



March 5, 2014

VIA EMAIL to DNRImpairedWaters@wisconsin.gov

Aaron Larson
Water Evaluation Section (WY/3)
P O Box 7921
Madison WI 53707

RE: 2014 Impaired Waters List Comments

Dear Mr. Larson:

With 95 percent of America's fresh surface water, the Great Lakes are a national and international treasure, providing drinking water, jobs and recreation to tens of millions of people. As an organization dedicated to protecting the health of the Great Lakes, The Alliance for the Great Lakes (Alliance) has an interest in any pollutants entering into and degrading the Great Lakes' health.

With the enclosed comments, the Alliance urges the Wisconsin Department of Natural Resources to ensure that Lake Michigan, Lake Superior and their surrounding communities are protected against phosphorus pollution and resulting nuisance algae, as well as debris that dirties the lakes' shoreline.

This can be accomplished by addressing the following issues in the draft 2014 Impaired Waters List:

- **Listing Great Lakes beaches and nearshore waters as impaired due to excessive phosphorus and algal levels**
- **Establishing a concrete prioritization system and projected timeline for TMDL development**
- **Conducting a more detailed evaluation of floating debris which includes onshore litter**

Our comments are described in greater detail in the attached comment letter. Thank you for the opportunity to comment on the draft 2014 Impaired Waters List. Should you have any questions about the Alliance's comments, please do not hesitate to contact Lyman Welch at 312-445-9739 or lwelch@greatlakes.org.

Sincerely,

Lyman C. Welch
Water Quality Program Director

Ashley M. Hewson
Dale Bryson Water Quality Intern

Protecting the Lake Michigan and Lake Superior Shoreline from Pollutants

Comments to the
Wisconsin Department of Natural Resources
on
Wisconsin's Draft 2014 Impaired Waters List

March 5, 2014

Alliance for the Great Lakes
150 N. Michigan Ave., Suite 700
Chicago, IL 60601
(312) 939-0838

These comments are submitted by the Alliance for the Great Lakes (Alliance), a nonprofit organization that has advocated on behalf of the Great Lakes and the people who enjoy them for decades. The Alliance's mission is to conserve and restore the world's largest freshwater resource using policy, education, and local efforts, ensuring a healthy Great Lakes and clean water for generations of people and wildlife.

Background

The Clean Water Act requires states to assess their waters for compliance with the state's water quality standards. Under Section 303(d) of the Act, each state must make a publicly available list of waters that do not meet the standards. This "303(d) list" identifies the portion of the water body that is impaired, the pollutant(s) causing the impairment, and a schedule for the development of Total Maximum Daily Loads (TMDLs) to restore the impaired waters to health. As such, the 303(d) list is an important part of ensuring that states comply with their water quality standards and work towards the Clean Water Act's goal of fishable and swimmable waters. To improve water quality and human health, it is essential that the list accurately reflect the impairment status of the state's waters.

Wisconsin must confront the urgent threats to Lake Michigan and Lake Superior by addressing phosphorus pollution and resulting nuisance algae and debris that dirties the lakes' shoreline. The Alliance urges the Wisconsin Department of Natural Resources (WDNR) to ensure that the 2014 impaired waters list goes further to address the following concerns and recommendations:

- **Listing Great Lakes beaches and nearshore waters as impaired due to excessive phosphorus and algal levels**
- **Establishing a concrete prioritization system and projected timeline for TMDL development**
- **Conducting a more detailed evaluation of floating debris which includes onshore litter**

The Alliance urges WDNR to modify the draft list accordingly to ensure further protection against phosphorus, nuisance algae and debris in Lake Michigan and Lake Superior. Each of these issues is discussed in more detail below.

1. Listing Great Lakes beaches and nearshore waters as impaired due to excessive phosphorus and algal levels

The Alliance requests that WDNR identify and list Great Lakes beaches and nearshore waters as impaired due to excessive phosphorus and algal levels. Nutrient pollution is a cause of nuisance algal blooms that leads to declines in recreation use and pleasure at Wisconsin's shoreline. Narrative criteria in Wisconsin's Water Quality Standards state that "materials producing color, odor, taste or unsightliness shall not be present in such amounts as to interfere with public rights in waters of the state"¹. These criteria must be addressed in reference to the excessive and foul smelling nuisance algae that congest beaches and clog nearshore waters.

Likewise, while the Alliance is pleased by Wisconsin's adoption of numeric phosphorus water quality standards (7 ug/L for Lake Michigan and 5 ug/L for Lake Superior), these standards must be applied to shoreline waters and impairments identified in order to address excess phosphorus pollution.

¹ NR102.04 (1)(c)

Wisconsin’s 303(d) listing process will not accurately reflect impaired water status until phosphorus and algae pollution of beaches and nearshore waters are addressed.

The Alliance’s Adopt-A-Beach™ volunteers continue to survey Wisconsin’s Lake Michigan beaches and find excessive algae levels along the shore that are not reflected on Wisconsin’s impaired waters list. While the Alliance understands that this data comes from individual visits and may not necessarily indicate excessive algal bloom trends, these data highlight specific areas with algae levels that affect recreational use on the days our volunteers surveyed the shoreline. Furthermore, the presence of algae on beaches suggests elevated phosphorus and algal levels in the water.

Table 1 below lists beaches found by Adopt-A-Beach™ volunteers in 2013 to have high amounts (51% and up) of algae on the beach or nearshore during their visit and Table 2 indicates beaches found to have medium amounts (21% and up) of algae. Milwaukee, for example, is a particular county that has experienced elevated algae levels which should be addressed. 2013 Adopt-a-Beach™ data for Wisconsin’s Lake Michigan beaches is included with these comments for your review.

Table 1. Beaches with high amounts (51% and up) of algae present on the beach and/or in the nearshore area during 2013 visits by Adopt-A-Beach™ volunteers

Beach Name	County	Algae Location (Beach or Near Shore)
Bradford Park Beach	Milwaukee	Beach, Nearshore
Grant Park Beach	Milwaukee	Beach
Sam Meyers Park Beach	Racine	Beach
Schlitz Audubon Center Beach	Milwaukee	Nearshore
Maritime Drive Boat Launch Beach	Manitowoc	Nearshore
McKinley Park Beach	Milwaukee	Beach, Nearshore
Watercraft Beach - (beach is just north of McKinley)	Milwaukee	Nearshore

Table 2. Beaches with medium amounts (21% to 50%) of algae present on the beach and/or in the nearshore area during 2013 visits by Adopt-A-Beach™ volunteers

Beach Name	County	Algal Location (Beach or Near Shore)
Bay View Park Beach	Milwaukee	Nearshore
Big Bay Park Beach	Milwaukee	Beach
Bradford Beach	Milwaukee	Beach
Bradford Park Beach	Milwaukee	Beach, Nearshore
Carre-Hogle Park	Racine	Beach
Grant Park Beach	Milwaukee	Beach, Nearshore

Grant Park Beach	Milwaukee	Beach, Nearshore
McKinley Park Beach	Milwaukee	Beach, Nearshore
Sam Meyers Park Beach	Racine	Nearshore
Schlitz Audubon Center Beach	Milwaukee	Beach, Nearshore
Silver Creek Beach	Manitowoc	Beach, Nearshore
South Beach Canoe and Kayak Launch	Ozaukee	Beach, Nearshore
South Shore Park Beach	Milwaukee	Nearshore
Two Creeks Beach - South	Manitowoc	Nearshore

Over the past few years, WDNR has responded to previous WisCALM and 303(d) listing draft comments² by stating that WDNR is unable to list beaches and nearshore waters for excessive phosphorus and algae levels due to a lack of assessment protocol. The time has now come for WDNR to establish such a protocol in order to properly list these algae-impaired shoreline areas.

The Alliance also supports WDNR’s future consideration of macrophyte metrics for recreational use impairment, as mentioned in Section 4.5 of the 2014 WisCALM report³. The Alliance urges WDNR to develop assessment protocol for such impairment and include excessive nuisance algae in this methodology. The Alliance would like to note as well that WDNR stated they would consider collaboration with other agencies to discuss protocol for Cladophora impairment in their responses to first public notice comments for the 2012 303(d) draft list⁴. Unfortunately, this does not appear to have taken place as there is no mention of Cladophora in the 2014 WisCALM final report. Recreational assessment protocol for beach and nearshore zones must be adopted as excessive phosphorus and resulting nuisance algal blooms continue to detract from the recreational experience of Lake Michigan and Lake Superior beaches and waters.

2. Establishing a concrete prioritization system and projected timeline for TMDL development

The Alliance urges WDNR to set a concrete prioritization system and projected timeline for TMDL development that may be included in 303(d) listing. Currently, WDNR’s WisCALM report explains in Section 8.1⁵ that TMDL prioritization is determined by a ranking of low, medium or high. This prioritization system is not sufficient for TMDL development. Section 8.1 of the 2014 WisCALM report only lists factors (availability of information, likelihood to respond, severity of impairment and public health concerns) that could play into TMDL prioritization and does not expand upon this prioritization. Furthermore, gaps appear to exist in the TMDL prioritization system. For example there are many waterbodies listed in Table 4 that are set to high priority for total phosphorus impairment but do not indicate proper TMDL development. A ranking of “high”, as described in Section 8.1, should indicate that a TMDL is in development. However, not all high priority waterbodies are in TMDL development as

² 2012 Impaired Waters List Summary of Public Comments and WDNR’s Responses (p. 19), WDNR Responses to Comment from 2nd Public Notice of 2012 Impaired Waters List (p. 15), 2014 WisCALM Public Comments and WDNR Responses (p. 12).

³ WDNR, Wisconsin 2014 Consolidated Assessment and Listing Methodology (WisCALM) (September 2013), p. 36.

⁴ 2012 Impaired Waters List Summary of Public Comments and WDNR’s Responses, p. 17 #29.

⁵ *Ibid.* 3, p. 60-61.

their status is simply “303(d) listed”. Statuses must be corrected in order to accurately reflect impairment response, especially considering the threat of phosphorus pollution.

It is also disappointing that the 303(d) list for these highly prioritized bodies does not include projected TMDL development dates, as EPA regulations state that for 303(d) listing “the priority ranking shall specifically include the identification of waters targeted for TMDL development in the next two years”⁶. There is no indication in 2014 WisCALM report, 2014 303(d) List draft or WDNR’s Impaired Water Bodies search tool of projected TMDL development dates for any waterbodies. WDNR should ensure that they are in compliance with EPA requirements and are on track with TMDL development by establishing a prioritization system and timeline for TMDL development.

Table 4. Waterbodies with High Priority Ranking for Total Phosphorus Impairment (TMDL Needed (5A))

County	Local Waterbody Name	Waters ID	WBIC	Date Listed	Status	303(d) List Page Number
Fond du Lac	Tributary (E.BR) to Denuveau Creek	1517827	139100	4/1/2002	TMDL Development	11
Milwaukee	Honey Creek	10021	16300	4/1/2002	303(d) Listed	17
Milwaukee	Indian Creek	10005	19600	4/1/1998	TMDL Development	17
Milwaukee	Indian Creek	10005	19600	4/1/2012	303(d) Listed	17
Milwaukee	Kinnickinnic River	9973	15100	4/1/1998	TMDL Development	17
Milwaukee	Kinnickinnic River	9974	15100	4/1/2012	303(d) Listed	17
Milwaukee	Lincoln Creek	9999	19400	4/1/1998	TMDL Development	18
Milwaukee	Menomonee	426506	16000	4/1/1998	TMDL Development	18
Milwaukee	Milwaukee River	426339	15000	4/1/1998	TMDL Development	18
Milwaukee	South 43rd St Ditch	9981	15900	4/1/2012	303(d) Listed	18
Milwaukee	South Branch Creek	3899370	3000073	4/1/2012	303(d) Listed	18
Milwaukee	Underwood Creek	10026	16700	4/1/2012	303(d) Listed	18
Outagamie	Dutchman Creek	1854741	121600	4/1/1998	TMDL Development	20
Ozaukee, Milwaukee	Little Menomonee	10038	17600	4/1/2012	303(d) Listed	20
Saint Croix	Mallalieu Lake	16400	2607100	4/1/2004	TMDL Development	23

⁶ 40 C.F.R. §130.7(b)(4), online at: <http://www.ecfr.gov/cgi-bin/text-idx?SID=504d739876eebaf645b8c5696b3bfb8d&node=40:23.0.1.1.17.0.16.8&rgn=div8>

Waukesha	Frame Park Creek	424708	771650	4/1/1998	TMDL Development	26
Waukesha, Milwaukee	South Branch of Underwood Creek	10028	16800	4/1/2010	303(d) Listed	27

Wisconsin should follow the example Ohio has set for a well-defined TMDL prioritization system and projected timeline for TMDL development. Ohio not only categorizes and subcategorizes each water body for impairment, but they have a system for designating priority points under each beneficial use for TMDL development as seen in Section J2 of their 2014 Integrated Report draft⁷. Ohio then presents the priority points as a part of their 303(d) List (Section L), as well as projected dates for next field monitoring and TMDL development. Establishing priority points and projected TMDL development dates would both be beneficial to improving the health of Wisconsin’s waters and improve public transparency and accountability. Priority points can help with the tracking of waterbody health over time, and setting projected dates will hold Wisconsin more accountable and ensure that proper TMDL actions are taken in a timely manner. Therefore, the Alliance strongly urges WDNR to adopt such a system for its impaired waters listing.

3. Conducting a more detailed evaluation of floating debris which includes onshore litter

WDNR must provide a more detailed evaluation of floating debris, including onshore litter, in order to improve the health of Lake Michigan and Lake Superior beaches and waters. Nearshore waters and beaches strewn with dirty cigarette butts, plastic bags, bottles, cans, and the like, are not an inviting foreground for the natural beauty of the lakes.

Floating debris in amounts that “interfere with public rights in waters of the state”⁸ violates Wisconsin’s Water Quality Standards, yet the stated assessment methodology for recreational use of lake waters does not include an evaluation of floating debris. To properly assess compliance with Wisconsin’s standards as required by the CWA, WDNR must assess impairment of Great Lakes’ shoreline by floating debris. As the standard requires a determination of whether amounts “interfere with public rights in waters of the state”, WDNR must evaluate debris data using clear criteria for deciding whether the standard has been attained.

For example, WDNR should evaluate data of the volume of floating debris collected in catch basins and in stormwater systems. Data on trash collected from stormwater runoff is readily available from agencies in the area. For example, the Public Works Department of the City of Racine records how many tons of trash is pulled out of inlets, with 1325 tons of trash collected in 2012.⁹ In recent years the least amount of trash collected was 1254 tons in 2010 and the greatest amount collected was 2517 tons in 2009.¹⁰ The Milwaukee Metropolitan Sewerage District as well records garbage collection from their river skimmer.¹¹ Such readily available data should be evaluated to determine whether the Great Lakes are impaired by trash from stormwater runoff.

⁷ Ohio Environmental Protection Agency, 2014 Integrated Report Draft, Section J2 (Prioritizing the Impaired Waters: the 303(d) List), p. J-4 – J6.

⁸ NR 102.04(1) (b)

⁹ Phone conversation with Pete Eggert, City of Racine Public Works Engineering Department, March 2014

¹⁰ Id.

¹¹ Phone conversation with MMSD Water Quality Department, March 2014

In addition, EPA's Beach Sanitary Survey (BSS), used to assess primary and secondary contact use of the Great Lakes' beaches, provides a standardized format and method for the collection of data on beach conditions, including litter/debris. This standardized evaluation tool ensures all beaches are assessed accurately and uniformly. In their evaluation of litter/debris, the BSS measures the amount of litter/debris, both floating and onshore. Onshore litter is vital to this evaluation because much of the litter that is on the beach was either washed up on the shore from the water or can be washed into the water from the shore. An assessment that does not include onshore litter does not fully account for recreational use impairment in the nearshore waters.

Data collection and quality assurance methods used by the Alliance's Adopt-a-Beach™ volunteer survey are modeled on EPA's BSS methodology. In the 2013 beach season, the Alliance's Adopt-a-Beach™ surveys recorded considerable amounts of litter on a number of Wisconsin's Lake Michigan beaches. At beaches surveyed, such as Bay View Park Beach, McKinley Park Beach and South Shore Park Beach, top collected items included food-related items (24326) and cigarettes and filters (18279), which contributed to a grand total of 55,207 items and 4,549.44 pounds of trash collected over the season. 2013 Adopt-a-Beach™ data for Wisconsin's Lake Michigan beaches is included with these comments for your review. Based on this data, Wisconsin should list Lake Michigan shoreline as impaired due to floating debris.

At a minimum, WDNR must go further to assess impairments of the recreational use and aesthetics of Wisconsin's Great Lakes' shoreline by evaluating litter, both floating and onshore. We also urge WDNR to use the EPA's Beach Sanitary Survey as a model for collecting data on which to base the attainment determination.

4. Conclusion

The Alliance for the Great Lakes urges WDNR to improve Wisconsin's 2014 draft Impaired Waters List by addressing our recommendations in order to protect Lake Michigan and Lake Superior against phosphorus, nuisance algae and debris.

Thank you for your time and the opportunity to comment on this draft list.

March 6, 2014

VIA EMAIL TO DNRImpairedwaters@wisconsin.gov

Mr. Aaron Larson
Wisconsin Dept. of Natural Resources
Water Evaluation Section (WT/3)
P.O. Box 7921
Madison, WI 53707-7921

RE: Comments on Draft 2014 303(d) List of Impaired Waters

Dear Mr. Larson:

I am providing the following written comments on behalf of the Wisconsin State Cranberry Growers Association (“WSCGA”) regarding the draft 2014 303(d) list of impaired waters.

WSCGA represents approximately 160 of Wisconsin’s cranberry growers who grow more than 85% of the state’s cranberry crop. Cranberries are Wisconsin’s largest fruit crop and Wisconsin leads the nation in cranberry production. It is estimated by the University of Wisconsin-Madison that our state cranberry industry provides more than 5,000 jobs for Wisconsin residents and has a \$350 million impact on the state’s economy.

WSCGA renews the concerns and comments that were expressed during the 2012 listing process; namely, its comments dated May 18, 2012. WSCGA continues to believe that (1) more data should be gathered; (2) the data should be subject to more critical analysis; and (3) biological corroboration of alleged numeric impairment should be required.

WSCGA continues to be concerned that listing decisions can be based solely upon exceedances of numeric criteria; particularly given the difficulty of obtaining reliable data and the complexity of relating the data to impairment. In that regard, WSCGA would note that of the 192 newly listed water bodies, 137 were based solely on phosphorus data.

WSCGA is encouraged by the recent Scope Statement (DNR #WY-23-13) wherein the Department indicated that rulemaking regarding the above issues would be undertaken. WSCGA believes that until the rulemaking is complete, water bodies exhibiting exceedances of the phosphorus criteria should be placed in Category 3. As the Department is aware, Category 3 is a holding category:

Mr. Aaron Larson
Wisconsin Dept. of Natural Resources
March 6, 2014
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Category 3	There is insufficient available data and/or information to assess whether a specific designated use is being met or if the anti-degradation policy is supported. This category is also used for situations where the state has not yet had time or resources to analyze available data.
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Placement in Category 3 is appropriate given the nature and complexity of the data.

If you have any questions regarding these comments, please contact me directly at 608-252-9319 or tps@dewittross.com

Very truly yours,

DeWitt Ross & Stevens s.c.



Timm P. Speerschneider

TPS:dvz

From: Ted Peters <glea@genevaonline.com>
Sent: Thursday, February 13, 2014 9:21 AM
To: DNR Impaired Waters
Cc: tessadams@charter.net; 'Livingston, James'; rscholze@btownlaw.com; dj.bowman@sbcglobal.net; leiththomas@yahoo.com
Subject: 2014 impaired water list
Attachments: HR ecoli data 2008 - 2013.xlsx

Hello:

My name is Ted Peters, I am the director of the Geneva Lake Environmental Agency, an inter-municipal lake management agency responsible for managing Geneva Lake. I also am the president of the Linn Sanitary District which is located on both the north and south shores of Geneva Lake. As director of the GLEA I have been involved in the monitoring of Geneva Lake's water quality for over 39 years. For most of those 39 years, a major component of our water quality monitoring has been the bacterial monitoring of Geneva Lake's five municipal beaches per USEPA and Wisconsin State Lab of Hygiene guidelines. As president of the Linn Sanitary District since 1992, I have been involved in the management and upkeep of the over 1,700 private on-site waste water treatment system (POWTS) that serve our residents.

I recently reviewed your 2014 Proposed Impaired Water's list and viewed today's webinar on the same matter. Hillside Beach, located on Geneva Lake's south shore, has been listed as impaired water since 2008 because of E-coli bacteria issues.

I have a few questions and would like to share with you some of my experiences with bacteria monitoring of Hillside Creek in the hope that you reconsider the listing of Geneva Lake, HR1 Robinson Hillside Beach as impaired.

QUESTIONS:

I am familiar with E-coli criteria for beaches but is there any specific criteria for E-coli or bacteria in surface waters as a whole, be it lake or stream?

I saw that Hillside Creek was listed as Impaired Waters before 2008 but was removed in 2005. Can you share with me that process and why it was relisted in 2008?

What data was used to determine that Hillside Creek Beach, Geneva Lake is impaired?

EXPERIENCES:

Robinson Hillside Beach is located on the west side of the pier located at the end of Hillside Rd, N 42° 33' 29.22", W 88° 27' 45.26". The area you identify on the web page at the surface water data viewer as the Robinson Hillside Beach is almost a mile east of the actual beach location and is along private lakefront property.

On the east side of the pier at the end of Hillside Rd. is a launching ramp and the mouth of a small groundwater discharge creek. As a part of our long-term bacterial monitoring of this beach we have included three sites; in the creek approximately 200 ft. south of the lake (HR1), the creek/lake mixing zone (HR2) and the beach(HR3). This creek flows through what at one time was a wetland but is now filled and has single family homes on rather small lots. These home are served by POWTS. Realizing the potential for groundwater quality issues and believing that the creek represents the groundwater quality in this are we have been monitoring the creek, mixing zone and lake since the 1970's. I have attached a spreadsheet with the results of those test from the last five years. Although the creek (HR1) had many results that exceeded the recommended advisory and closing criteria for E-coli, and the mixing zone (HR2) had numerous results exceeding the recommended advisory criteria and one sample that exceeded the closing criteria, the actual beach had no results that exceed the recommended closing criteria and only one result that exceeded the advisory criteria. We believe that the E-coli bacteria in the creek is in part coming from POWTS that are not functioning

properly. When the water mixes with the creek there is a dilution effect. Water collected at the beach, 40 ft. to the west shows little if any E-coli.

Working with the Walworth County Sanitation Division and the residents of this area, the Linn Sanitary District has aggressively moved to upgrade or replace many of the older POWTS in this area. To date, half of the 30 POWTS in this area that were identified by the District's inspection program as having major issues have been repaired or replaced.

REQUEST:

As director of the Geneva Lake Environmental Agency and President of the Linn Sanitary District, I ask that you reconsider identify the Geneva Lake HR1, Hillside Beach as Impaired Waters. I do not believe that there is enough evidence or data to justify the belief that the beach it is not meeting the bacterial criteria for a public beach and as such ask that it be delisted. If anything should be listed it would appear that Hillside Creek be listed if it is exceeding the surface water criteria for e-coli.

This matter will be discussed at the next meetings of both the Linn Sanitary District and the Geneva Lake Environmental Agency. I will let you know what comes out of those meetings.

If you have any questions please feel free to contact me. I look forward to working with you to clarify this matter. Thank you for your efforts in protecting our waters.

Sincerely,

Ted Peters,
President Linn Sanitary District,
Director Geneva Lake Environmental Agency
350 Constance Blvd.
George Williams College, Aurora University,
P.O. Box 914
Williams Bay, WI 53191
262-245-4532

From: Larry Bresina <labbresina@comcast.net>
Sent: Wednesday, March 05, 2014 1:33 PM
To: DNR Impaired Waters
Cc: Deering Curt; Smith, Alex R - DNR; Warner Greg; Williamson Jeremy
Subject: North Pipe Lake Impairment Proposal
Attachments: N. Pipe Lake Report.doc

This email is a request for clarification of the DNR proposal to list North Pipe Lake as impaired due to excess algae growth. The 2008-12 chlorophyll data when processed according to the WisCALM method indicates this lake falls into the "clearly exceeds" recreation category for nuisance algae blooms. Several points that may influence the proposed listing are summarized below and then followed with more detail to support the points.

1. Planning grant studies and a sediment core analysis in 2004 indicated that North Pipe Lake is naturally a mildly eutrophic lake.
2. The proposed listing states that the pollutant is unknown. Our historical data indicates the lake phosphorus concentration largely determines the algae level as sampled in the top 6-feet of the lake.
3. Much higher chlorophyll concentration than the designated 20 ug/l for a nuisance algae bloom seems necessary in North Pipe Lake to reach a 1-meter Secchi depth. One meter Secchi depth corresponds to the 20 ug/l chlorophyll threshold using the Carlson Trophic State Index relationship.
4. The Lake District has installed a retention basin for one of the incoming streams to reduce the phosphorus load to the lake about 13 percent. A 5A listing would seem to imply that significant further non-point phosphorus reduction practices should be pursued toward achieving the algae threshold percentage days target – something desirable but maybe unattainable practically.

We understand that a statewide standard for classifying lakes as impaired is necessary and should work for most lakes. But we wonder if this impaired listing for North Pipe Lake is commensurate with the professional advice received and data collected since 1999 when monitoring efforts began for this lake. Should the DNR decide to list North Pipe Lake as impaired, we would greatly appreciate recommendations on how our Lake District should proceed to manage the lake beyond our current DNR-approved 5-Year Plan.

Thanks for any clarification that can be provided,
Larry Bresina, Former Pipe and North Pipe Lakes Protection and Rehabilitation District Water Quality Chair
Curt Deering, Current Pipe and North Pipe Lakes Protection and Rehabilitation District Board Chair

Supporting detail that the lake may be naturally in the mildly eutrophic range.

In our Lake District's first planning grant report in 2002, North Pipe was determined to be on the boundary between mesotrophic and eutrophic.

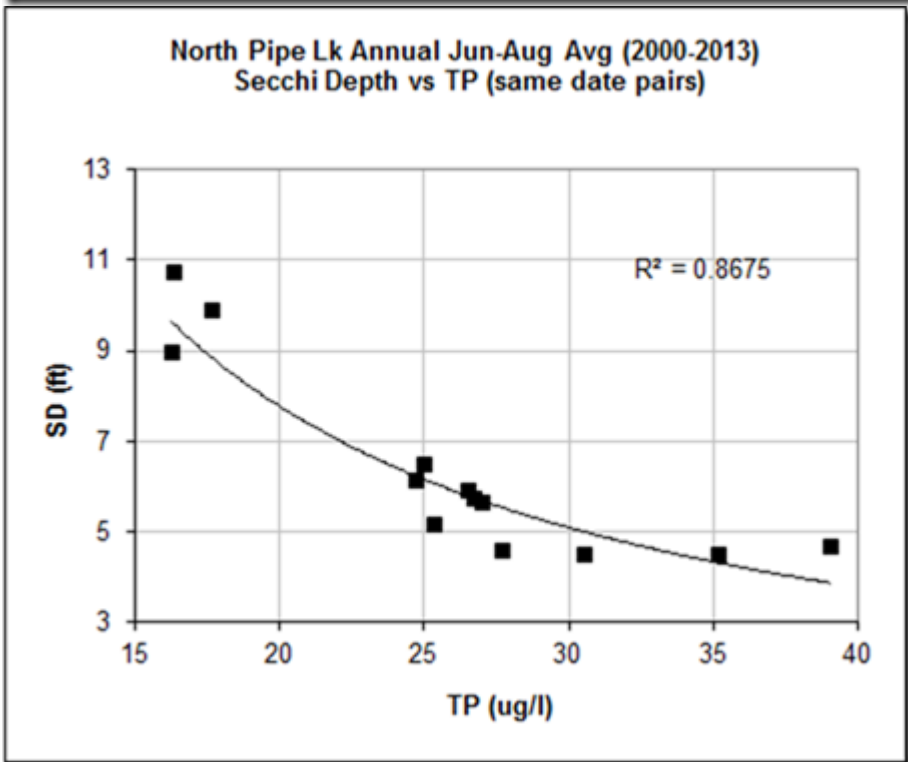
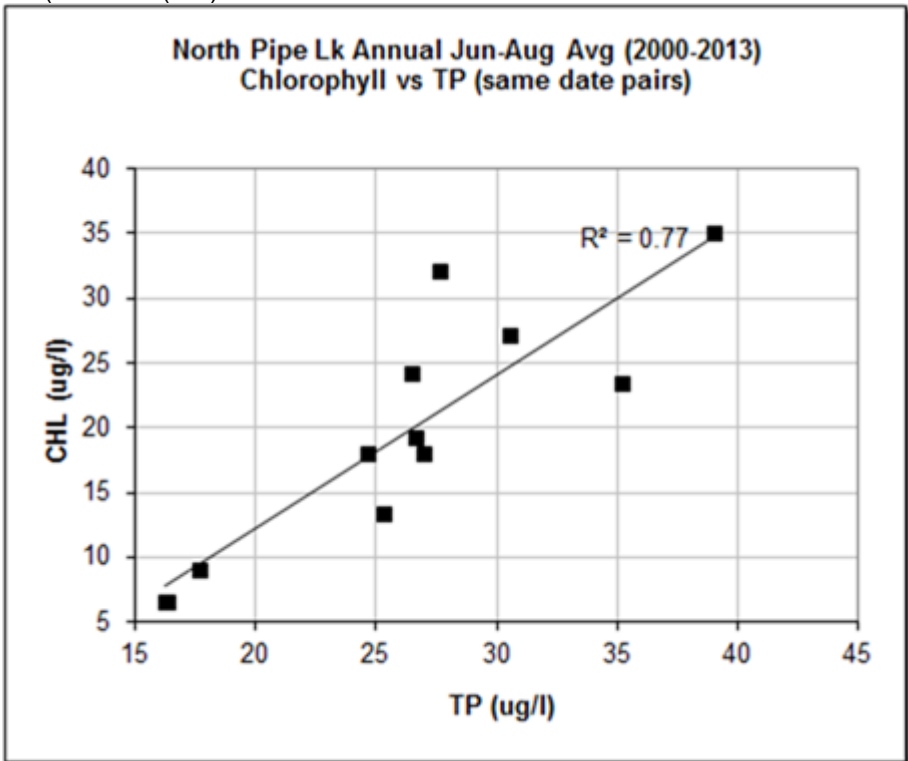
In the second planning grant report in 2004, the summary section has this statement regarding North Pipe Lake: "However, algae blooms are not considered excessive, based on what could be expected for the size of a watershed that drains to North Pipe Lake."

In 2004, Paul Garrison, did a top/bottom sediment core study (report attached). That report and an email exchange with Paul (below) indicated that North Pipe Lake has not changed much in TP in the past 150 years. The lake's May-Sep 2000-2013 average TP is 26.9 ug/l.

"The model generally has an error rate (both historically and at the recent time) of around 3-5 ug/L. As mentioned above, since the model doesn't accurately reflect the present P level it is somewhat suspect. However the diatom community, in general, indicates that present day P levels are not significantly higher than historical ones. I would conclude from the diatom community that historical P levels were around 25-30 ug/L."

Supporting detail that the lake's Jun-Aug phosphorus concentration largely determines the chlorophyll and clarity levels

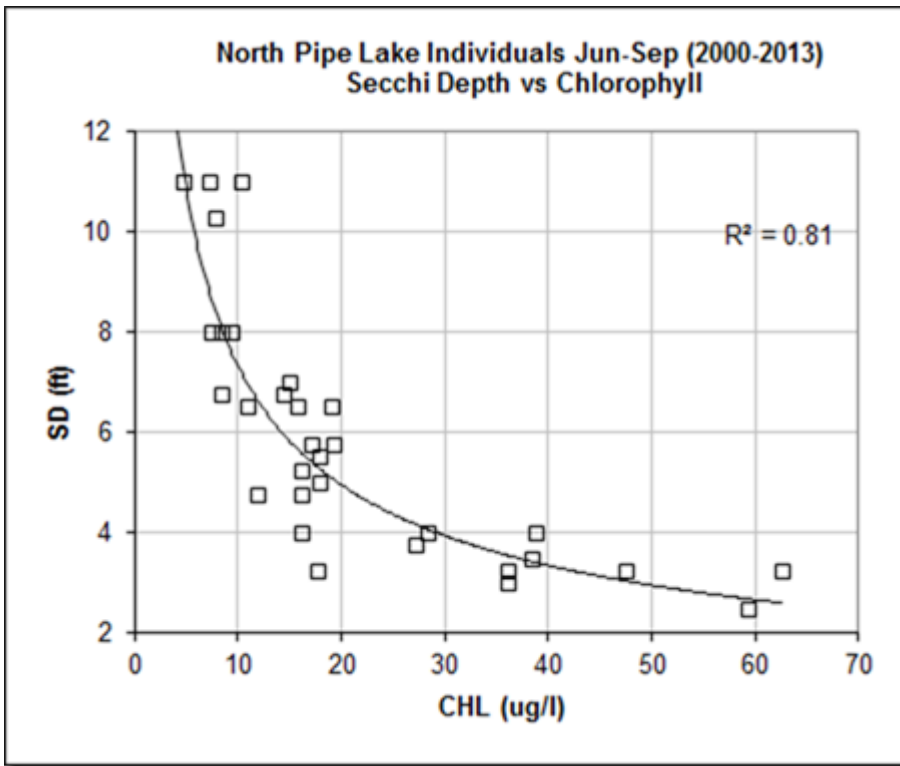
Our analyses to date indicate that North Pipe Lake's TP has a good correlation with Chl, and the TP has a strong correlation with clarity. See charts below. These correlations imply the lake's algae level is largely determined by the TP level. In addition, measurements of the N/P ratio in 2000 and 2007 of 32 and 41 respectively indicate the lake is phosphorus limited. At the historical average for the June-August Secchi depth of about 2 meters, Carlson TSI(TP) = TSI(SD < TSI(Chl).



Supporting detail that nuisance algae blooms occur at higher chlorophyll concentrations than 20 ug/l

The chart below indicates that more than 40 ug/l chlorophyll may typically be needed to produce a nuisance algae bloom as perceived when reaching a 1-meter Secchi depth; Carlson TSI(CHL) > TSI (SD). Resulting explanatory questions:

- Could this mean that the algae particles tend to be larger than normal?
- But then why is Carlson TSI(TP) < TSI(Chl)?
- What is a reasonable hypothesis to explore?



RESULTS OF SEDIMENT CORE TAKEN FROM NORTH PIPE LAKE, POLK COUNTY, WISCONSIN

*Paul Garrison, Wisconsin Department of Natural Resources
June 2005*

Aquatic organisms are good indicators of a lake's water quality because they are in direct contact with the water and are strongly affected by the chemical composition of their surroundings. Most indicator groups grow rapidly and are short lived so the community composition responds rapidly to changing environmental conditions. One of the most useful organisms for paleolimnological analysis are diatoms. These are a type of algae which possess siliceous cell walls, which enables them to be highly resistant to degradation and are usually abundant, diverse, and well-preserved in sediments. They are especially useful, as they are ecologically diverse. Diatom species have unique features as shown in Figure 1, which enable them to be readily identified. Certain taxa are usually found under nutrient poor conditions while others are more common under elevated nutrient levels. Some species float in the open water areas while others grow attached to objects such as aquatic plants or the lake bottom.

By determining changes in the diatom community it is possible to determine water quality changes that have occurred in the lake. The diatom community provides information about changes in nutrient and pH conditions as well as alterations in the aquatic plant (macrophyte) community.

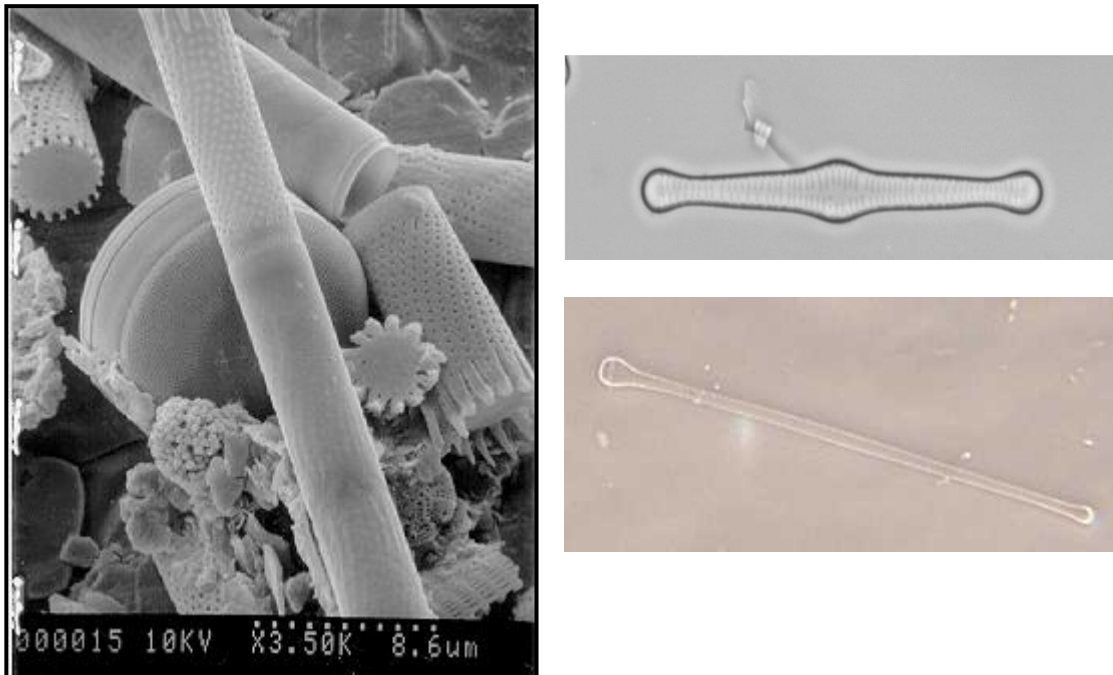


Figure 1. Micrographs of diatoms *Aulacoseira* (left), *Tabellaria flocculosa* (top right) and *Asterionella formosa* (bottom right). All of these diatoms typically are found floating in the open water. *Aulacoseira*, of the type found in N. Pipe Lake, typically is found under lower nutrient levels. *A. formosa* often increases as a result of increased nutrients, especially nitrogen.

I have examined the diatom community from the cores taken on 27 October 2004 near the deep area of North Pipe Lake. I examined sediment from the top of the core and a section deeper in the core (33-36 cm). It is assumed that the upper sample represents present conditions while the deeper sample is indicative of water quality conditions at least 100 years ago. These samples will be analyzed for lead-210 and other radiometric elements, to confirm that these depths represent the time periods assumed.

In order to determine if the top of the core was deposited recently and the bottom sample was deposited at least 130 years ago they were analyzed for the naturally occurring radionuclide lead-210 (^{210}Pb) and radium-226 (^{226}Ra). Lead-210 has a half life of 22.26 years which means it can be detected after deposition for about 130-150 years. Since ^{226}Ra represents background levels, and the ^{210}Pb concentration at the bottom of the core was less than zero (meaning it was undetectable) this sample was deposited at least 130 years ago (Table 1). It is not possible from this data to determine how much older than 130-150 years ago the sample was deposited, but this analysis does confirm that the sample was deposited prior to cottage building and logging. The ^{210}Pb concentration at the top of the core is within levels found at the top of the nine cores from other softwater lakes (range = 5.11-73.78 pCi g⁻¹). This indicates that the top of the core was likely recently deposited.

Table 1. Amount of ^{210}Pb and ^{226}Ra found in the core samples. Units are pCi g⁻¹.

	Lead-210	Radium-226
Top	29.917	0.944
Bottom	0.339	0.779

In North Pipe Lake, historically the major component of the diatom community is those species that float in the open water of the lake. The major genera of these planktonic diatoms is the chain forming diatom *Aulacoseira* spp. (Figure 2). In the top and bottom samples the dominant species was *A. ambigua*. This diatom is common in lakes throughout the Upper Midwest with low to moderate nutrient levels. In the bottom sample, the species of secondary importance of the genera *Aulacoseira* was *A. distans* var. *tenella* but at the top of the core this species had been replaced by *A. subarctica*. *Aulacoseira distans* var. *tenella* is usually found in lakes with relatively low pH and alkalinity values and its decline likely indicates there has been an increase in pH and alkalinity during the last century. This likely was the result of land disturbance in the watershed, which would cause more soil particles to enter the lake. These particles contain chemical elements, e.g. calcium, which would increase the alkalinity and pH of the lake.

There was a significant increase in the diatoms *Asterionella formosa* and *Fragilaria crotonensis* in the top of the core (Figure 2). Both of these taxa are some of the first diatoms to increase as a result of nutrient enrichment following human disturbances. Recent studies have shown that these diatoms respond more to an increase in nitrogen and not necessarily to an increase in phosphorus. It is likely that disturbances in the watershed of North Pipe Lake have caused an increase in the delivery of nitrogen although the delivery of phosphorus has not significantly increased.

Diatom assemblages historically have been used as indicators of nutrient changes in a qualitative way. In recent years, ecologically relevant statistical methods have been developed to infer environmental conditions from diatom assemblages. These methods are based on multivariate ordination and weighted averaging regression and calibration. Ecological preferences of diatom species are determined by relating modern limnological variables to surface sediment diatom assemblages. The species-environment relationships are then used to infer environmental conditions from fossil diatom assemblages found in the sediment core.

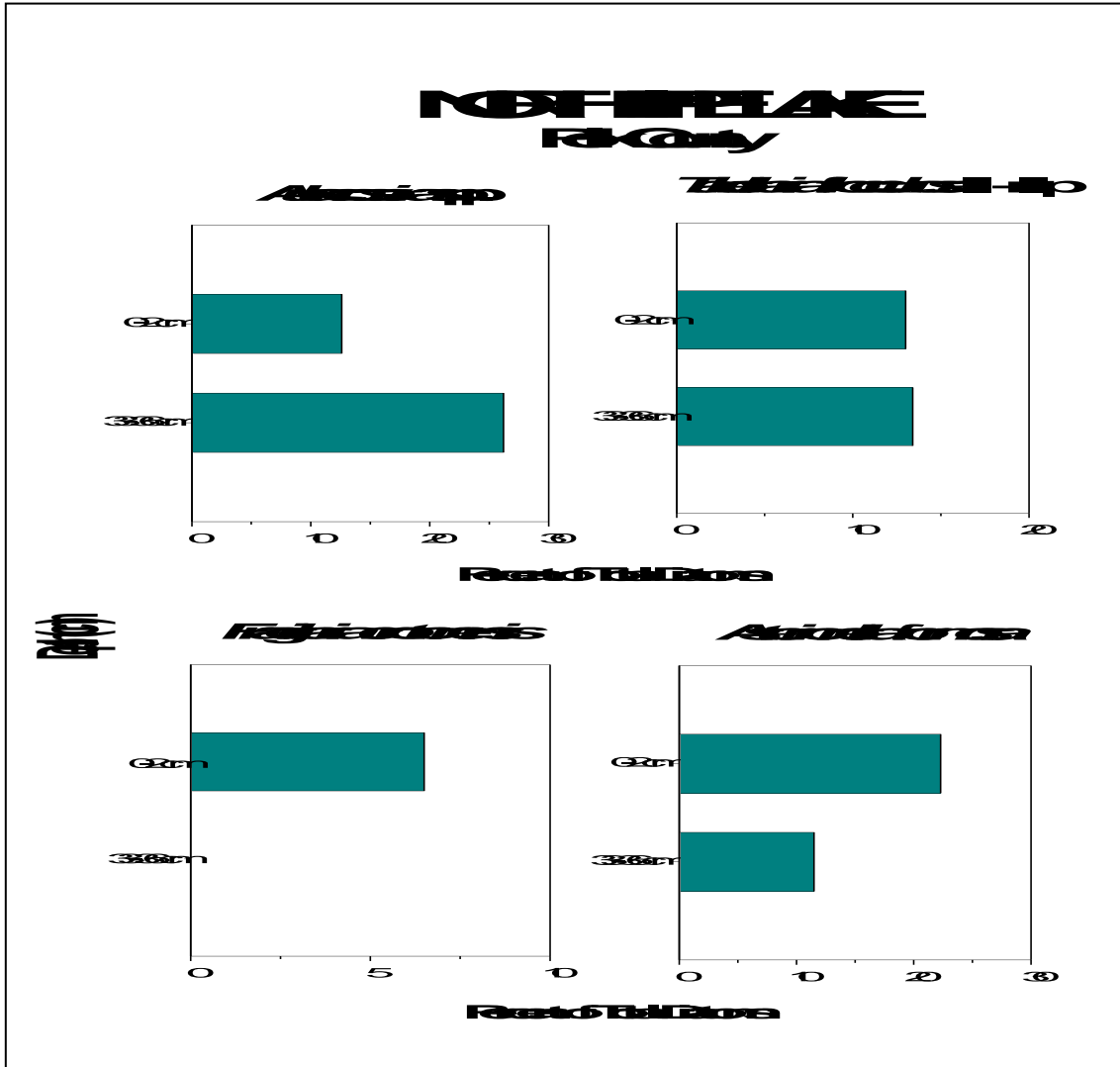


Figure 2. Changes in the abundance of important diatoms found at the top and bottom of the North Pipe Lake sediment core. An increase in *A. formosa* and *F. crotonensis* indicates that nitrogen levels have increased during the last 100 years.

Such models were applied to the diatom community in the core from North Pipe Lake. The models indicated there has not been an increase in phosphorus but there has been a small increase in nitrogen. Both the predicted values of phosphorus and nitrogen were lower than values measured in recent years. This is likely because of the relatively high color of the lake's water. The model was not developed for waters with color values experienced in North Pipe Lake. Nevertheless, it appears that phosphorus values have not increased in the lake while nitrogen values have increased a small but significant amount.

Many other sediment core studies in Wisconsin have found a significant increase in aquatic plants as a result of shoreline development. This does not appear to be the case in North Pipe Lake. The diatom community indicates that increases in the plant community are small or localized and not on the scale of other northern Wisconsin lakes.

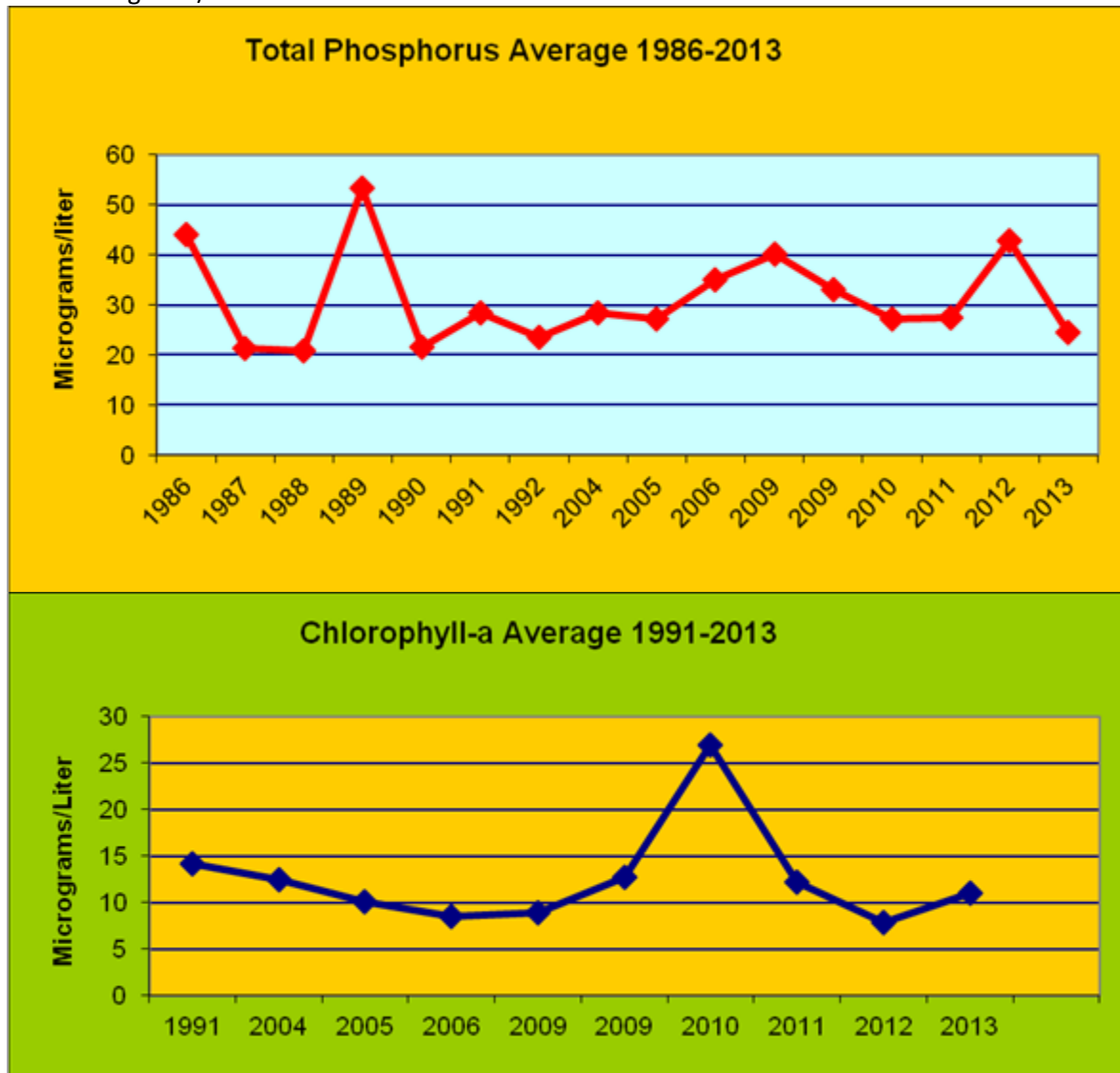
In summary, the diatom community indicates historical nutrient levels in North Pipe Lake are similar to phosphorus levels in the lake at the present time. There has been a small but

significant increase in the nitrogen levels. There does not appear to be an increase in the amount of macrophytes (aquatic plants) during the last century.

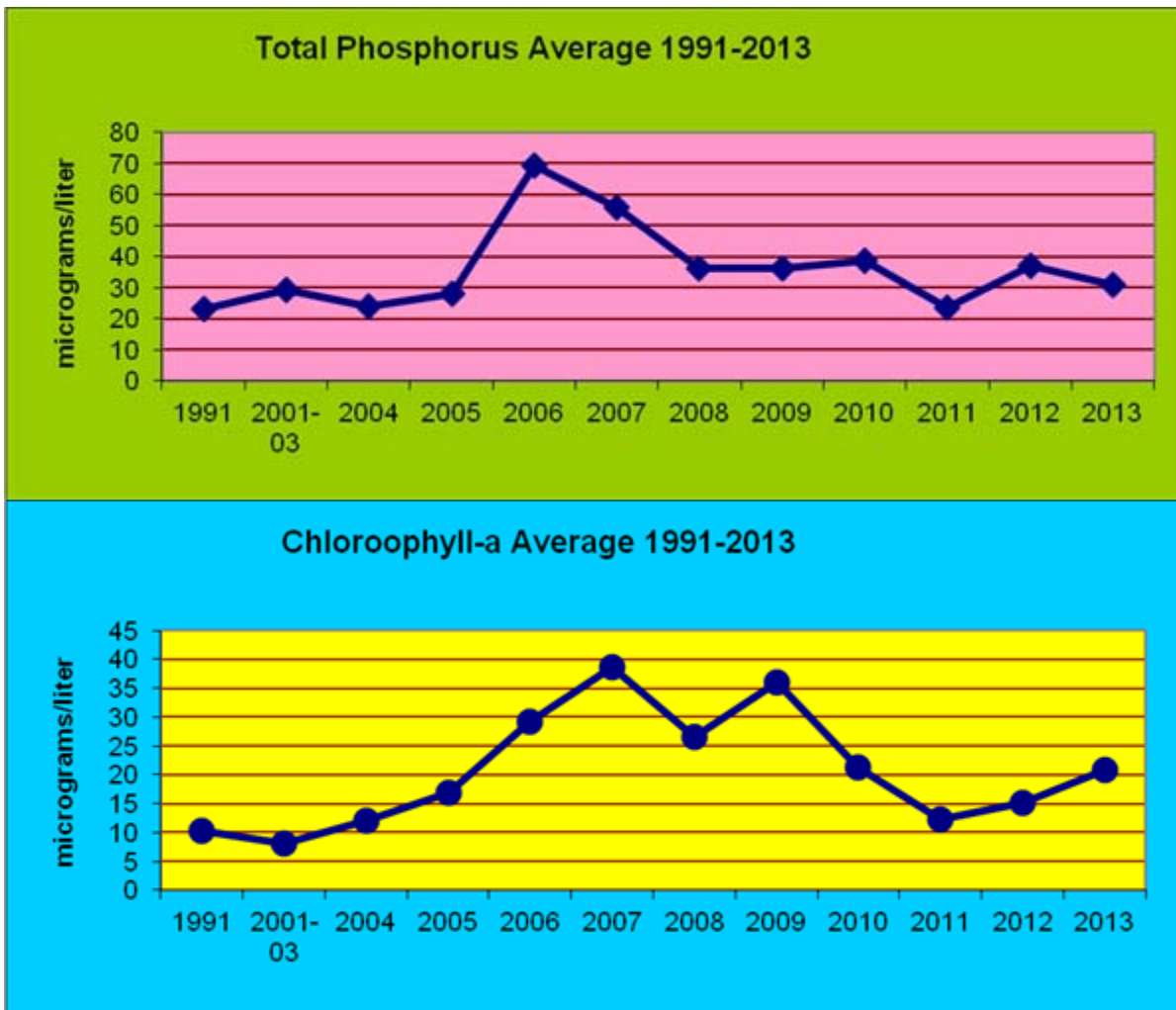
From: Reesa Evans <revans@co.adams.wi.us>
Sent: Monday, February 17, 2014 9:44 AM
To: DNR Impaired Waters
Cc: Tri-Lakes Mgmt District
Subject: Arrowhead and Sherwood Lakes

I am writing to comment on the proposal to list Arrowhead and Sherwood Lakes on the 303(d) impaired waters list. I have been working with these lakes and the Tri-lakes Management District for over 10 years. In the past several years, water quality sampling has been occurring at 3 places on Arrowhead Lake and 4 places on Sherwood Lake. This includes Secchi disk readings, total phosphorus sampling, and chlorophyll-a sampling. I am not sure that these lakes are appropriate for the 303(d) list.

It is correct that there have been algal blooms the past couple of years, but those coincided with very hot, still, rainless weather, when I would expect algal blooms to occur. Water quality information is available for about the last 20 years. The overall total phosphorus average for Arrowhead is 31.2 micrograms/liter. The overall chlorophyll-a level is 12.5 micrograms/liter.



Similarly, the overall phosphorus average for Sherwood is 36.1 micrograms/liter, with the overall chlorophyll-a level 20.6 micrograms/liter.



For man-made impoundments, these averages are within the phosphorus index (which I believe is 40 micrograms/liter phosphorus). This is why I raise the questions about them being listed as 'impaired.'

Reesa Evans, Lake Specialist

Certified Lake Manager

Adams County Land & Water Conservation Department

P.O. Box 287

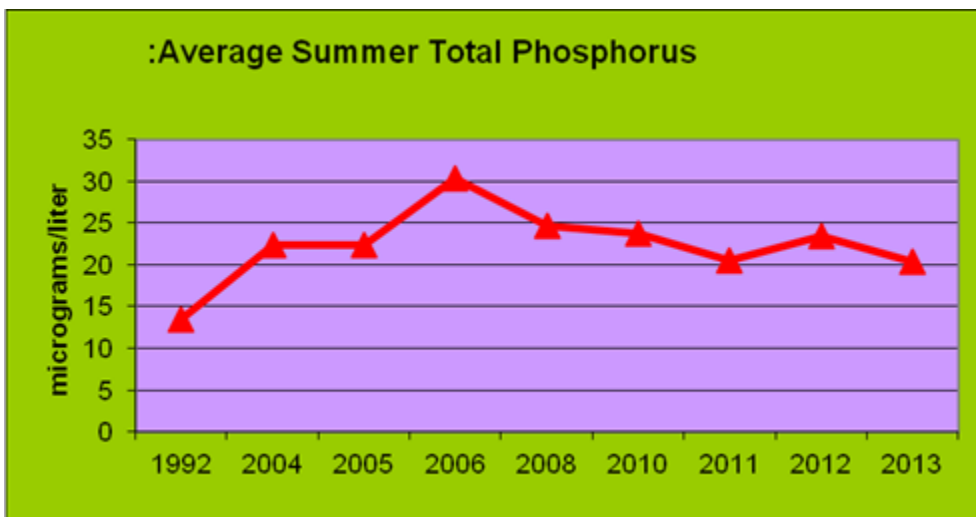
Friendship, WI 53934

608-339-4275

From: Reesa Evans <revans@co.adams.wi.us>
Sent: Tuesday, February 11, 2014 4:21 PM
To: DNR Impaired Waters
Cc: Nick Homan; onie@maqs.net; Sorge, Patrick W - DNR
Subject: proposed 303(d) listing for Goose Lake in Adams County

I am writing to comment on the proposed listing of Goose Lake in the Town of Jackson, Adams County, to the 303(d) Impaired Waterways list. I think someone has made a mistake. I have been working on that lake for over 10 years. This lake is actually a special high-quality lake with 1/3 to 1/2 being bog.

The average summer Secchi disk reading over the last 20 years is **8.2 feet** (the lake is only about 15 or 16 feet max). The average growing season chlorophyll-a level is only **4.2 micrograms/liter**. The average summer phosphorus reading from 1992-2013 is **22.4 micrograms/liter**. This is clearly in the middle of the phosphorus index range for natural lakes of 15 to 40 micrograms/liter. So I'm confused when the reason given for the proposed listing is "excess phosphorus". Considering that so much of the lake is bog, so there's natural organic matter to start with, I consider the average phosphorus level pretty good.



This lake has an astounding aquatic plant community, including some species of concern and several high quality aquatic and bog plants. The last aquatic plant survey done there (2011) revealed 93 aquatic plant species, plus freshwater sponge and aquatic moss. The Simpson's Index of Diversity was **.96** (out of 1.00). The Floristic Quality Index was **53.148** (state average is 16.9-27.5).

I do not feel that this lake is appropriate for listing on the 303(d) list.

Reesa Evans, Lake Specialist
Certified Lake Manager
Adams County Land & Water Conservation Department
P.O. Box 287
Friendship, WI 53934
608-339-4275

From: Mark Schuelke [<mailto:schuelke@centurytel.net>]
Sent: Monday, February 10, 2014 5:29 PM
To: Larson, Aaron M - DNR
Subject: Turtle Lakes Chain

Hi Aaron

I talked to you this morning regarding the 3 lakes in our chain (N. Turtle, S. Turtle and Rock) having been included in a Impaired Waters report submitted to EPA. Apparently, all 3 of our lakes are on the list due to elevated levels of mercury...above what is normally found in other lakes throughout the state. I just reviewed the "Choose Wisely 2013...A Health Guide for Eating Fish in Wisconsin". In the section entitled "Exceptions Due to Mercury", none of our 3 lakes are listed as having elevated risk for the consumption of fish. So...if our lakes are listed as being impaired for mercury, why isn't that reflected in the consumption guidance? Thanks in advance for your response.

Mark Schuelke
President, Turtle Lakes Chain Association

From: Mark Schuelke [<mailto:schuelke@centurytel.net>]
Sent: Tuesday, February 11, 2014 7:36 PM
To: Larson, Aaron M - DNR
Cc: Schrank, Candy S - DNR; Weigel, Brian M - DNR; Beranek, Ashley - DNR
Subject: RE: Turtle Lakes Chain

Aaron

Thanks for the timely response. I do have a couple of additional questions/observations/comments...

- Why are our lakes included in the mercury exception category in the 2000 consumption advisory and not in the 2013 consumption advisory?
- If our lakes are not listed in the most recent consumption advisory, how can they be declared impaired waters (for mercury)?
- What consumption advisory should I be relaying to our lake association membership...2000 or 2013?
- When are our lakes going to be re-sampled (the most recent sampling on N. Turtle was 1989; Rock 1991; S. Turtle 1999)? Hopefully this will be given a priority as the data that is being assessed is quite old.
- Do all fish average equally (regardless of size) when determining average mercury concentration?
- You state that S. Turtle is classified as a Two-story Fishery Lake. From what I read, these type of lakes are generally at least 50 feet deep *and* support a cold water fishery. The DNR lakes book indicates a maximum depth of 23 feet, however, I have measured a depth of 28 feet...still much less than 50 feet. In addition, I can attest S. Turtle does not support a cold water fishery. I feel a more suitable classification would be a Lowland Drainage Lake. If that is the case, I don't think this classification would support an impaired water status for phosphorus.
- Finally, I would just like to re-emphasize how disappointed I am in finding out our lakes are being reported to EPA as being impaired through a news release in our local paper. This classification could potentially impact local tourism, property values and (definitely) the amount of fish we eat. The Department needs to work more closely with the local unit of government and all affected lake associations *before* submitting news releases. The DNR should be providing what standard(s) are being exceeded along with all supporting data. The Department should

also provide what the implications are at these levels and what steps can be taken to reduce or minimize the impacts. This information should not only be provided to the local affected parties, but, also included on the impaired waters website in an easily obtainable fashion.

Thanks for your time, Aaron. I look forward to hearing from you.

Mark Schuelke
President, Turtle Lakes Chain Association

From: Tom O'Hern <tohern@gmail.com>
Sent: Monday, February 10, 2014 10:11 AM
To: DNR Impaired Waters
Subject: Pipe and North Pipe lakes

Hello, I'm part of the Pipe Lake and North Pipe Lake protection district. I see the two lakes make the revised Phosphorus standard. Wondering when the water samples were taken. The district has installed a retention basin in the north east corner of north Pipe Lake. Wondering if samples were taken before or after the instillation.

Thanks

Tom O'Hern

From: Sharon Feucht <clar.shar@yahoo.com>
Sent: Friday, February 28, 2014 12:06 PM
To: DNR Impaired Waters
Cc: Stremick-Thompson, Laura L - DNR
Subject: DNR -Lake Emily water quality

Lake Emily is a quiet fishing lake in Northwestern Dodge County. Historically, it was a heavily fished by the surrounding communities for decades. A catastrophic large manure run off several years and continued pollution from surrounding agricultural enterprises has resulted in excessive phosphorus with weed and algae overgrowths. At times in the summer thick blankets of green scum cover large portions of Lake Emily. This makes enjoying the lake impossible.

Over the years the Lake Emily Fishing Improvement Club has worked with the DNR especially Laura Stremick-Thompson and Sue Graham to address issues facing the lake. As a volunteer organization, our resources are limited. The possibility of State and Federal resources could save Lake Emily for future generations.

We are supportive of your effort to place Lake Emily on the EPA list of impaired waterways in the State of Wisconsin.

We look forward to working with you in any effort to improve Lake Emily!!

Sharon Feucht
Secretary, Lake Emily Fishing Improvement Club
N11851 Sunset Lane
Randolph WI 53956
262-224-1859

From: Gary Jonas <grjkrj@sbcglobal.net>
Sent: Tuesday, March 04, 2014 9:10 AM
To: DNR Impaired Waters
Cc: Clarence Feucht
Subject: Lake Emily in Dodge County

It is my understanding that Lake Emily may be included in a statewide list of impaired waterways. I strongly urge you to do so. As a 40 year riparian, I have seen first hand the degradation of the lake's water quality from excessive agricultural runoff. A farm field just north of the lake with a minimal buffer drains via a six foot culvert through my property directly into Lake Emily. I have on more than one occasion seen tons of topsoil along with raw manure flowing into the lake. Informing Dodge County land management officials has resulted in some action, but much more needs to happen to restore Lake Emily. Please consider designating Lake Emily an impaired waterway, so that we can begin the process of cleaning up this lake.

Gary Jonas

From: lynnette.kwiatkowski@wi.rr.com
Sent: Sunday, March 02, 2014 3:37 PM
To: DNR Impaired Waters
Subject: DNR-Lake Emily water quality

March 2, 2014

Aaron Larson DNR
Water Evaluation Section (WY/3)
P.O. Box 7921
Madison, WI 53707

We are homeowners on Lake Emily in Northwestern Dodge County. In past years because of heavy manure run offs and agricultural waste, Lake Emily has now turned into a heavily weeded lake. We have thick blankets of green scum and as the summer warms up the algae is a thick blue unhealthy scum.

At this time The Lake Emily Fishing Improvement Club is working to restock perch into the lake but we need more resources to better our lake.

We are supportive of your effort to place Lake Emily on the EPA list of impaired waterways in the state of Wisconsin.

Please help us make Lake Emily a better, cleaner lake again so we may once again enjoy our lake.

Patrick and Lynnette Kwiatkowski
W11377 County Road AW
Randolph, WI 53956
414-217-3701

From: Hans And Diane <lakezcouple@sbcglobal.net>
Sent: Saturday, March 01, 2014 6:23 PM
To: DNR Impaired Waters
Subject: Lake Emily, Dodge County

To whom it may concern,

As owners of shoreline property on Lake Emily, we strongly urge the addition of the lake to the DNR impaired waters list for potential remediation. The lake is surrounded by farmland and suffers from groundwater leaching of phosphorus contaminants that result in excessive algae bloom and unrestrained lake weed growth. The lake is minimally spring fed vs any active creek or river, so there is no meaningful cleansing input of fresh, clean water to offset and push out phosphorous elements that seep into the lake.

Thank you for your consideration of this request.

Diane and Hans Predel, N11841 Sunset Ln, Randolph, WI.

Sent from my iPad

From: Sandy Raffay <rsraffay@charter.net>
Sent: Friday, February 28, 2014 11:13 AM
To: DNR Impaired Waters
Subject: Would you please add Lake Emily to "Clean up water "list

We need your help.
Ron and Sandy Raffay

Sent from my iPad

From: Ron Raffay <rifraf1940@gmail.com>
Sent: Friday, February 28, 2014 11:50 AM
To: DNR Impaired Waters
Subject: Lake Emily Dodge County

Sent from my iPad we would appreciate any help that you could give us .About 10-12 property owners have been spraying our shorelines for the past 9 years at a cost of close to \$30000 dollars. We are mostly on the east side of the lake so all the debris end up on our shoreline. We need weed control on the east shore and especially in the bay where my property is located. The weeds in the bay were so thick before we started spraying that I could not get out with my 5 hp motor. We have large culvert in the bay that takes in water from the farm fields . The valley runs for miles I think that a major problem. It's a great little lake , good fishing spring fed all we need is some help in trying get it back to where it once was. Thank you for taking the time to read this request for help. Ron Raffay

From: Larson, Aaron M - DNR
Sent: Monday, February 17, 2014 4:13 PM
To: DNR Impaired Waters
Subject: FW: Impaired Waters-Dead Pike Lake

From: Pete and Nancy Guzzetta [<mailto:petenancy22@hotmail.com>]
Sent: Monday, February 17, 2014 10:41 AM
To: Larson, Aaron M - DNR
Subject: Impaired Waters-Dead Pike Lake

We are writing to you concerning the impaired water classification for Dead Pike Lake in Vilas County. We feel that iron and its accompanying "iron floc" is the issue on our lake. Research has shown a potential for toxicity to lower organisms in the lake due to the high concentrations of iron being discharged from the Powell Marsh into Dead Pike Lake.

Swimmability is a basic requirement of the Clean Water Act, and the iron floc contamination that is being transported from the Powell Marsh into Dead Pike Lake has prevented all of our lake residents from using the lake for swimming.

Two studies - one by the DNR with USGS and one from a DNR Lake Grant with Barr Engineering have concluded that the man-made ditches in the Powell Marsh have caused the iron floc contaminants to enter Dead Pike Lake. An independent study by Hey and Associates confirmed these conclusions, yet the DNR refuses to acknowledge these reports.

Pete and Nancy Guzzetta
Dead Pike Lake

From: Larson, Aaron M - DNR
Sent: Thursday, February 27, 2014 8:29 AM
To: DNR Impaired Waters
Subject: FW: Dead Pike Lake Vilas Co- Impaired Waters

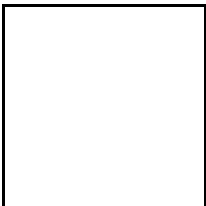
From: Susie Henkel [<mailto:shenkel8@wi.rr.com>]
Sent: Wednesday, February 26, 2014 6:11 AM
To: Larson, Aaron M - DNR
Subject: Dead Pike Lake Vilas Co- Impaired Waters

Mr Larson:

It has recently come to my attention that the above subject lake that my family owns a cottage on has been placed on an "impaired waters" list – The lake association that was formed years ago has been trying to address a water quality issue "Iron Floc" with the DNR for the last 13 – 14 years. What a shame that nothing has been done in that time, although it is not for lack of data addressing the problem. Now we find out there is an additional water issue. I wonder if the Iron Floc issue had been corrected, would there even be a Mercury problem.

The WATER QUALITY is a health problem and certainly curtails how we use our lake. When is the DNR going to step up and address the situation with the Powell Marsh, which has been documented with the many studies and reports that have been done over the last 13 – 14 years. Does Dead Pike Lake have to turn into a cess pool before anything is done. It sure would be nice to know that the DNR has a time frame for addressing these issues in the very near future, so that my children and grand children can enjoy our lake for many years to come. We have owned this property since 1981.

Suzanne E Henkel
Dead Pile Lake Association'
PL428 Powell Rd
Manitowish Waters, 54545



This email is free from viruses and malware because [avast! Antivirus](#) protection is active.

From: Larson, Aaron M - DNR
Sent: Monday, February 24, 2014 8:48 AM
To: DNR Impaired Waters
Subject: FW: Concerns regarding Dead Pike Lake in Vilas County

-----Original Message-----

From: shell [<mailto:scapelle1113@gmail.com>]
Sent: Sunday, February 23, 2014 5:11 PM
To: Larson, Aaron M - DNR
Cc: petenancy22@hotmail.com; pheephee11@yahoo.com; scapelle1113@gmail.com
Subject: Concerns regarding Dead Pike Lake in Vilas County

Dear Mr. Larson,

I have had a cottage on Dead Pike Lake for over 65 years and am very concerned about the current water quality of my favorite lake and place to be. I am one of the oldest land owners on the lake to date and look forward to many more enjoyable times there with my family and friends. Currently we are unable to enjoy the wonderful environment due to the quality and smell of the lake water.

Currently, Dead Pike Lake is on the draft list 2014 of "impaired waters" but only for mercury concerns and with a low priority for action. We also have an iron and iron floc issue that needs to be resolved asap! With the summer months coming I will not go swimming or let any of my family go swimming in the lake due to poor water quality and smell, which is a basic requirement of the Clean Water Act! Research has shown that a potential for toxicity to lower organisms in the lake is due to the high concentration of iron being discharged from Powell March.

The Dead Pike Lake Association has been trying to get help for over 14 YEARS and the issues mentioned above are only getting worse. I implore the DNR and it's affiliates to please take action and help us to conserve the natural beauty of our lake not only for me but for generations to come and enjoy. My family has enjoyed the swimming, fishing and boating on the lake before the mercury and iron floc problem. We look forward to enjoying the great Wisconsin outdoors at Dead Pike Lake soon again.

Please forward this letter to your co-workers in the appropriate departments who may help us take care of the water quality in Dead Pike Lake.

Sincerely,

Phyllis G. Pelkola/Doherty
PL 143-Pelkola Road

From: Linda Moonan <lmoon621@yahoo.com>
Sent: Monday, March 03, 2014 10:12 AM
To: DNR Impaired Waters
Subject: Friendship Lake/Adams County

Attention: Aaron Larson
Water Evaluation Section

The Friendship Lake District has been working closely with the the Lake Specialists in the Adams County Land and Water Department, and the Wisconsin Rapids and Eau Clair WDNR offices since 2012 to address the problems that are of concern with Friendship Lake.

In doing so we, the Friendship lake District in conjunction with the DNR and Land and Water, have completely revised our Lake Management Plan to implement measures that will address the excess algal growth and possible other issues. A complete inventory of the Little Roch A Cri Watershed is being done this year, 2014, to determine PS/NPS affecting the total phosphorus for Friendship Lake. Since we have been actively involved to determine the best possible methods available to us in managing our impound lake, it is my belief that this Impaired determination for Friendship Lake is premature. It is my hope that the work we have done, and are doing will be taken into consideration and that this determination will be delayed.

Sincerely,
Linda Moonan
Friendship Lake District
Lake Advisory Group

From: Chris Swaziek [mailto:swaz10@frontier.com]

Sent: Thursday, March 06, 2014 10:36 PM

To: Larson, Aaron M - DNR

Subject: Proposed 2014 Impaired Waters List -- Addition of Friendship Lake

Hi Aaron,

My name is Larry Swaziek and I recently purchased property on Friendship Lake. I have also recently been elected as Secretary of the Friendship Lake District. As a property owner and commissioner for the Lake District I am concerned that the proposed addition of Friendship Lake to the 2014 Impaired Water List will affect the value of my property. I know that your agency promotes the idea that this addition to the list is good because we will be able to get grant money to fix a "problem".

With that I do have a couple of questions regarding the proposed addition of Friendship Lake to the list:

1. The impairment Indicator for Friendship Lake is "Excess Algal Growth". In reading your information on the criteria for establishing the addition of lakes and waterways to this list you get input data from Wisconsin citizens and organizations. Can you give me any specific citizen and/or organization and the specific data submitted that caused you to propose the addition of Friendship Lake to the list? I am assuming that since the pollutant source is listed as "unknown" it was not a phosphorous measurement that prompted the addition of the lake to the list.
2. If the lake remains on the 2014 list, who provides input on the development of the TMDL? The DNR, the County, the Friendship Lake District? The Friendship Lake District is currently working with Adams county in establishing a Lake Management Plan that has the goal of controlling the lakes algal growth and phosphorous levels. I take it this was be a good resource.
3. Under the column, Listing Detail, were would I find the meaning of the "footnotes" in brackets such as 5A, 5B, 5P, etc.?

I look forward to getting a response to my questions and thank you for your time. Again, I am concerned that this label of impaired lake for Friendship Lake may affect my property value. If we do have to address the algal levels through this means and not just on the local county/DNR level then that is what we have to do.

Sincerely,

Laurence J. Swaziek
1083 Czech Ln.
Friendship WI 53934

From: Stephanie Prellwitz <stephanie@greenlakeassociation.com>
Sent: Friday, February 07, 2014 2:24 PM
To: DNR Impaired Waters
Subject: Big Green Lake as Impaired

Aaron,

I stand in support of listing Big Green Lake as an impaired water body for low dissolved oxygen as a result of high concentrations of phosphorus. Big Green Lake has a noticeable drop in DO concentrations at the thermocline, likely caused by presence of excessive phosphorus loads the fuel algae growth and consume oxygen.

Listing Big Green Lake as an impaired lake for low dissolved oxygen would be an important step in raising awareness of water quality issues and accelerating the installation of important conservation initiatives.

Thanks,
Stephanie



Stephanie Prellwitz | Interim Executive Director
Green Lake Association
492 Hill Street, Suite 105
PO Box 364 · Green Lake, WI 54941
(920) 294-6480 | office
www.greenlakeassociation.com | web



From: Soderbeck, Gene (MPCA) <Gene.Soderbeck@state.mn.us>
Sent: Wednesday, February 05, 2014 7:58 PM
To: DNR Impaired Waters
Subject: Proposed Listing of Big Wood Lake in Burnett County

Hi,

My name is Gene Soderbeck and I'm the current president of the Big Wood Lake Association located in Burnett County. I also collect Big Wood Lake water quality sampling for the citizen lake monitoring program. It was just brought to my attention that Big Wood Lake (Burnett County) is being proposed to be listed as "impaired" for excess algae with the pollutant listed as unknown. I've been collecting the Water Quality samples for over 10 years and find the trends (reported on the DNR website) to be improving ever since the **feedlot** on Little Wood Lake's been addressed. Albeit we still get some high phosphorus loading coming out of Little Wood Lake (upstream of Big Wood Lake) where the feedlot was located.

I've looked at the water quality data collected on Big Wood Lake and compared it against WisCALM methodology and cannot see the data which meets the criteria for listing. As such, we do not support the listing. Could you please provide an explanation of why it's being listed and the specific data being used as the basis of listing Big Wood Lake as impaired? Please email the response to me at gene.soderbeck@state.mn.us or mail it to me at 654 Tanglewood Drive, Shoreview, MN 55126.

Thank you very much.

Gene Soderbeck, President
Big Wood Lake Association

651-757-2743

From: Meredith Tripp [<mailto:brodheadbillie@msn.com>]
Sent: Thursday, February 13, 2014 4:55 PM
To: Larson, Aaron M - DNR
Cc: Winters John; Tripp Dick
Subject: Sugar River Impaired Listing

Dear Aaron,

In viewing the 2014 proposed Impaired Waters Listing I noticed a 45.15 mile segment of the Sugar River (AU ID 13651, WBIC 875300) was listed. This segment of the river runs south from HWY 69/Lake Belle View through Decatur Lake near Brodhead on to where it crosses Cty T in Green Cty. Since Decatur Lake is a riverine lake of the Sugar River should it not be classified as impaired too? Phosphorus sampling at lake location 0.85 miles NW of Park Rd and Decatur Rd (station ID 10039881), this past year by Wave Action Volunteer, Dick Tripp showed high phosphorus levels ranging from 0.0899 ppm/Aug. to 0.1460 ppm/June. Actually, in practical terms how can one separate the lake from the river? If the river is impaired so is the lake.

Clarification of this issue would be much appreciated.

Meredith Tripp
Decatur Lake Mill Race Association

From: Wallace, Robert <wallacer@ripon.edu>
Sent: Saturday, February 08, 2014 9:17 AM
To: DNR Impaired Waters
Subject: Comment on Draft 2014 Impaired Waters List

Green Lake, Green Lake Co.: impaired waterway -- low dissolved oxygen concentrations

I am a professor of Biology (Ripon College, Ripon, WI) with a PhD in aquatic ecology and over 40 years of teaching and research experience, including work on lakes in NH & WI, Lake Washington (WA), and lakes & reservoirs throughout the Chihuahuan Desert (USA & MX). I urge the DNR to list Green Lake (Green Lake Co.) as an impaired waterway due to the low dissolved oxygen concentrations that have been documented at about the level of the thermocline.

--

Sincerely,
Robert L. Wallace, Ph.D.
Patricia and Philip McCullough Professor of Biology
Department of Biology
Ripon College
300 Seward Street
Ripon, WI 54971-0248

920-784-8760
wallacer@ripon.edu
http://ripon.edu/academics/faculty/profiles/wallace_r.html

"The cure for boredom is curiosity. There is no cure for curiosity. -- D.L. Parker

From: Donald Zillmer <dzillmer@chibardun.net>
Sent: Thursday, March 06, 2014 11:51 AM
To: DNR Impaired Waters
Cc: Larson, Aaron M - DNR
Subject: Objection to adding Lake Chetac, Sawyer County on the 2014 Impaired Waters List

Counties	Local Waterbody Name	Water Type	WATERS ID	WBIC	Segment	Start Mile	End Mile	Length/Size	Units	Date Listed	Source
Sawyer	Lake Chetac	LAKE	16054	2113300	1	1920	Acre s	4/1/2014	PS/NPS	Total Phosphorus	Excess Algae Growth

I am writing to objection to adding Lake Chetac as an impaired water. The waters are not impaired for any uses.

After lake modeling, as reported in studies by SEH Engineering, the amounts of phosphorus in the lake sediments has been estimated and indentified as a primary source of phosphorus. The lake does have late summer algae growth which has been attributed to various conditions, including a die off of curly leaf pondweed. This is a natural recycling of the nutrients within the water body. This condition has existed since the beginning of recorded time, when dams backed up creeks to create the lakes. In fact, the condition of the lakes has been reported to have improved over time since settlement.

There are no point sources of nutrients or pollution into Lake Chetac. There are no agricultural non point source activities contributing to the nutrients or pollution into Lake Chetac. There are natural sources of new nutrients flowing into the lake from wetlands and human generated contributions from the highly developed shoreline. According to the Town of Edgewater Comprehensive Plan, Lake Chetac is the second most developed lake in Sawyer County. Old resorts and new seasonal homes remove natural vegetation, significantly increase impervious surfaces and create run-off into the lake. Rather than remediate and regulate, residential and recreational properties have accelerated shoreline degradation. These property owners refuse to abide by existing laws and the state seems to be moving to relax shoreland development rules which will not turn this situation around.

Lake Chetac is a headwater of the Red Cedar Basin. The Red Cedar Basin already is working on TMDLs. There is no need to duplicate a TMDL effort for Lake Chetac.

Lake Chetac has suffered another recent blow in that the local lake association has received funding to apply herbicides to the curly leaf pondweed and to experiment with applying alum to the lake bed. These steps were not the recommended first steps in the engineering studies and reports. In 2013, there was an extreme environment consequence with the application of Aquathol K. The DNR had permitted approximately 90 acres for treatment. Rather than apply the herbicide as prescribed by subsurface application over a period of a couple of days, the treatment was applied in just few hours to the surface using a large hose. The chemical drift reached over a mile and a half from the permitted acreage, resulting in over 800 acres of plant kill of beneficial native and non native species. The die off of vegetation of this extent may have suspended a load of nutrients early in the year (June). So rather than having clearer waters through out the spring and and early summer with shorter late summer blooms, the lakes suffered from algae for just about the entire season. Longtime fishermen reported the worst year for fishing in their experience and loss of important fish habitat.

As far as phosphorus in the sediments, it would be best to allow science and technology to evolve to the point where reclaiming and utilizing the phosphorus (and also the algae) is viable, rather than experiment with irreversible, temporary, costly and problematic methods to mask symptoms of the excess phosphorus.

Pursuing this method of lake management was undertaken by a small group of people and in opposition to many lakeshore owners, lake users and the local units of government. Should Lake Chetac become listed as an impaired water, no funds should go to the current lake association.

Sincerely,
Linda Zillmer
902 Holly Hill Lane
Birchwood, WI 54817
715 354-7806

From: Dick Swanson <rcs3395@yahoo.com>
Sent: Sunday, February 16, 2014 4:03 PM
To: DNR Impaired Waters
Subject: PER YOUR REQUEST

Under the WPDES permit process the DNR is restricted to addressing potential impacts to water quality from CAFO manure/process waste water handling activities....this is what you have told us! Water is the key then....so I have some questions for you: 1. Do the CAFO's take clean water out of the aquifer in massive amounts? 2. Does this clean water become brown water after use by the CAFO's? 3. Is this brown water mixed with other products and then stored in the lagoons? 4. How many gallons of water will a dairy cow use in one year? 5. How much manure will a dairy cow produce in one year? 6. Can your Dept. prove too the public how many acres of land the CAFO owner has under contract for manure spreading? 7. Is it required that these site be inspected/tested before spreading begins? 8. Does your Dept. believe the USEPA when they report...."that AG. application cause 75% of nutrient nitrogen and phosphorus runoff into our waterways." 9. What is CHEMICAL WARFARE?

Our water is under attack from it being used as a vehicle from these CAFO's.....pure clean water turned into a chemical and then spread upon the land at volumes reaching 65 TONS PER ACRE.....OR MORE....! Protect the land and air from this attack every year in Wisconsin....without the Water we all die....! The cumulative effect of these high capacity wells must be considered when new requests reach your office.....STOP THIS MADNESS NOW.....DO YOUR JOB AND PROTECT THE NATURAL RESOURCES OF WISCONSIN.....PLEASE.....! HOW CAN THIS CONTINUE IN AMERICA.....?

THANK YOU.
DICK SWANSON

EPA Comments on Wisconsin's 2014 draft 303(d) list
Public Notice from February 6 to March 6, 2014

Priority Ranking

1. Federal regulations require that waters on the 303(d) list that require TMDLs are given a priority ranking. Region 5 understands, generally, that WDNR takes into account the severity of pollution and the number of indicators exceeded when ranking waters impaired by total phosphorus (TP). Region 5 requests that WDNR clarify what factors and approaches are used to determine the high, medium, and low priority ranking's assigned to impaired waters.
2. EPA recommends that WDNR include in future updates to WisCALM a discussion of how available groundwater data are used in making general condition assessments of water resources (e.g. Section 2.0 and 3.0).

Total phosphorus assessments

3. WDNR staff indicated they could provide Region 5 staff an evaluation of how the lower 90th percent confidence interval performed over a set of sample water bodies in comparison to other statistics such as the mean and the median. Please provide this evaluation. Region 5 is also interested in the number of waterbodies that are placed in Category 3 (insufficient information) as a result of using the confidence interval approach, and how that number compares to the amount of waters that are listed as impaired.

Designated Use Impairments

4. Federal regulations specify that the 303(d) list include waters that are not meeting designated uses (40 CFR 130.7(b)(5)(i)). This information is not clearly provided in the draft list. Some information such as 'Impairment indicators,' does suggest which designated use(s) may be impaired, but does not clearly identify this information. In its final 2014 list, WDNR should identify which designated uses are affected by the impairments on the 303(d) list, or summarize designated uses that are impaired within waterbodies across the state.

Other Comments and Requested Clarifications

5. Please identify the proposed WDNR Categories for each of the waters listed in worksheet 'D 2014 Proposed Delistings' of the draft list). This information is necessary to complete SP-10 and SP-11 summary information collected by EPA.
6. In the final 2014 list, Region 5 requests that WDNR identify waters that are proposed for Category 4, including subcategories. This information will assist the region in completing its review of the waters that WDNR has identified as impaired, including waters that would not require TMDL development.

7. Region 5 requests that WDNR identify waters that were placed in Category 3 due to use of the confidence interval methods described for TP assessments (i.e., where an impairment decision is not made because the TP criterion is between the confidence interval values).
8. Region 5 requests that WDNR clarify the listing date for some waters. In the 2014 draft list 16 waters, shown in the table below, are identified in the 'Date listed' column as listed in 2013. On the final 2014 list, please clarify whether these 16 waters were proposed to be added on the 2012 or 2014 list. This clarification would improve accuracy of information summarized for different 303(d) list years.

Local Waterbody Name	WATERS ID	WBIC	Segment	Date Listed
Mississippi (Reach 4) Coon-Yellow - Pool 10 portion - Wis R to LD 9)	891939	721000	6	3/1/2013
Mississippi (Reach 2) Buffalo-Whitewater - Chippewa River to LD 6 (lower Pool 4 to Pool 6)	892047	721000	2	3/1/2013
Bullhead Lake	9881	68300	1	3/1/2013
Spirit River Flowage	128009	1506800	1	3/1/2013
Black River	18627	1676700	1	3/1/2013
Red Cedar River	888812	2063500	9	3/1/2013
Kickapoo River	887065	1182400	4	3/1/2013
Hemlock Lake	16230	1853400	1	3/1/2013
Round Lake T37n R18w S27	16676	2640100	1	3/1/2013
Mississippi (Reach 3) LaCrosse-Pine - LD 6 to Root River (Pool 7 to upper Pool 8)	892011	721000	3	4/1/2013
Mississippi (Reach 4) Coon-Yellow - Pool 8 portion - LD 8 to Root R.)	1848773	721000	4	4/1/2013
Root River	10533	2900	1	4/1/2013
Honey Creek	352889	892300	2	4/1/2013
Mississippi (Reach 4) Coon-Yellow - Pool 9 portion - LD 9 to LD 8)	1848750	721000	5	4/1/2013

9. Region 5 requests that WDNR clarify how it plans to follow-up on Watch Waters, and whether these waters are assigned to an Integrated Reporting category. As written it is unclear what further action is planned.
10. Please include, on the final 2014 list, the 'Waters ID's' for East Balsam Lake, Cazenovia Branch, and Unnamed Tributary to Yellow River.

Comments on WisCALM

The following issues Region 5 raised on Wisconsin's 2012 Consolidated Assessment and Listing Methodology (WisCALM) remain unresolved:

Tiered Uses and Biological Thresholds

1. From Page 1 of Region 5 comments to WDNR dated July 31, 2013: Region 5 remains concerned about the State's ability to produce sufficient data to make routine attainment determinations using the tiered monitoring approach, and about the biological thresholds used for assessing attainment. Region 5 would like to continue working with the State to resolve these issues and appreciates the work done recently on reviewing the biological assessment program.

Drinking Water

2. Based on the conversations between Region 5 and WDNR on March 7, 2014, it is our understanding that the footnote 2 on page 2 of the 2014 WisCALM document is no longer necessary because the Public Health and Welfare Use found at NR 102.04 (7) contains a designation for public drinking water supply that is equivalent to the Drinking Water use mentioned by Region 5 in past comments. Region 5 will assist WDNR in the Review of the current rule language to determine if revisions are necessary to clarify the existing language regarding public water supply.

Temperature Assessments

3. From Page 4 of Region 5 comments to WDNR dated July 31, 2013: The following items have not been addressed regarding temperature:
 - a) Section II.3 under Rivers and Streams Assessment, item "i"; and
 - b) Section II.3. under Lakes Assessment, item "i"; and
 - c) Section II.3 under Acute and sub-lethal temperature criteria, item "ii."