALM	Nutrients
89	Carol Steinhart	Citizen	WisCALM	Nutrients

COMMENTS AND RESPONSES

1) Comments: Phosphorus-Related Assessments and Category 5P Listings

A. Phosphorus data collected prior to the 2010 promulgation of the phosphorus numeric criteria “should not be retrofitted to apply to those standards.”

(DeWitt Ross & Stevens S.C. on behalf of the Wisconsin State Cranberry Growers Association)

RESPONSE: WDNR considers phosphorus a significant pollutant of concern and, therefore, promulgated phosphorus criteria in December 2010. The promulgation date of Wisconsin’s numeric phosphorus criteria has no bearing on the degree to which previously collected phosphorus data is representative of current conditions. To be used for waterbody assessments, phosphorus data must meet certain minimum data requirements. Selection of representative phosphorus data is outlined in Sections 4.4 and 5.3 of Wisconsin’s Consolidated Assessment and Listing Methodology (WisCALM, 2014).

B. Phosphorus-related assessment methods incorporating biological corroboration of impairment should be maintained.

(DeWitt Ross & Stevens S.C. on behalf of the Wisconsin State Cranberry Growers Association; GROMARK, Government Affairs Division; Stafford Rosenbaum LLP on behalf of the Municipal Environmental Group – Wastewater Division)

RESPONSE: WDNR considers phosphorus a unique pollutant, compared to toxic substances, in that it does not cause a direct impairment to designated uses. Rather, excess phosphorus can trigger a broad and complex range of physical, chemical and biological responses, such as excess plant growth, dissolved oxygen depletion, increases in pH, habitat degradation, or changes in food web dynamics. These responses to phosphorus pollution contribute to impaired recreational and aquatic life designated uses in some of Wisconsin’s waters. Because site-specific factors may influence relationships between phosphorus concentrations and environmental responses, WDNR feels that biological responses provide a more effective and direct measure of a water’s impairment status.

DNR expressed, in a note in Wis. Adm. Code NR 102.06(7), its intent to incorporate measures of biological response to excess nutrients in its impairment evaluation:

“When placing a water body on the 303(d) list as impaired for phosphorus, the department considers factors such as frequency and duration of criterion exceedances, the time of year of the exceedance and the magnitude of each exceedance above the applicable criterion. The department may also choose to consider other factors such as the concentration of suspended algae and floating plants; density of benthic algae; macrophyte density; minimum and daily change in dissolved oxygen levels due to diurnal swings; water clarity; and natural background phosphorus concentrations...”

Still, in their February 17, 2012 letter to WDNR, EPA stated that "waters that meet minimum data requirements and exceed numeric total phosphorus criteria must be placed on the 303(d) list in order to implement Wisconsin water quality standards as written and to meet Clean Water Act (CWA) goals." In response, WDNR has begun developing an administrative rule revision proposal to modify our assessment and impaired waters listing processes and more formally incorporate biological confirmation of impairment into these processes. If the proposed rule revisions are adopted, WDNR would make assessment and listing decisions in accordance with

the revised rule. Under the proposed rule revisions, waters that exceed applicable phosphorus concentration thresholds and are biologically impaired would be included on the Impaired Waters List. Whereas, waters that exceeded applicable phosphorus concentration thresholds only and are not biologically impaired would be delisted from the Impaired Waters List. In the interim, assessments and listing decisions will follow current WisCALM guidance, which implements the existing phosphorus criteria in Wis. Adm. Code NR 102.06 by including such waters in the 5P category.

C. “The addition of these waters [Category 5P] would impose additional regulatory burdens upon the point sources where there is no demonstrated environmental impact... If these additional waters are added to the impaired waters lists, we respectfully request the acknowledgment that an indication of an exceedance of a water quality criterion without biological impacts suggests that a site-specific water quality criterion may be appropriate for these water bodies.”

(Stafford Rosenbaum LLP on behalf of the Municipal Environmental Group – Wastewater Division)

RESPONSE: WDNR acknowledges that some waterbodies may have unique physical and/or biological characteristics and these site-specific conditions may warrant phosphorus criteria that are more or less stringent than the applicable statewide criteria. During the most recent Triennial Water Quality Standards Review period (2011-2014), WDNR staff and external partners also identified the need to develop guidance to derive site-specific phosphorus criteria as a high priority. Because of the identified need and time-sensitivity of this guidance document in the implementation of existing phosphorus criteria, WDNR is in the process of developing procedures for deriving site-specific criteria for phosphorus pursuant to s. NR 102.06(7), Wis. Adm. Code.

D. Category 5P is unnecessary, as waters that exceed numerical phosphorus criteria may be placed in Category 3 (insufficient information to assess). Category 5 waters require a Total Maximum Daily Load (TMDL), so waters with no evidence of biological impairment should not be placed in Category 5P.

(DeWitt Ross & Stevens S.C. on behalf of the Wisconsin State Cranberry Growers Association; GROMARK, Government Affairs Division)

RESPONSE: The WisCALM guidance used to develop the April 2012 draft Impaired Waters List was rescinded on September 5, 2012, and those waters designated in Category 5P were reassessed using a revised assessment methodology (WisCALM, 2014). The revised methodology contained in the 2014 WisCALM maintains the use of Category 5P, which includes those waters that exceed the applicable total phosphorus criteria in Wisconsin Administrative Code NR 102.06 and for which biological data are either unavailable or do not indicate impairment. The decision to maintain the use of Category 5P was made after careful consideration of all comments on the previous assessment methods. The resultant revised draft Impaired Waters List was based on all readily-available representative data and best professional judgment using the 2014 WisCALM guidance.

Category 5 waters are those that are not attaining water quality standards and, as the commenter stated, require a TMDL. This category constitutes Wisconsin’s Impaired Waters List. Until the phosphorus criteria are revised to incorporate biological response indicators, WDNR will continue to utilize Category 5P, a subcategory of the Category 5 impaired waters, which includes those waters that exceed the applicable total phosphorus criteria in NR 102.06 of Wis. Adm. Code, but available biological data do not indicate impairment. However, WDNR does not intend to conduct TMDLs for Category 5P waters until biological impairment is confirmed and, therefore, has assigned Category 5P listings a “low” priority for TMDL development.

E. WDNR should monitor the application of phosphorus water quality criteria to the impaired waters listing process and strive for consistency with other states. Integration of the numeric phosphorus criteria into the impaired waters listing process should be carefully analyzed by all parties involved and not limited to a 30-day comment period.

(DeWitt Ross & Stevens S.C. on behalf of the Wisconsin State Cranberry Growers Association; GROMARK, Government Affairs Division)

RESPONSE: WDNR reviewed several states' phosphorus-related assessment methodologies and water quality criteria when developing our own assessment methods. Several states have developed numeric water quality criteria for nutrients. For example, Nebraska has adopted criteria for nitrogen, Oklahoma has set criteria for total phosphorus for a select group of waters, and Montana has numeric criteria for total nitrogen, total phosphorus, and chlorophyll.

Of the neighboring states reviewed, all have slightly different methods for assessing nutrient impairments due, in part, to the variation in the states' applicable water quality standards. For example, Minnesota's phosphorus standards apply to lakes, and are specific to ecoregion and lake depth. In Michigan, ambient water column phosphorus concentrations are used in conjunction with biological indicators to determine support of aquatic life and wildlife use using best professional judgment, since Michigan currently does not have numeric criteria for ambient concentrations of phosphorus.

In summary, a key difference among Wisconsin and other states' phosphorus-related water quality standards, and associated assessment methods, is the form of the standards in rule (i.e., narrative criteria only, numeric phosphorus criteria only, or a combination of numeric phosphorus and biological criteria). As previously mentioned, WDNR has begun developing a rule revision proposal to incorporate biological criteria in our phosphorus-related impairment decisions.

F. Category 5P waters should be a high priority for biological monitoring.

(Midwestern Environmental Advocates, Inc.)

RESPONSE: WDNR implements a surface water monitoring program as outlined in our monitoring strategy (<http://dnr.wi.gov/topic/SurfaceWater/monitoring.html>). We will monitor Category 5P waters for signs of biological impact by implementing our current tiered monitoring strategy and conducting supplemental monitoring at these waters, as staff and fiscal resources allow. Biological data collected from Category 5P waters will help inform future management decisions, as waters that exceed a phosphorus criterion but do not show biological impairment may be candidates for the development of site specific phosphorus criteria. As mentioned above, the Department has begun the rulemaking process to establish a procedure for developing site-specific criteria for phosphorus and is currently drafting guidance for determining site-specific TP criteria as an alternative to the applicable statewide criteria, in certain cases.

G. WDNR's flooding justification of the decision not to include 23 waters in the 5P category is inadequate. Additional justification is needed, or these waters must be listed as impaired.

(U.S. EPA; Midwestern Environmental Advocates, Inc.)

RESPONSE: The original 23 waters that WDNR characterized as "flood-affected" and excluded from Category 5P were reevaluated using the revised assessment methods (WisCALM, 2014). Of these 23 "flood-affected" waters, six waters are proposed to be placed into Category 3 and the remaining 17 waters will be placed into Category 5P. The six Category 3 waters were determined to have insufficient representative data to assess them in the current listing cycle, because the phosphorus data were available from only one year that was identified as an "extreme weather year," exhibiting unusually high average precipitation and stream flow. As a very general

guideline, an extreme weather year is defined as a year where precipitation, flow, stage/elevation, and/or temperature are above the 90th or below the 10th percentile of the annual averages within the period of record (WisCALM, 2014). Using this guidance and data from regional USGS stream flow gages, WNDR staff determined that, for the waters listed below, available total phosphorus data were collected during an extreme weather year. Data that were collected during an extreme weather year will not be excluded, but rather supplemented with data from an additional year of monitoring in 2013, and the combined dataset from a minimum of two years will be used for assessing these waters in the next listing cycle. A statement of basis and dataset documentation was compiled for these waters and will be forwarded to EPA with the resubmittal of the draft 2012 Impaired Water List.

Water Name	County	WBIC	Seg	USGS Flow Gage Station
De Neveu Creek	Fond du Lac	138700	1	05423500
Little Platte River	Grant	943800	4	05414000
Bad Axe River	Vernon	1639300	1	05408000
Grant River	Grant	956000	1	05413500
Yellowstone River	Lafayette	902500	1	05433000
Baraboo River	Sauk	1271100	7	05405000

2) Comments: Category 5P Individual Waters Listings –

A. “While we do not disagree with WNDR’s intention to list additional waters in Clark County, we do have some concerns with the approach being used to list only portions of these waters or to exclude the listing of waters due to the apparent extreme flooding events.” Popple River (WBIC 1752900), South Fork Popple River (WBIC 1754100), North Fork Popple River (WBIC 1754800), and Cunningham Creek (WBIC 1747900) should have all segments listed for total phosphorus. Phosphorus measurements, though they did not strictly follow the fixed period sampling protocol, supported listing due to phosphorus concentrations. The 2007 and 2008 flood event years’ summer flows were below the long-term median in Cunningham Creek.

(Matt Zoschke, Clark County Land Conservation Department)

RESPONSE: Cunningham Creek (WBIC 1747900) was reassessed using revised assessment methods (WisCALM, 2014), and stream flow data indicate that 2007 and 2008 were not “extreme weather years,” and data collected from these years were used in the revised assessments. Total phosphorus sample data from Cunningham Creek overwhelmingly exceed phosphorus criteria (i.e. two times the applicable criterion); thus, the stream is proposed to be placed in Category 5A.

The Popple River is formed from the confluence of North Fork Popple and South Fork Popple Rivers (Figure 1). The upstream segment of South Fork Popple River (seg. 2) and downstream segment of Popple River (seg. 1) overwhelmingly exceed applicable phosphorus criteria (i.e. two times the applicable criterion) and were proposed for listing under Category 5A. Popple River (1752900) segment 2 and South Fork Popple River (1754100) segment 1 and both segments of the North Fork Popple River (1754800) were initially not listed as impaired due to insufficient data for analysis. After receiving this comment, these two segments (downstream portion of South Fork Popple River and upstream portion of Popple River) were reevaluated and it was determined that these stream segments closely resemble their adjacent segments in terms of natural community classifications and temperature class; therefore, data from these segments were deemed representative of the entire stream. Popple River segment 2 and South Fork Popple River segment 1 were added to the 2012 proposed 303(d) list under Category 5A. North Fork Popple River segments 1 and 2 do not have representative data to assess. Therefore, the North

Fork Popple River will not be added to the impaired waters list at this time; however, WDNR staff are working with the commenter to collect sufficient data to assess this stream in a future listing cycle.

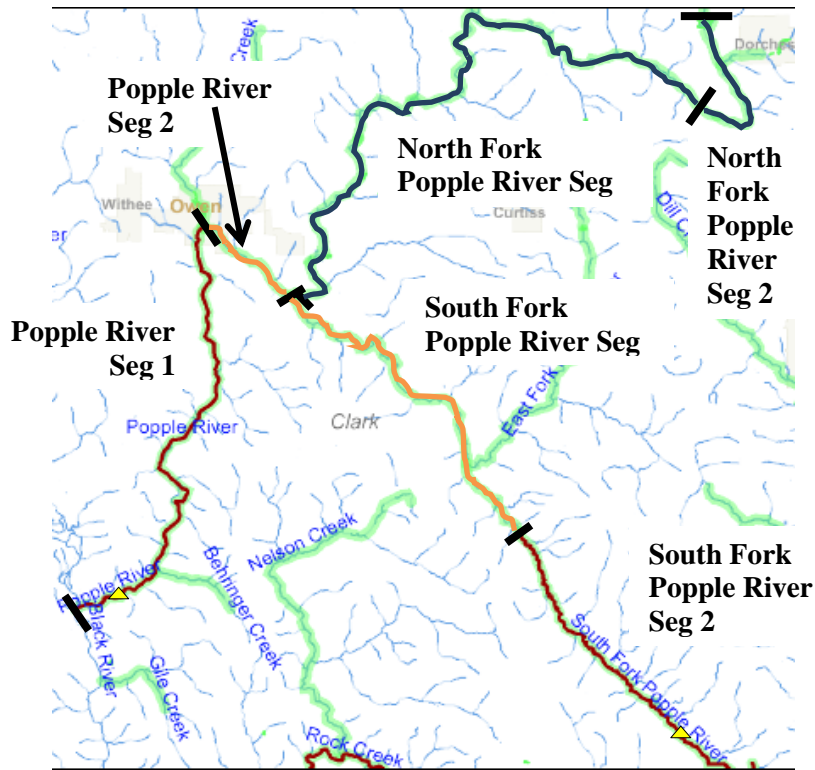


Figure 1: Segments of Popple, South Fork Popple, and North Fork Popple Rivers demarcated by black bars. Maroon highlighted segments indicate proposal of addition to the 303(d) list of impaired waters. Yellow triangles denote the sampling stations from which assessment data was acquired. Orange highlighted segments indicate proposal of addition to the 303(d) list based on evidence of neighboring segments. Blue highlighted segments indicate insufficient data for addition to the 303(d) list.

B. “I think these lakes should be added to the watch list so incipient problems can be caught while they are still manageable. Isn't it likely that nitrogen, rather than phosphorus, is limiting in at least some of these lakes? Have you thought about the nitrogen levels in this way? Have you examined the water quality data to see if some other factor might be limiting?”
(Carol Steinhart, Citizen)

RESPONSE: Lakes assigned to Category 5P exceeded phosphorus criteria but did not exceed chlorophyll thresholds (i.e. no biological response). Although nitrogen levels may be limiting primary production in some of these lakes, nitrogen limitation is not currently evaluated or used to determine whether or not a lake is impaired.

Neither nitrogen criteria nor assessment thresholds for nitrogen have been established for water quality assessments in Wisconsin. The development of nitrogen criteria have been previously identified as a high priority by several of WDNR's external partners, as well as EPA. At this time, however, WDNR does not believe sufficient scientific understanding or data are available to derive a water quality standard for nitrogen. As resources allow, WDNR will review existing data, as well as collect and analyze new data, to help improve our scientific understanding of this nutrient in Wisconsin waters.

Specific Waterbodies

4) MUSKY BAY, LAC COURTE OREILLES AND SISSABAGAMA LAKE – (WBIC 2390800, 2393500) The WDNR received 74 letters and emails supporting the listing of Musky Bay of Lac Courte Oreilles and Sissabagama Lake. The majority, 70, addressed both waterbodies while 4 addressed just Musky Bay. A number of the letters included the following language: “[We] strongly support the Wisconsin Department of Natural Resources’ proposal to list both Musky Bay in Lac Courte Oreilles and Sissabagama Lake on the Wisconsin 2012 list of Impaired Waters. Our family has a long history on LCO and has seen, first hand, the steady deterioration of water quality in Musky Bay as evidenced by terrible algae and weed growth and diminished water clarity. The same poor water quality exists in our sister water shed lake, Sissabagama. Because we share common water flow, we believe it is imperative that both bodies of water be listed as impaired in order to address this problem and return them to waters we can all enjoy, again.”
(Commenters 1-74 listed in Index of Commenters)

RESPONSE: Your comments in support of these proposed listings have been noted and were considered in WDNR’s decision to maintain the inclusion of these waters on the Impaired Waters List.

5) MUSKY BAY, LAC COURTE OREILLES – (WBIC 2390800) “The water quality monitoring data does not support 303d listing of Musky Bay as impaired, according to the WisCALM guidance. Only one of the past five years has exceedances of the 40 µg/L Shallow Lowland Drainage Lake TP Threshold, which is less than the two occurrences specified in the guidance. Further, the data available in the last 10 years shows only 3 in 10 years exceeding the threshold, which does not constitute a ‘majority of the data.’”
(Timm P. Speerschneider of DeWitt Ross & Stevens S.C. on behalf of the Wisconsin State Cranberry Growers Association)

RESPONSE: The “majority of years rule” is assessment guidance provided in the 2012 version of WisCALM and was applied during the standard, automated assessment of lake phosphorus data from a five year period (2006-2010). However, the 2012 WisCALM also states that a ten year window may be assessed, where appropriate. The “majority of years rule¹” is not always appropriate for use in assessing waters with long-term, historical data records. For the assessment of Musky Bay in the 2012 listing cycle, the standard five year assessment period was expanded to ten years based on professional judgment that data from the 10-year period is representative of current conditions. The decision to list the bay as impaired was based on all available information, representative data and best professional judgment. Three of the ten average annual phosphorus concentrations exceeded the listing threshold applicable to Musky Bay (shallow lowland lake threshold). Lacking impairment thresholds in the 2012 WisCALM guidance for aquatic macrophyte data, WDNR staff used professional judgment in assessing the observed macrophyte density in Musky Bay and based on this assessment, in conjunction with the phosphorus data assessment, have determined the recreational use of the bay is impaired.

6) SISSABAGAMA LAKE – (WBIC 2393500) “The listing decision is not justified based upon the March 2011 WDNR study, which identified high natural background phosphorus concentration. Additionally, it should not be listed given that the data taken in June, July and August are not a representative average of total phosphorus for a stratified lake.” **(Timm P. Speerschneider of DeWitt Ross & Stevens S.C. on behalf of the Wisconsin State Cranberry Growers Association)**

¹ The 2014 version of WisCALM includes a revised method for assessing phosphorus sample data where data are no longer summarized by year, precluding the use of the “majority of years rule.” Instead, a statistical confidence interval approach will be used in assessing attainment with the phosphorus criteria in the 2014 listing cycle.

RESPONSE: Currently, no alternate phosphorus sampling methodology for stratified lakes is outlined in the department's assessment methodology, WisCALM. WisCALM outlines the representative season for assessment of lakes against the applicable phosphorus thresholds. Sissabagama Lake was assessed during the 2012 listing cycle and was incorrectly categorized as a 5P water in the previous draft Impaired Waters List. The lake should have been placed in Category 5A, as both phosphorus and chlorophyll sample data exceeded 2012 WisCALM listing thresholds for the recreation use. Chlorophyll-*a* annual averages exceeded numerical criteria two out of three years in the 2006-2010 assessment period.

The March 2011 report does identify high natural background phosphorus concentrations, but neither a Use Attainability Analysis (UAA) nor a site-specific criterion (SSC) have been completed in order to assess Sissabagama Lake separately from the applicable statewide phosphorus criteria. WDNR is in the process of requesting to update our Designated Uses process in Wis. Adm. Code, which would include completion of guidance on conducting a UAA to change a designated use. Also, WDNR is currently developing a procedure for deriving phosphorus site-specific criteria for a specific waterbody. In the interim, Sissabagama Lake will remain in Category 5A, until the applicable use designations or phosphorus criteria are updated or a TMDL is completed. WDNR notes that this waterbody may be a future candidate for a UAA or SSC.

7) SISSABAGAMA LAKE – (WBIC 2393500) Several land owners around Sissabagama use high levels of fertilizers and chemicals on their lawns and it runs directly into the lake when it rains. Please check out some of these offenders and you'll solve the phosphorus problem. **(Hazel Worre, Citizen)**

RESPONSE: Your observations have been noted.

8) RING LAKE – (WBIC 2396300) Just off the west edge of Lac Courte Oreilles is Ring Lake and it too is suffering from high densities of weeds, lily pads, and algae. A large dairy farm to the west has runoff that runs directly into these lakes. Ring Lake should also be listed on the impaired waters list. **(Eric Wheeler, Citizen Stone Lake, WI)**

RESPONSE: WDNR currently does not have sufficient information to list Ring Lake on the 2012 Impaired Waters List. Volunteers are invited to collect lake water quality data by participating in Wisconsin's Citizen Lake Monitoring Network (CLMN). CLMN volunteers can collect several types of measurements, including water clarity using the Secchi Disk method, water chemistry samples, temperature and dissolved oxygen data, as well as identify and map plants, watch for the first appearance of Eurasian Water Milfoil near boat landings, or alert officials about zebra mussel invasions. Volunteer-collected data, along with data collected by WDNR and other agencies and citizen groups, are used in assessing attainment of water quality standards and in developing Wisconsin's Impaired Waters List. More information about the CLMN can be found on WDNR's website at <http://dnr.wi.gov/lakes/clmn/>.


9) LAKE MENDOTA – (WBIC 805400) “Based on WDNR TP data for Lake Mendota, sufficient TP data are available and show that the lake exceeds impairment thresholds for recreational and fish and aquatic life uses for phosphorus. These impairments in Lake Mendota need to be identified on the final 2012 303(d) list... If, as a result of the Yahara CLEAN project, or other activities, total phosphorus data appears to meet water quality in subsequent listing cycles, and the supporting data for the delisting decision also meet minimum data requirements as described in WisCALM, WDNR may propose to delist the lake for total phosphorus impairments.” **(U.S. EPA)**

RESPONSE: Lake Mendota will be placed in Category 4A, impaired with an EPA-approved TMDL. While not listed explicitly in the EPA-approved Rock River Basin TMDL, the phosphorus load allocations in this TMDL for the Yahara River (the inlet to Lake Mendota) were developed to meet

water quality standards for Lake Mendota. WDNR will provide documentation of the allocation analysis and justification for the reporting category change with the revised draft 2012 Impaired Waters List submittal to EPA.

10) UPPER POST LAKE – (WBIC 399200) “It was a great surprise to read the Antigo Daily Journal on Friday the 4th of May that Upper Post Lake has a significant phosphorus level. We have had many algal blooms in recent years but have always been told it was not a problem and not to worry about it. Our Water Quality volunteers are very upset. They had never been told that there was a problem; they collect the water but do not do the testing. I think it was unfair to put an article in the newspaper without notification of any of the Lake District commissioners.” Concerned citizens would like to know more details on the problems of Upper Post Lake. (**Suzie Rabideau, Post Lakes Protection and Rehabilitation District**)

RESPONSE: Attainment of the recently adopted phosphorus criteria were assessed for the first time in the 2012 assessment cycle, and the draft 2012 impaired waters list is a product of those assessment results. Upper Post Lake is proposed to be added to the impaired waters list under the category 5P, because available data indicates that the applicable phosphorus criterion is exceeded, but biological impairment has not been demonstrated. The biological impairment measure for lakes is chlorophyll-*a*, a measure of algal abundance. Sufficient chlorophyll data from Upper Post Lake were available to assess and they do not indicate a biological impairment. Waters in Category 5P are a low priority for restoration actions by the WDNR, and may be candidates for the development of site-specific phosphorus criteria.

WDNR offers a communication service called GovDelivery, through which we provide announcements on a variety of subjects to subscribers on our mailing list. Information regarding the Impaired Waters List can be received by subscribing to the “Impaired Waters” topic the list provided on the subscription page. If you would like to subscribe to our GovDelivery service, please go to our homepage (<http://dnr.wi.gov/>) and click on the red envelope icon [] in the lower right-hand corner of the homepage.

11) TURTLE CREEK – (WBIC 790300) Turtle Creek in Rock County, Wisconsin has been an impaired waterway since 1998, but it is not listed as such. All of the supporting documentation was sent in 2011. (**Margaret Pulera, Citizen Darien, WI**)

RESPONSE: Turtle Creek, miles 24.8-35.6 (the Rock/Walworth county line to Comus Lake in Delavan) has been on the impaired waters list since 1998 for phosphorus. The segment in Rock County, miles 1-24.8 (state line to Rock/Walworth county line) is not impaired due to phosphorus based on current assessment methodology, phosphorus criteria, and available data. Evaluation of this segment of Turtle Creek was based on the current assessment cycle (2001-2010) and included the USGS data referred to in the commenter’s previous correspondence. Total phosphorus levels and Macroinvertebrate Indices of Biological Integrity (M-IBI) values, data used for biological confirmation of impairment, indicate that this segment is currently meeting its designated uses.

12) TROUT CREEK – (WBIC 410200) Trout Creek is listed as impaired, but is within the Oneida reservation boundaries. EPA R5’s decision on impaired waters does not extend to waters in tribal lands so it should be removed from the list. (**Marcy Kamerath, U.S. EPA Region 5**)

RESPONSE: Based on EPA’s comment, WDNR has removed the portion of Trout Creek that is within the Oneida reservation boundaries from the Impaired Waters List.

13) LA CROSSE RIVER, RED CEDAR RIVER, LEMONWEIR RIVER – (WBIC 1650200, 2063500, 1301700) A listing decision should not be made based upon one year of data (2003) that are nearly 10

years old. (Timm P. Speerschneider of DeWitt Ross & Stevens S.C. on behalf of the Wisconsin State Cranberry Growers Association)

RESPONSE: WDNR uses all readily available and representative data when making assessment and impairment decisions. Regional biologists reviewed the available data for these waterbodies and did not identify anomalies with the datasets. For stream assessments, WisCALM guidance states that all available data over the last 10-year period (calendar years 2001-2010 for the 2012 assessment cycle) is reviewed. Portions of the rivers mentioned by the commenter met the minimum data requirements for assessment of total phosphorus data against the applicable criteria, and indicated impairment. The assessment of the Lemonweir River includes data from 2003 and more recent data from 2010; the 2010 samples exceeded applicable phosphorus criteria.

Great Lakes

14) COMMENT: BEACH LISTINGS – Narrative water quality standards should be applied when assessing recreational use support due to excessive algae on Great Lakes beaches. “We are disappointed that WDNR continues to ignore violations of Wisconsin’s narrative standards for algae and debris. See NR102.04 (part 1 (a)-(d).” “We respectfully request that WDNR develop and implement a listing protocol for algae impairments at Great Lakes beaches for the 2012 impaired waters list.” “The Alliance recommends that the assessment methodology utilize Beach Sanitary Survey and Adopt-a-Beach™ data as either a primary or supplemental source to assess the aesthetic quality of Great Lakes beaches.” (Alliance for the Great Lakes)

RESPONSE: Due to staff and resource limitations, no further changes to assessment protocols for the 2012 assessment cycle were made. WDNR conducted a survey of Lake Michigan *Cladophora* populations from 2004-2007 to assess densities and the relation to water chemistry along the shoreline. The relationship between the high density of *Cladophora* density and elevated phosphorus levels is, in part, addressed by the newly adopted statewide phosphorous criteria. Implementation of these criteria should result in reduced nutrient loading to Lake Michigan and Superior. WDNR also plans to incorporate aquatic macrophyte metrics in impairment assessments of inland waters, and some of this assessment methodology may be applied to Great Lake beaches in the future. Because Lakes Michigan and Superior are large, intra-jurisdictional waters, impairment assessment protocols for excessive algae on Great Lake beaches should be a collaborative effort with other state waters quality agencies, as well as the USEPA.

15) COMMENT: LAKE MICHIGAN NEARSHORE WATERS – “WDNR must evaluate and list all near shore zones in Lake Michigan that have excessive phosphorus levels...It is improper for WDNR to ignore any available data showing excess phosphorus in these nearshore waters. WDNR can develop and implement a protocol for evaluating this data and apply it to the 2012 list just as WDNR has done for the 5P category. We respectfully urge WDNR to reconsider this decision and list impaired nearshore areas where the available data show violation of Wisconsin’s numeric water quality criteria for total phosphorus (7 ug/L in Lake Michigan and 5 ug/L in Lake Superior). NR102.06, part 5(a),(b).” (Alliance for the Great Lakes)

RESPONSE: The protocol for the Category 5P was developed from slight modifications to previously established lake and river phosphorus assessments protocols. WDNR does not have an established assessment protocol for assessment of Great Lake nearshore waters or a clear means to delineate an area of impact. Without these two elements readily available, nearshore phosphorus data cannot be assessed for the 2012 listing cycle.

Regulation

16) COMMENT: CRANBERRY REGULATION – “How many of the stream miles on your impaired waters list have cranberry marshes operating on them? Has your department ever tested the nutrient levels, and temperature levels, in the water downstream from these marshes, especially when they're draining the water off their beds and dumping it into our local trout streams? If not, why not? Thank you for any effort you're making to protect our rapidly deteriorating trout streams.” **(R.E. Ciriacks, Citizen Black River Falls, WI)**

RESPONSE: The department does not track the number or stream miles of impaired waters that are connected to cranberry operations. Impairment decisions are made based on assessments of water quality standards attainment using readily available water quality data from the department and the public. Listing decisions are not made, however, based on the source(s) of pollution. Total Maximum Daily Load (TMDL) evaluations are developed for listed waters and quantify potential pollutant sources.

17) COMMENT: PHOSPHORUS REGULATION – “I strongly support the regulation and monitoring of phosphorous and other chemicals including animal waste discharge into Wisconsin rivers and streams. As an Environmental Educator I have noticed the degradation of many rivers in the Madison area and throughout Wisconsin. I am aware there have been many violations of phosphorous levels in water being discharged into rivers and streams and that people and industries responsible for the violations have not been fined or changed their discharges to comply with current State regulations. I would like to see even stronger regulations and real consequences for discharges not complying with safe levels in our rivers and streams.” **(Ami Rupnow, Citizen)**

RESPONSE: Your support and your concerns regarding phosphorus regulations and enforcement have been noted.