Public Comments Received on the
2016 Draft Impaired Waters List

A public comment period on the Draft 2016 Impaired Waters List was held from October 27, 2015 to November 25, 2015.
To whom it may concern,

We have been residents of Algoma for 20 years and have watched our beautiful Crescent Beach and the Lake Michigan waters become progressively worsened by the inflow of Ahnapee river water that contains a high content of Phosphorus. Often the waves are pea soup green and large areas of decaying algae line the beaches. A horrible stench blows in the wind. This is not only a health hazard but a huge quality of life issue for those living in or wanting to visit the city of Algoma.

A restoration plan for the Ahnapee river needs to be put in place to address this growing problem. Please consider implementing a plan with some urgency and make it a high priority in the 2016 budget.

Sincerely,

Barb and Barry Rodgers
To: Aaron Larson, DNR Water Evaluation Section

Re: Ahnapee River, Impaired Waters List 2016 draft

The Ahnapee River was placed on Wisconsin’s Impaired Waters List for excessive phosphorus levels in 2014, but assigned low priority status for development of the required restoration plan. I am writing to ask that the Wisconsin DNR’s 2016 list assign the highest priority to creating and implementing a plan to reduce phosphorus levels in the Ahnapee River.

High phosphorus levels contribute to algae growth that can impair fish and wildlife habitats, interfere with recreational activities, discourage tourism, affect property values, and impact public health. According to the 2014 “Crescent Beach Management & Monitoring Pollutants in the Ahnapee River Watershed” report the Ahnapee River also negatively impacts the health of Algoma’s Crescent Beach. Algae mats in near shore waters and on the beach serve as a reservoir for bacteria, a trap for litter, and an attraction for nuisance birds that contaminate the beach and surface water. The foul odor of rotting algae and algae filled waves the color of pea soup discourage beach use. These conditions now occur during most of the year.

The deteriorating health of the Ahnapee River watershed and Crescent Beach could have significant economic and public health consequences. The City of Algoma is doing its part by seeking grant money to address storm water issues. However, the existence and consequences of elevated phosphorus levels in our watershed are bigger problems than the City can address. Such an issue requires the help of state government.

As a member of the newly formed Friends of Crescent Beach, I am working with other volunteers to improve and promote our beach. As a lakeshore community, I believe we have a responsibility to do our part to be good stewards of our Lake Michigan watershed and shoreline.

Finally, concerns over poor water quality, its causes and remedies, are a controversial and divisive issue in Kewaunee County. A science based explanation of where pollution originates and what can be done about it followed by swift action to implement solutions would help to heal divisions.

Please acknowledge the urgent need to clean up the Ahnapee River by granting it the highest possible status on the 2016 Impaired Waters List.

Cathy Pabich
305 Fremont Street
Algoma WI 54201
I will make this short and to the point.....in JANUARY 2014 a 72 page report was published on the AHNAPEE RIVER....tests were taken at 20 separate locations beginning in the summer of 2012....MONITORING POLLUTANTS was the mission.....this river has gotten worse and worse since then. A private group of citizens have also been testing this river for over 3 YEARS NOW, and your Dept. has asked them for help with testing for phosphorus on this river, our test continue and will for a long time! WHY....because this river is a very high priority for the citizens living and playing on it. Algoma is a city with a long history of fishing and recreation activities, our beach is one in a million....!

Help save our river, we need our DNR Dept. and others to step up and be the leaders on this very important issue.

Thank you
Dick Swanson.
I am writing this letter today with great concerns on the status of the Ahnapee River. After reviewing the great number of rivers, creeks, and lakes affected by high levels of phosphorous, it is very clear as to what is causing this problem. The indiscriminate use of fertilizer and the spreading of liquid manure near our creeks and streams is the main problem along with lack of enforcement of regulations of these materials. It is also oblivious that with the increase of mega dairy farms and their blatant disregard for the harmful consequences of putting these chemicals near runoff areas is where the cause begins.

I am urging the DNR to raise the level of concern on the Ahnapee river to the highest level possible. My wife and I watch the Ahnapee river as it flows rapidly into Lake Michigan at Algoma, WI. It is so sickening to know that the phosphorous in that water is why the beach in Algoma is closed more than it is open. The bacteria in the water as well as the horrific stench from the algae makes this beautiful beach almost uninhabitable by humans or animals. This is a very sad commentary on the plight of this planet caused by a few people whose desire for profit totally out weighs the health of every citizen.

Respectfully submitted,
November 19th, 2015 by
Gareth GRIDLEY and Donna Gridley
147 N 8th Place
Sturgeon Bay, WI 54235
And
Natural Light Studio
84 N 2nd St
Algoma, WI 54201

Sent from my iPad
I urge that the clean up of the Ahnapee River watershed be reclassified to the highest priority. As a resident of Algoma I find the smell of rotting algae overpowering. We no longer go to the beach in summer. The economy of Algoma is dependent upon recreational fishing and tourism which are both negatively impacted by the algae growth. We used to catch and eat fish out of this river. We don't anymore.

Sent from my iPhone
I am very concerned that the importance of this river cleanup should be at the top of the DNR's priority list.

It is one of the area rivers that I paddle on with my family. If the phosphorus levels are that high that it could affect so many people plants and wildlife and other waterways - why the delay? Let's please get this cleaned up and use the funding to get it done.

Maybe find the sources of the cause also and potentially fine them as well. I know that there are a few factory farms in that area.

Thank you for stepping up and getting this cleaned up.

Jacque Jadin

Sent from my iPhone
It is with great concern that I request the Ahnapee River be added to the Wisconsin DNR's 2016 list of highest priority to create and implement a plan to reduce phosphorus levels. Improving the River will also improve the health of Crescent Beach in Algoma. The high phosphorus levels are contributing to algae growth which impairs fish and wildlife habitats, and interferes with recreational activities. The negative affects on tourism, property values, and public health is obvious by just looking at the Lake. The deteriorating health of the Ahnapee River watershed and Crescent Beach will have significant economic and public health consequences.

Please consider my concern and the concerns of my friends and family in Algoma.

Sincerely,
Joann Wiesner
2024 Lake Street
Algoma, Wi. 54201

262-689-8966
Joannwiesner@yahoo.com

Sent from my iPad
I am very concerned that the Ahnapee River needs to be a priority for cleanup under the impaired water status as we have a large number of users. The river has a fairly large group of recreation users and provides an economic base for campgrounds and the sport fishing business along the banks. A large part of the problem is the farm factories upstream and the runoff of liquid manure. Are we to accept pollution from these factories as just normal business, Are the citizens of Wisconsin just second class and not entitled to a clean environment? I'm appalled by the lack of concern over water quality i.e. lakes, streams and rivers and wells. I think we are reaching a tipping point where we need to act or we face serious long term loss of clean drinking and recreation water.

Joseph R. Weimer
Ahnapee River Trails Campground
E6053 W. Wilson Rd.
Algoma, WI 54201
920-487-5777
To: Aaron Larson, DNR Water Evaluation Section  

Re: Ahnapee River, Impaired Waters List 2016 draft  

The Ahnapee River was placed on Wisconsin’s Impaired Waters List for excessive phosphorus levels in 2014, but assigned low priority status for development of the required restoration plan. I am writing to ask that the Wisconsin DNR's 2016 list assign the highest priority to creating and implementing a plan to reduce phosphorus levels in the Ahnapee River.

High phosphorus levels contribute to algae growth that impairs fish and wildlife habitats, interferes with recreational activities, discourages tourism, affects property values, and impacts public health. According to the 2014 “Crescent Beach Management & Monitoring Pollutants in the Ahnapee River Watershed” report, the Ahnapee River also negatively impacts the health of Algoma's Crescent Beach. Algae mats in near shore waters and on the beach serve as a reservoir for bacteria, a trap for litter, and an attraction for nuisance birds that contaminate the beach and surface water. The foul odor of rotting algae and algae filled waves the color of pea soup discourage beach use. These conditions, once limited to summer months, now occur during most of the year.

The deteriorating health of the Ahnapee River watershed and Crescent Beach could have significant economic and public health consequences. The City of Algoma is doing its part by seeking grant money to address storm water discharge issues. The county has passed an ordinance to limit liquid manure spreading during recharge periods (January 1 to April 15) to limit potential aquifer contamination and runoff pollution. However, the existence and consequences of elevated phosphorus levels in our watershed are bigger problems than the City and county can address. Such an issue requires the help of a responsive state government.

As a member of the newly formed Friends of Crescent Beach, I am working with other volunteers to improve and promote our beach. As a lake shore community, I believe we have a responsibility to do our part to be good stewards of our Lake Michigan watershed and shoreline.

Finally, concerns over poor water quality, its causes and remedies, are a controversial and divisive issue in Kewaunee County. A science-based explanation of where phosphorous pollution originates, and what can be done about it, followed by swift action to implement solutions would help to heal divisions.

Please acknowledge the urgent need to clean up the Ahnapee River by granting it the highest possible status on the 2016 Impaired Waters List.

John Pabich  
305 Fremont Street  
Algoma WI 54201
DNR Staff,

You will find attached a letter from the Board President, John Kirsch, of the Lakeshore Natural Resource Partnership regarding the Ahnapee River. If you have any questions, feel free to contact John at (920) 693-3209.

Thank you for your consideration,

Sherrill Anderson
Regional Outreach Coordinator
Lakeshore Natural Resource Partnership
920-849-7053 (office); 920-412-1920 (cell)
Website: www.LNRP.org; FB: www.Facebook.com/4lnrp
Cultivating Community & Stewardship from the Ledge to the Lakeshore
November 24, 2015

Dear DNR Water Regulations Staff,

I am writing a letter requesting the reassignment of the Ahnapee River in Kewaunee County to the highest priority on your 2016 list of Wisconsin’s Impaired Waters. This reassignment is needed to create and implement a plan to reduce increasing phosphorus levels. As President of the Lakeshore Natural Resource Partnership’s Board of Directors, I am aware of the historical and ongoing issues leading to Algoma’s deteriorating water quality. We support the Friends of Crescent Beach, one of our program partners, in their efforts to clean up the beach and the waters that flow into Lake Michigan.

The Ahnapee was first put on your Impaired Waters List in 2014 but at low priority status. This river is historically well above Clean Water Act water quality standards for phosphorus. These high levels contribute to algae growth which impairs fish and wildlife habitats, recreational enjoyment, tourism, property values and even public health.

A 2014 report, ‘Crescent Beach Management & Monitoring Pollutants in the Ahnapee River Watershed,’ underscores the river’s negative impacts to Algoma’s Crescent Beach. Thick mats of algae in near-shore waters and on the beach become a reservoir for bacteria, litter, and attract nuisance birds which further contaminate the beach and surface water. Tourists and local citizens alike are repelled by foul smelling, rotting algae and pea soup-colored water.

The Ahnapee River watershed’s deteriorating health could have significant economic and public health consequences for the community and Lake Michigan. While the City of Algoma is seeking funding to address stormwater issues, DNR must act to address the Ahnapee River.

We appreciate your consideration of our request.

Sincerely,

John M. Kirsch
Board President, Lakeshore Natural Resource Partnership
P.O. Box 358
Cleveland, WI 53015
(920) 693-3209
The Ahnapee River was placed on Wisconsin’s Impaired Waters List for excessive phosphorus levels in 2014, but assigned low priority status for development of the required restoration plan. Please change this to the highest priority to create and implement a plan to reduce phosphorus levels in the Ahnapee River.

Why does this matter?

The Ahnapee River does not meet Clean Water Act water quality standards for phosphorus. High phosphorus levels contribute to algae growth that can impair fish and wildlife habitats, interfere with recreational activities, discourage tourism, affect property values, and impact public health. According to the 2014 “Crescent Beach Management & Monitoring Pollutants in the Ahnapee River Watershed” report the Ahnapee River negatively impacts the health of Algoma’s Crescent Beach. Algae mats in near shore waters and on the beach serve as a reservoir for bacteria, a trap for litter, and an attraction for nuisance birds that contaminate the beach and surface water. The foul odor of rotting algae and algae filled waves the color of pea soup discourage beach use. The deteriorating health of the Ahnapee River watershed and Crescent Beach could have significant economic and public health consequences. The City of Algoma is doing its part by seeking grant money to address storm water issues, but the Ahnapee River requires DNR action.

As a local resident and recreational enthusiast, I value the resource that we have in both the Ahnapee River and Crescent Beach. I want to see these resources continue to be available for recreation, contemplation, and wildlife habitat. Please make this change and designate this beautiful river as one of highest priority so that it can continue to be a local gem that draws recreational enthusiasts and tourists from all over the state and beyond and stimulates and supports the local economy.

Thank you for your time,

Melissa Dupke

Melissa Dupke  
Lead Teacher  
Denmark Community School  
Middle School Cross Country Coach  
School: (920) 863-4153/(920) 863-4154  
Cell: (920) 609-8985
Please move the Ahnapee River up to **highest priority** for restoration. This is an area that is experiencing very high levels of phosphorus in this river and other streams which then feed into Lake Michigan. Pristine rivers, streams and lakes attract tourists of all kinds and those tourists frequent shops, restaurants and hotels in the area so there is an economic reason to make this restoration a high priority.

But more important than economics is the health of residents in this area. We need to work diligently to mitigate phosphorus runoff and other chemicals of all kinds and preserve clean water. I would like to be able to go rock hopping in the river with my grandson when he comes to visit this summer and be able to take him to Crescent Beach regularly.

Sent from Mail for Windows 10
This is a main source for recreation in the Algoma/Kewaunee county area as well as a breeding ground for numerous aquatic life, waterfowl and animals. The number of mega farms in this area has a significant impact on the water quality of this water source. This also is a significant contributor to the excess levels of phosphorus and animal waste found in Lake Michigan. We need to ensure that this water way is not allowed to continue to be neglected and abused.

Respectfully,

Phillip M. Steffen  
E5898 Fremont Road  
Algoma, WI 54201

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To Whom It May Concern -

I am in full support of updating the status of the Ahnapee Watershed to High Priority for phosphorus pollution.

As the owner of a tourism based business and lakefront property owner, this decision will protect investments I have made in Kewaunee County commercial real estate and my homes value.

Maintaining a healthy, clean environment for travelers to Kewaunee County is becoming increasingly more difficult as surface and groundwater pollution increases in all three of our counties watersheds. As stated below,

"According to the 2014 “Crescent Beach Management & Monitoring Pollutants in the Ahnapee River Watershed” report the Ahnapee River negatively impacts the health of Algoma’s Crescent Beach. Algae mats in near shore waters and on the beach serve as a reservoir for bacteria, a trap for litter, and an attraction for nuisance birds that contaminate the beach and surface water. The foul odor of rotting algae and algae filled waves the color of pea soup discourage beach use.

The deteriorating health of the Ahnapee River watershed and Crescent Beach could have significant economic and public health consequences. The City of Algoma is doing its part by seeking grant money to address storm water issues, but the Ahnapee River requires DNR action." - Friends of Crescent Beach

A multi-faceting economy is necessary for healthy communities. Please support our efforts in a providing a clean, healthy environment for residents and taxpayers of Kewaunee County. My own 13 year old business appreciates your consideration.

Robyn Mulhaney
The Flying Pig, LLC
N6975 State Hwy 42
Algoma, WI 54201
Please put the Ahnapee River on your highest priority list for study to determine sources of the extreme phosphorus levels that exist and set a plan in action to solve the problem. Algoma is highly affected by the river and use of our marina and beach are key economic drivers. Accurate information on the source of the pollutants will help solve our issues and I hope the studies can be done sooner than later and a solid corrective plan put into place. I am a member of the city Community Development Committee, Algoma Mainstreet Board Member, Kewaunee County Economic Development Business Retention Committee, an Algoma Lions Club and Optimists Club member, Children’s Promise Board Member, and concerned citizen. All the entities I am involved with need and want an unpolluted Ahnapee River. Thanks for your help.

Ron Welch
110A Summit Beach Drive
Algoma, WI 54201
920-304-0294

Sent from my iPad
Mr. Larson

My name is Ruben Griess and my wife and I own a home on the Ahnapee River located at 704 N Water St., Algoma WI. We have lived at this address since March 1980. Over the past 25 years, we have noticed a continual decline in the quality of the river and its water to include an increase in algae growth and water discoloration. In addition to the poorer water quality in the river, the entire harbor and beach is experiencing higher algae levels that wash up on the shore, rot, stink and create a health hazard, negatively impacting the city, tourism and local economy.

I have recently learned that this decline is likely the result of higher concentrations of phosphorus in the water. It is my understanding that your organization determines a priority level for clean up and have assigned a very low priority for the Ahnapee River, harbor and Algoma beach. The water of the Ahnappee and Lake Michigan is the single most important driver of Algoma's economy. As such, I urge you and your organization to raise your priority to its highest level and do all you can as quickly as you can, allocating every resource available to clean up and remove the phosphorus from the Ahnappee River.

Please respond indicating your plans to clean up the Ahnappee.

Respectfully yours,
Ruben A Griess
704 N Water St
Algoma, WI 54201
Dear DNR Representatives,

We are homeowners in the Township of Ahnapee, residing just north of Algoma, Wisconsin. The Ahnapee River empties into Lake Michigan less than two miles from our property and its 400+ feet of Lake Michigan shoreline. From our kitchen windows and front yard we have witnessed the increasingly frequent buildup of algae on our beach, sometimes with mounds several inches in depth. It is difficult to overlook that distressing sight and its stench, not to mention the negative impact this may have on our health, our property value, the wildlife, and local tourism.

Blame for this condition can be cast in many directions, but one of the obvious culprits is the discharge of pollutants from the Ahnapee River. Anyone can observe the "brown" Ahnapee emptying into Algoma's harbor which, depending on tides and winds, is then dispersed north to our property or south to Algoma's beautiful Crescent Beach.

Just over ten years ago the Ahnapee River was a clean stream with some of the best brook and brown trout fishing in all of Wisconsin. Wood turtles, endangered redside dace, mink, otters, beavers, raccoons, muskrats, and some rare birds used to live on or near the river. Now the Ahnapee is a sterile lifeless body of water. The trout and diverse wildlife are gone, with deer being the only wildlife living nearby. Instead of a clean river, we now see dirty brown water with huge white froths floating downstream. Shame on us for allowing this to happen.

We urge you to begin the process of restoring the Ahnapee River to its former state. Phosphorus levels which contribute to algae growth must be reduced, with implementation plans being given the DNR's very highest priority. We respectfully ask that the DNR's 2016 Restoration List place the Ahnapee River among those impaired waters requiring immediate cleanup action.

Please help bring back our Ahnapee River!

Sincerely,

Sue and Dan Hass
N8444 County Road S
Algoma, WI  54201
(920) 487-7220
Dear Sir:

Living a block from the Ahnape River in Algoma and going to the park along the river daily I am aware of the river's problems. (e.g. excessive phosphorus, PCBs and limited Lord knows what else—if not showing up on a test doesn't mean it isn't there). I must keep my dog from drinking river water for when he did he got diarrhea.

As the DNR is to protect our natural resources, do your job.

Sincerely,

Mary Margaret Raymuth
Please find my comments on the above mentioned body of water under the Clean Water Act. This body of water is listed on the draft list as a lake, when in fact it is just a widening of the Beaver Dam River. It should be listed as a river, as is it certainly is not a lake. The lake (impoundment or flowage) is a dammed up 15 mile stretch of the Beaver Dam River. The water quality standard criteria in this impoundment is impossible to obtain. Historically the riverine system is a river running through a wetland, which by nature is a nutrient trap. Thus, the body is simply a wetland with too much water above it. You cannot improve water quality with this condition. Too much taxpayer money has already been spent on this wetland (trying to create the impossible). With the problems of global warming the water must be removed and let nature take over growing back the original vegetation to let this nutrient trap naturally reduce pollutants and have the vegetation collect greenhouse gases. Under the Clean Water Act, the dam should be opened slowly letting the impoundment drain, remove the dam at the owners expense and therefore avoiding a environmental justice lawsuit that the owner is greatly liable for obviously.

Patrick Clark
Associate Vice President - Investments
Wells Fargo Advisors
128 Monroe St, Beaver Dam, WI 53916
patrick.clark@wfadvisors.com
P 920-887-8766 F 920-887-2273
Dear Mr. Larson,

I have reviewed the draft 2016 Impaired waters list. I note the Black River in Sheboygan County is an impaired Waterway listed in the Level 2 restoration plan. The Black River is in an area of the state which receives a poor aquatic ecosystem health score and high vulnerability rating.

The Black River is impaired due to one or more pollutants and associated quality impacts. At least one macroinvertebrate or fish Index of Biotic Integrity (IBI) scored in the poor condition category.

Of significance is the fact the Black Rivers flows into Lake Michigan. The Black River forms the western border of several hundred acres owned by the Kohler Company. The Kohler Company has proposed a golf course for their property. As this is a very contentious project, I am sure you are aware of their request for state owned land to be included with their proposed golf course.

I question how the Black River can improve if Kohler Company is allowed to build a golf course in this rare ecosystem. What testing will be put in place to protect the already failing Black River?

Sincerely,
Jayne Zabrowski
Sheboygan, WI 53081
Dear Mr. Larson,

Attached is a letter of comment on the Draft 2016 Impaired Waters List. Also included for your review are the raw data referenced throughout the letter, as well as a summary of the field procedures used for sample collection from stream and lake sites.

Please confirm receipt of this email and let me know if you have any questions.

Thank you for your consideration,

Randy

Randy A. Lehr, Ph.D.
Distinguished Professor of Environmental Science and Management
Co-director, Burke Center for Freshwater Innovation
Northland College
1411 Ellis Ave.
Ashland, WI 54806
715-682-1261
November 24th, 2015

Aaron Larson
DNR, Water Evaluation Section (WY/3)
P.O. Box 7921
Madison, WI 53707
Submitted Electronically to: DNRImpairedWaters@wisconsin.gov

Dear Mr. Larson,

I am writing in response to the request for public comment on Wisconsin’s 2016 Draft Impaired Waters List. In particular, my comments are focused on three waterbodies in Bayfield County, south Fish Creek, Chequamegon Bay and the Namakagon Chain of Lakes. Data we (and others) have collected over the last three years suggest that:

1. Total phosphorus (TP) concentrations in south Fish Creek exceed the state water quality criterion when assessed using the Wisconsin Consolidated Assessment and Listing Methodology (WisCALM). Thus, this waterbody should be added to the 2016 impaired waters list.

2. TP concentrations in Chequamegon Bay are at, or above, the state criterion for nearshore waters in Lake Superior. Evaluation of Chequamegon Bay for impairment is highly dependent on the extent of the data included in the assessment. Specific guidance is necessary for the interpretation of nutrient data against numeric water quality criteria for the nearshore of Lake Superior.

3. TP concentrations in Lake Namakagon (currently proposed for inclusion on the 2016 list) do not exceed the state water quality criterion when assessed using WisCALM. TP concentrations in Jackson Lake (part of the Namakagon Chain of Lakes) do exceed the state criterion, but are likely as a result natural processes (e.g., continual wind mixing). Thus, Lake Namakagon should be removed from the 2016 Impaired Waters List.

**South Fish Creek**

A range of data exist to describe current water quality conditions in south Fish Creek. Since 2014, our research group has collected a variety of physical and chemical data from south Fish Creek, and a series of nearby tributaries throughout the Chequamegon Bay area (Figure 1). At each tributary monitoring site, continuous discharge data have been collected, as well as sub-surface water grab samples. Sample site locations were selected to describe general water quality conditions throughout the watershed and to characterize the total load of phosphorus (and various other chemical constituents) entering Chequamegon Bay from south Fish Creek (and a variety of adjacent tributaries). Grab samples were collected approximately every two weeks from snow melt to ice cover and analyzed for TP, soluble reactive phosphorus (SRP), total suspended solids (TSS), fecal indicator bacteria (E. coli) and biochemical
oxygen demand (BOD). Biweekly sample collection was also supplemented with storm-event based sampling. Data from biweekly and storm-event sampling are separated in the attached spreadsheet(s) to highlight recurring monthly samples that meet the criteria for use in a condition assessment.

All data have been collected using a variety of quality assurance and quality control (QA/QC) procedures. Discharge and water chemistry data from these sites were collected following standardized United States Geological Survey (USGS, see attached) protocols and have been analyzed at the WDNR-certified, Applied Research and Environmental Laboratory (ARELab) at Northland College (Laboratory Identification Number 802057300; Limit of Detection for TP = 1.5 ug/L; Limit of Quantification for TP = 5 ug/L). All field samples were collected with corresponding field blanks and all laboratory data were evaluated against laboratory blank, replicate and matrix spike samples. All individual sample results were reviewed by three separate analysts/managers prior to final data validation and submission to the WDNR Surface Water Information Management System (SWIMS) database. All field and laboratory technicians are initially trained and must document procedural and/or blind sample proficiency prior to sample collection and/or analysis. Following initial demonstrations of proficiency, ongoing performance by all technicians is certified annually.

Data collected to date suggest that TP concentrations in south Fish Creek (and adjacent Bay City Creek) are significantly higher than other tributaries draining to Chequamegon Bay and that ambient concentrations are above the state water quality criterion (Figure 2). When the WDNR WisCALM criteria/protocol for determining impaired water status is applied, data collected between 2014 and 2015 suggest that south Fish Creek (and likely adjacent Bay City Creek) meet the criteria for impaired waters designation.

**Chequamegon Bay**

A range of physical and chemical data also exist to characterize water quality conditions throughout Chequamegon Bay. Water quality data have been collected from 11 sites throughout Chequamegon Bay approximately every two weeks since the June of 2014 (Figure 3). Vertical water quality profiles of temperature, pH, dissolved oxygen and conductivity have been collected at all sites, as well as surface water composite samples for water chemistry. Composite samples are collected using a two meter tube methodology following a modification of United States Environmental Protection Agency (USEPA) protocols for the assessment of lakes (see attached). Water samples from Chequamegon Bay have been analyzed for the same suite of parameters as tributary sites (see above), but also include chlorophyll-a. All water quality samples have been analyzed at the ARELab at Northland College. TP data were also collected by the USEPA throughout Chequamegon Bay in 2008 using 1-liter grab samples and following a federally approved Quality Assurance Project Plan (QAPP). TP concentration data from biweekly sampling are described in the attached spreadsheets to highlight recurring monthly samples.

Data from Chequamegon Bay suggest that existing phosphorus concentrations were at, or above, the state water quality criterion (TP ≤ 5 ug/L) in 2014 and 2015 and have been observed to potentially exceed the water quality criterion in select years (e.g., 2008) by a significant margin (Figure 4). However, evaluation of Chequamegon Bay for impairment is highly dependent on the extent of the data included in the assessment. (Table 1). If all data from all 11 sites, collected on a monthly basis by Northland College between June and August are averaged, the resulting TP concentration is 5.7 ug/L. If two “open lake” sites (CB 10 and CB 11) are excluded from the analysis, the average TP concentration increases to 6.5 ug/L. If only sites inside the breakwall are considered in the analysis, the average TP concentration increases to 9.3 ug/L. When data from USEPA from 2008 are included in the analysis, the average TP concentration observed across these areas approximately doubles.
Lake Namakagon
A variety of data exist to describe water quality conditions in lakes throughout the Namakagon Chain of Lakes. TP data from Lake Namakagon (WBIC 2732600), Garden Lake (WBIC 2735500) and Jackson Lake (WBIC 2734200) have been collected by different groups over the past 15 years. These data suggest that the annual growing season (June –August) TP concentrations in Lake Namakagon (20 ug/L) and Garden Lake (24 ug/L) are below the corresponding water quality criterion of 30 ug/L for a stratified drainage lake, and thus should not be listed as impaired waterbodies. The annual growing season average TP concentration for Jackson Lake is 51 ug/L, which is over the 40 ug/L criterion for un-stratified drainage lakes. However, this elevated TP concentration is likely a result of continual wind mixing of the water column (see Figure 6) and not of a specific pollutant source (particularly given the limited development throughout the watershed). All data presented below for the Namakagon Chain of Lakes were access from the WDNR Surface Water Viewer/SWIMS database in August of 2015.

Summary and Attachments
As this letter highlights, there are a range of data that can be included in an impaired waters assessment for south Fish Creek, Chequamegon Bay and the Namakagon Chain of Lakes. Attached for your review are the raw data used to generate the referenced tables and figures and our associated field Standard Operating Procedures (laboratory procedures are assessed as part of the recurring certification process with the WDNR). The data spreadsheet is organized into four “tabs”. The first tab includes all raw TP data referenced throughout this letter. The second tab includes all data collected from 2014 and 2015 from south Fish Creek. The third tab contains the subset of data that characterize the results from monthly monitoring for TP throughout the south Fish Creek watershed in 2014 and 2015. The fourth tab contains the TP results that reflect monthly monitoring on Chequamegon Bay from 2014 and 2015. All data referenced throughout are also available through the SWIMS database. Should your review of the existing data require any clarification of my comments, please contact me directly.

Thank you for your consideration.

Sincerely,

Randy Lehr, Ph.D.
Distinguished Professor of Environmental Science and Management
Co-director Burke Center for Freshwater Innovation
Figure 1. Tributary monitoring sites (blue dots) located throughout the Fish Creek watershed. Fish Creek watershed is outlined in yellow. South Fish Creek sub-basin is highlighted in red. Site acronyms are clarified in the attached spreadsheet and specific locations are identified in the SWIMS database.
Figure 2. Phosphorus concentrations measured in south Fish Creek as compared to adjacent Chequamegon Bay tributaries and the state water quality criterion (median of 75 ug/L) in 2014 and 2015. “x” represents 2014 and “•” represents 2015.
Figure 3. Routine water quality monitoring sites throughout the Chequamegon Bay and Apostle Islands. Maximum extent of Chequamegon Bay defined by yellow dotted line. Inner Bay (behind break wall) identified by red dotted line.
Figure 4. Surface water phosphorus concentrations collected from a range of sites located throughout the Chequamegon Bay as compared to the state water quality criterion. Data from 2008 were collected by the USEPA. Data from 2014-2015 were collected by Northland College. Red bars represent daily average from all 11 sites. Red dotted line represents total phosphorus water quality criterion of 5 ug/L.
Table 1. Total phosphorus concentrations (ug/L) from all Chequamegon Bay sites as sampled by Northland College and the United States Environmental Protection Agency (USEPA). Individual sample concentrations are reported as averages across all 11 sites (“All Sites”), at 8 sites that represent the “Bay” (outer extent defined by the Long Island sand spit) and three sites that represent the “Inner Bay” (defined by the Ashland Break wall).

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<td>5.3 5.9 7.5</td>
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</table>

Cumulative Averages Without 2008 Data from USEPA

|                       | 5.7 | 6.5 | 9.3 |

Cumulative Averages With 2008 Data from USEPA

|                       | 9.6 | 10.9 | 20.7 |
Figure 5. Annual average phosphorus concentrations as compared to the state water quality criterion for Lake Namakagon (a), Jackson Lake (b) and Garden Lake (c), in Bayfield County, WI.
Figure 6. Thermal stratification patterns in Lake Namakagon, Jackson Lake and Garden Lake, in Bayfield County, WI, in 2013. Dark red indicates the highest temperature. Profile data were consistent between 2013 and 2014 and suggest that both Garden Lake and Lake Namakagon stratify each year, while Jackson Lake does not.
Aaron Larson,

Please find the attached comments from the Lac Courte Oreilles Lake Association regarding the WDNR proposed draft 2016 impaired waters list.

Thank you,

--

Kris W. Sivertson RLA
COLA, President
715-210-0818
krisw3690@gmail.com
November 25, 2015

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

SUBMITTED VIA EMAIL TO:
DNRImpairedWaters@wisconsin.gov

RE: Courte Oreilles Lakes Association Comments regarding the Wisconsin Department of Natural Resources (WDNR) proposed draft 2016 impaired waters list.

Dear Mr. Larson

The Courte Oreilles Lakes Association (COLA) is providing the following comments regarding three Sawyer County Wisconsin lakes: Sissabagama Lake, Whitefish Lake and Lac Courte Oreilles (LCO) that are addressed in the WDNR proposed draft 2016 impaired waters list. These three lakes are connected to one another and are a significant part of the head water drainage area of the Couderay River watershed (UC 20) (See attached flow map).

COLA Comments

1. SISABBAGAMA LAKE – (WBIC 2393500) In June 2014 Sissabagama Lake was approved by the U.S. Environmental Protection Agency (U.S. EPA) for inclusion on the 2012 Wisconsin list of impaired waters. The impairment pollutant was listed as total phosphorus, the impairment indicator was listed as “excess algal growth,” and the Lake was assigned to DNR Category 5A with the listing detail stating “TMDL needed.”

In the draft 2016 impaired water list, WDNR proposes to change the DNR Category from 5A to 5C and the listing detail from “TMDL needed” to “Natural Conditions (5C).”

COLA comments that WDNR has not provided the rationale or supporting information as to why the DNR Category should change from 5A to 5C. In addition, COLA comments that during the 2012 listing process, WDNR, in response to comment(s) received, vigorously defended its proposed DNR Category 5A listing for Sissabagama Lake.
Finally, COLA comments that WDNR has placed Sissabagama Lake under Source Category- PS/NPS implying that a combination of point source and non-point source discharges are causing the total phosphorus impairment of Sissabagama Lake. If this is the case, then the proposed DNR Category of 5C is inappropriate.

COLA requests that WDNR retain the DNR Category 5A listing for Sissabagama Lake until such time as either a TMDL is completed or a site specific criterion is approved.

COLA also requests that WDNR address the “Source Category” comment above. In the Department’s response to comments, please identify the point source(s) the Department believes are contributing to the impairment of Sissabagama Lake.

2. WHITEFISH LAKE—(WBIC 2392000) WDNR is proposing to list Whitefish Lake, Sawyer County as an impaired water because the total phosphorus criterion has been exceeded. COLA agrees with this assessment and supports the listing of Whitefish Lake.

WDNR also proposes to place Whitefish Lake in DNR Category 5P, (total phosphorus criteria exceeded/biological impairment has not been demonstrated). COLA comments that there is a well-documented case history of biological impairment in the Lake Fishery Files of the WDNR, Hayward Service Center. This documentation includes reports of lake whitefish fish kills, concerns raised regarding loss of cold water fishery habitat, reports on catastrophic run-off events depositing sediment in the lake and AIS infestation (Eurasian water milfoil) impeding navigation and recreation.

Based on review of the Hayward Service Center files, COLA believes there is sufficient evidence/documentation of biological impairment of Whitefish Lake and requests that WDNR list Whitefish Lake in DNR Category 5A in the final 2016 impaired water list that is submitted to U.S. EPA.

Finally, WDNR’s proposed 2016 listing places Whitefish Lake in Source Category-PS/NPS. COLA requests that WDNR identify the point source(s) the Department believes are contributing to the impairment of Whitefish Lake in the Department’s response to comments.

3. SEPARATE LISTING FOR MUSKY BAY, LAC COURTE OREILLES – (WBIC 2390800) In the draft 2016 impaired water list WDNR continues to perpetuate the myth that Musky Bay of LCO is a separate body of water from the rest of the lake, with no connection or mutual influence between waters of LCO and Musky Bay.

Even more disturbing is the determination by WDNR to apply a lake classification to Musky Bay that is different from the classification that is applied to the rest of LCO, in order to apply a phosphorus criterion that is less protective than for the rest of the Lake. COLA can only deduce that these arbitrary determinations made by WDNR are intended to protect the cranberry operations that discharge into Musky Bay and that have, in large part, caused the impairment of Musky Bay.

COLA completely rejects these determinations on the part of the WDNR.

COLA requests that WDNR remove “Musky Bay” under the Local Name category and substitute with: Lac Courte Oreilles and remove “Bay/harbor” under the Water Type category and substitute with: Lake.

In addition, as WDNR knows from their participation in scoping, COLA provided regular updates, WDNR review of draft documents and WDNR provided funding, COLA has undertaken an LCO wide Total Daily Maximum Load study as required by the section 303(d) of the Federal Clean Water Act.

Since a draft TMDL has been prepared, COLA requests that WDNR change the designation from “Low” to “High” under the TMDL Priority category in the final 2016 impaired water list that is submitted to U.S. EPA.

Finally, WDNR’s proposed 2016 listing places Lac Courte Oreilles in Source Category –PS/NPS. COLA requests that WDNR identify the point source(s) the Department believes are contributing to the impairment of Lac Courte Oreilles in the Department’s response to comments.

4. UNPROTECTIVE IMPAIRMENT THRESHOLD FOR TOTAL PHOSPHORUS – The WisCALM assessment approach currently applied by WDNR requires an evaluation of the confidence interval around the mean of monthly average total
phosphorus concentrations during the growing season (June 1 through September 15). For a lake to be included on the 303(d) list as impaired and to have priority put on the development of a TMDL, using only total phosphorus data, the lower 90th percentile of the confidence interval around the mean must exceed the phosphorus criterion by more than 1.5 times. This basically means that for Lac Courte Oreilles (WBIC 2390800) to be listed as impaired based solely on total phosphorus data, there must be 95% certainty that the average monthly total phosphorus concentration is more than 150% of the current 15 µg/L criterion, or greater than 22.5 µg/L. Being 95% sure that total phosphorus is averaging greater than 22.5 µg/L in LCO is a high bar for determining impairment and taking needed steps to restore and protect the resource, especially considering LCO is an Outstanding Resource Water (ORW). The current WisCALM approach leads to a high probability that LCO will not be listed as impaired until it has already undergone significant degradation. This is clearly not the intent of the impairment thresholds, which, as stated in WisCALM, “must be in line with the intent of the water quality criteria in code.” The impairment assessment methodology should be revised to provide sufficient protection for ORWs such as LCO.

5. ASSESSMENT OF LAC COURTE OREILLES USING WISCALM DISSOLVED OXYGEN IMPAIRMENT INDICATOR – WisCALM includes an impairment indicator threshold of 6 mg/L in the hypolimnion of two-story lakes. If greater than 10% of the dissolved oxygen measurements in the hypolimnion are less than the threshold during the ice-free period, the lake is to be assessed as impaired and included in Category 5A, indicating development of a TMDL is a priority.

An analysis of the last 5 years (2011-2015) of dissolved oxygen data in Lac Courte Oreilles (WBIC 2390800) suggests that LCO is impaired (see attached LCO Hypolimnion Dissolved Oxygen). The table below summarizes the assessment of the dissolved oxygen measurements in the hypolimnion of LCO. Based on this assessment, COLA requests WDNR to include LCO on the 2016 303(d) list as impaired in Category 5A, in accordance with WisCALM. While phosphorus data does not support an impairment decision based on WisCALM methodologies (see comment 4 above), it is clear that excess algal productivity resulting from anthropogenic phosphorus loads to LCO is contributing to dissolved oxygen depletion. As an Outstanding Resource Water, LCO requires immediate attention to restore water quality and protect it from further degradation. LCO is one of only 5 inland lakes in Wisconsin to have both cisco and lake whitefish reported present. Sufficient dissolved oxygen in the hypolimnion is critical to protecting this fishery.

Percent of individual dissolved oxygen measurements in the hypolimnion during the ice-free period with concentrations less than 6 mg/L.

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<th>Location</th>
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<td>LCO-2 (West Basin)</td>
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<tr>
<td>LCO-3 (Central Basin)</td>
<td>68%</td>
</tr>
<tr>
<td>LCO-4 (East Basin)</td>
<td>34%</td>
</tr>
<tr>
<td>Lake-wide (West, Central and East Basins)</td>
<td>53%</td>
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Percent of average hypolimnion dissolved oxygen concentrations during the ice-free period with concentrations less than 6 mg/L.

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<td>LCO-3 (Central Basin)</td>
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<tr>
<td>LCO-4 (East Basin)</td>
<td>50%</td>
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<tr>
<td>Lake-wide (West, Central and East Basins)</td>
<td>67%</td>
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Please feel free to contact me with any questions pertaining to our comments. We would be happy to work with WDNR to address these comments in the final 2016 303(d) list.

Sincerely

Kris W. Sivertson

[Signature]

President

Attachment(s)

Upper Couderay River Watershed flow map
LCO Hypolimnion Dissolved Oxygen
Assessment of Lac Courte Oreilles applying the 2016 WisCALM Dissolved Oxygen Impairment Indicator for Two-Story Lakes

Dissolved oxygen data collected and provided by the LCO Conservation Department and the Courte Oreilles Lake Association

Hypolimnion determined as the lower layer of the lake, bounded above by the profile interval with the highest rate of change in temperature (degrees F/unit depth) for ice-free periods when monitoring was conducted.

Percent of Individual Measurements in Hypolimnion < 6 mg/L

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<td>LCO-3 (Central Basin)</td>
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<td>LCO-4 (East Basin)</td>
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Percent of Hypolimnion Average Dissolved Oxygen < 6 mg/L

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To Whom It May Concern—

We’d like to submit brief comments in support of the proposed listings for chloride for Ulao and Lilly Creeks. Our citizen monitoring of chloride support these proposed listings. We are also concerned about the Little Menomonee River, which was very close to exceeding chronic criteria for chloride last year. We will continue to monitor that creek this year, as well as expand testing to other small creeks in the Milwaukee River Basin.

We also support the proposed listing of Grantosa Creek for phosphorus in 2016. Likewise, we were supportive of the extensive listings in 2014 that covered several creeks in our Basin that are impaired, based on citizen monitoring of phosphorus that we have been conducting since 2011 for this parameter.

We question delisting of phosphorus for Underwood Creek from the mouth to the South Branch. That seems suspect, and we don’t understand the criteria by which it is being delisted. Is it due to the new WisCALM guidance that emphasizes confidence intervals? Our monitoring at Gravel Sholes Park on Underwood Creek has shown that we have had several exceedances in the last two years [standard is 0.075 mg/L]:

<table>
<thead>
<tr>
<th>Total Phosphorus</th>
<th>SWIMS</th>
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</thead>
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<tr>
<td>10031613</td>
<td>Underwood Creek at Gravel Sholes Park</td>
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<tr>
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<td>Our samples exceed standard for 06/26/2014 (0.174) and 5/31/2015 (0.0782)</td>
</tr>
</tbody>
</table>

Thank you for your consideration of these comments!

Best,

Cheryl Nenn
Riverkeeper
Milwaukee Riverkeeper
1845 N Farwell Avenue, Suite 100
Milwaukee, WI 53202
Direct: 414-287-0207 ext. 2
Main: 414-287-0207
Like us on Facebook | Follow us on Twitter
Hello

I offer the following comments for the 2016 draft 303(d) list.

1. In reviewing the data used for assessing chloride impairments, a value of 359 mg/L was used instead of the criterion of 395 mg/L. This error results in listing waterbodies that do not meet WisCALM criteria.

2. Listing criteria in WisCALM for chlorides is the same for acute and chronic criteria. It requires only 2 values in 3 years. Chlorides is different than other “toxics” in that it is event driven with snowmelt and winter-time liquid precipitation. Alternative listing criteria should be developed in WisCALM, at a minimum for chronic criteria, that eliminates bias associated with event-based sampling, such as event sampling for chlorides following runoff events in winter. Simple event based sampling for runoff-driven toxics, especially for chronic criteria, is not an accurate representation of water quality conditions and an impairment.

Thanks

Brent

Brent A. Brown, P.E.
CH2M
135 S. 84th Street, Suite 400
Milwaukee, WI 53214
Direct Phone: 414.847.0393
Mobile: 414.559.1978
Direct Fax: 414.454.8876
Brent.Brown@ch2m.com
www.ch2m.com
Dear Mr. Larson,

On behalf of the Board of Directors of the Lower Sugar River Watershed Association, please find attached public comments in response to the publishing of the Wisconsin 2016 Impaired Waters Listing. We understand comments are due by November 25, 2015.

If it is possible, we look forward to discussing our interest in partnering to improve surface water quality in the Lower Sugar River Watershed, as well as in the entire Sugar River Basin.

Thank you for the opportunity to comment on the status of waters in our State and watershed.

Sincerely,

Susan M. Lehnhardt
President, Lower Sugar River Watershed Association
17921 Smith Road
Brookfield, WI 53520
608.897.8641 x20
susan@appliedeco.com
November 24, 2015

Aaron Larson  
Wisconsin Department of Natural Resources  
Water Evaluation Section (WY/3)  
P.O. Box 7921  
Madison, WI 53707  
DNRImpairedWaters@wisconsin.gov

Re Public Comment regarding 2016 Impaired Waters List Updates

Dear Mr. Larson,

On behalf of the Lower Sugar River Watershed Association (LSRWA) Board of Directors and members, I want to thank you for the opportunity to provide the following comments regarding the recent release of the 2016 listing of the Clean Waters Act Section 303(d) impaired waters for Wisconsin (WDNR 2015).

Of those new waterbodies, twelve stream listings are located in the Sugar River Basin in south-central Wisconsin. This brings the total listing of impaired waterbodies in our basin since 1998 to 28 named tributaries or Sugar River mainstem reaches, and one impoundment located on the Sugar River mainstem. By unit measure, these listings represent approximately 213 total river miles and 109 acres of impounded waters. We attach a table of these listings organized by county, which we have adapted from the information provided by the WDNR.

We understand that every two years Section 303(d) of the CWA requires states to publish a list of waterbodies that do not meet water quality standards and why. The majority of those listed in 2016 either exceed total phosphorus criteria or have poor biological condition. Over time, streams improved through implementation of Total Maximum Daily Load (TMDL) limits, watershed plans and other projects are proposed for delisting. Currently, none of the waterbodies listed in the Sugar River Basin have been proposed for delisting, and only five of the 29 waterbodies have an approved TMDLs, with the potential for positively impacting 43 miles or 20% of the approximately 213 miles of impaired stream reaches.

In keeping with the State’s new prioritization goal (WDNR and WQ/WMB 2015), the LSRWA is eager to contribute as a partner in advancing the next steps of the Impaired Waters process, which we understand may involve developing a TMDL for each water...
body and undertaking watershed planning and implementation for these waterbodies to remove them from the list over time. It is also our understanding that, due to limited resources, initiating this process across the various geographies of the state requires prioritization based on a number of criteria, among those 1) available willing partners, 2) value of the surface water resource, and 3) risk of further or imminent deterioration due to development and land use pressures.

We offer the following discussion to address each of these criteria, to make the case that the Lower Sugar River and the Sugar River drainage as a whole should be prioritized for the next steps in the process for addressing the impaired waters of Wisconsin.

**LSRWA is a willing partner:**

The Lower Sugar River Watershed Association is a not-for-profit volunteer conservation organization initiated in 2010 to respond to growing public concern for water quality in the 300-square-mile Lower Sugar River Watershed (LSRW), a significant portion of which encompasses the southeastern corner of Green County, as well as parts of Rock County and neighboring Stephenson and Winnebago Counties in Illinois. Eighty percent of the land base in the LSRW is agricultural, largely in row crops. Outside of the small developed areas represented by smaller villages, the remaining 20% of non-agricultural land is comprised of forest, wetlands, grass and shrublands on private lands and protected in publicly-owned management areas.

For the past five years, LSRWA has collaborated with the Upper Sugar River Watershed Association (established in 2000) and many other public and private partners to raise awareness of the problem of impaired waters, and through citizen science education and open public forums, we have worked to empower our community with experience and knowledge to care for and enjoy our water resources. We have trained over one hundred adult and student volunteers to monitor conditions at more than 400 stream crossings in our watershed, and worked with the Wisconsin Department of Natural Resources and UW-Extension citizen-based monitoring program (WAV) to sample stream health and phosphorus levels at key locations to contribute to identifying and designating Clean Water Act Section 303(d) impaired streams and other water bodies in our basin. Our commitment to the watershed community is based in our belief that we all have a stake in clean water. We also believe that solving our problem of water quality will be achieved by bringing people together in an open forum to find the most durable and lasting solutions.

**Value of the Sugar River Resource:**

The Sugar River, and particularly the Lower Sugar River, includes sensitive natural resource assets and conservation investments of state and national importance which provide valuable ecosystem services and contribute to local ecotourism and recreation economies, including one of the largest floodplain complexes in southern Wisconsin and northern Illinois. When combined with bordering grassland buffers protected by easements, these properties exceed 7,000 acres of conservation lands managed for wildlife habitat, public recreation and hunting, and water quality, providing our area with significant nature-based recreational opportunities and ecotourism dollars for the local economy. These assets also protect significant natural capital important to the protection of biological diversity and multiple ecosystem services that provide clean air, water, flood protection, and more.

*We all have a stake in clean water!*
In Wisconsin, the state-owned Avon Bottoms Wildlife Area and contiguous State Natural Areas (Avon Bottoms SNA and Swenson Wet Prairie SNA) are identified as a Conservation Opportunity Area of state significance for the conservation of floodplain forest communities in Wisconsin’s Wildlife Action Plan (WDNR 2008). These properties manage for and protect multiple unique habitat types and 46 animal species of Greatest Conservation Need that are rare or declining in the state, including state threatened and endangered species. The Sugar River and its associated riparian natural communities are recognized by the State as one of the most important and biologically diverse river systems in Wisconsin, featuring more than 50 species of fishes (WDNR-BNHC 2013). The Wisconsin Wetland Association recognizes Avon Bottoms as a State Wetland Gem, and the Audubon Society and the State recognize it as an Important Bird Area for both forest and grassland birds. In 2001, The Nature Conservancy recognized this area in their conservation plan as important for protecting habitats of the Prairie-Forest Border Ecoregion.

Wisconsin recently conducted a master planning process for its properties in the Sugar River Planning Group, which includes the Avon Bottoms complex (WDNR 2013). In their report, the State reiterates the statewide importance of these properties as a refuge for diverse native flora and fauna, high quality natural communities, and a robust fishery, providing for public hunting, fishing, trapping, birding, paddling and other passive outdoor recreation activities. Among the identified major threats to the ecological integrity of these properties are habitat degradation and loss of species diversity due to proliferation of invasive species, pollution from sedimentation and nutrient enrichment, changes in surface and groundwater systems, habitat fragmentation, and long-term effects from climate change.

**Imminent Risk to the Resource:**

The Sugar River basin, particularly the Lower Sugar River basin, over the past decade has come under increasing pressure from industrial scale agriculture including Concentrated Animal Feeding Operations or CAFOs, as well as increased nutrient inputs due to widespread conversion of CRP lands for corn production. Most recently, a shift from smaller scale CAFOs to mega-sized operations has occurred with proposed dairies that would manage in excess of 5,000 animals and produce as much as 500,000 pounds of manure daily. Such operations would also draw as much as 230,000 gallons of water a day from high-capacity wells. Without effective watershed planning and implementation of water resource protections, such land management trends place excessive negative pressure on natural resources, as well as on human health and safety, and quality of life in our watershed. Risk management will be complicated by climate change scenarios anticipated in our region (WICCI 2011; UW-Extension 2009).

Thank you for considering our comments. We are eager to contribute in any way we can to achieve restoration and protection of all waterbodies in the Sugar River Watershed.

Sincerely,
Lower Sugar River Watershed Association

Susan Lehnhardt
Board Member and President

*We all have a stake in clean water!*
We all have a stake in clean water!

References


United State Environmental Protection Agency. http://www2.epa.gov/cleanwaterrule/clean-water-rule-factsheets


Wisconsin Department of Natural Resources. 2005. TMDLs for Sediment Impaired Streams in the Sugar-Pecatonica River Basin (June 28, 2005).

Wisconsin Department of Natural Resources. 2013. Regional and Property Analysis Sugar River Planning Group. PUB-LF 078.

Wisconsin Department of Natural Resources, Bureau of Natural Heritage Conservation. 2013. Rapid Ecological Assessment for Sugar River Planning Group—A Rapid Ecological Assessment Focusing on Rare Plants, Selected Rare Animals, and High-quality Natural Communities. PUB-NH-846 2013.


We all have a stake in clean water!
<table>
<thead>
<tr>
<th>Official Waterbody Name</th>
<th>Local Waterbody Name</th>
<th>Counties</th>
<th>Water Type</th>
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| SUGAR RIVER WATERSHED IMPAIRED WATERS LISTING 1998 - 2016 |

Data adapted from the Wisconsin Department of Natural Resources Impaired Waters Listings website: [http://dnr.wi.gov/topic/impairedwaters/](http://dnr.wi.gov/topic/impairedwaters/)
1. Wisconsin 2016 Consolidated Assessment and Listing Methodology for CWA Section 303(d) and 305(b) Integrated Reporting [hereafter WisCALM], Section 6.0, “Public Health and Welfare Uses applicable to all waterbody types,” page 52: We recommend clarifying the phrase “unreasonable incremental risk of cancer” by adding the following parenthetical statement: “(no more than one additional case of cancer in a population of one hundred thousand).” We recommend that the same clarification be added to clarify the term as used in the first paragraph on Page 55.

2. WisCALM, Section 6.3, “Public Water Supply Use Assessment,” “Cyanobacteria,” page 54: Now that EPA has developed Health Advisories for Microcystins and Cylindrospermopsin, we recommend that the WDNR consider updating its previous use of World Health Organization (WHO) guidelines to incorporate EPA’s Health Advisory values and to determine if these represent a better indicator than the single WHO value for Microcystin LR.

3. WisCALM, Section 4.2, “Lake General Condition Assessment,” page 17: In its February 17, 2015 comment on the draft 2016 WisCALM, EPA raised concerns regarding discrepancies between phosphorus assessment thresholds for lakes and WDNR’s total phosphorous water quality criteria (E-mail from Donna Keclik, EPA to Aaron Larson, WDNR, February 17, 2015, Enclosure, “Comments on Wisconsin’s Draft 2016 WisCALM document Public Notice date December 2014,” Section III.5, p. 1 of EPA’s comments.) In response to this concern raised by EPA, WDNR committed to evaluating its application of the Carlson Trophic State Index (TSI) thresholds for consistency with the total phosphorous criteria. EPA would like to continue working with WDNR on this issue and would like a chance to review the updated draft methodology prior to finalization.

4. WisCALM, Section 4.4, “Lake Impairment Assessment: Fish & Aquatic Life (FAL) Uses,” Table 5, “Fish & Aquatic Life Use Impairment Thresholds for Lake Natural Communities,” page 33: In its February 17, 2015 comment letter on the draft 2016 WisCALM, comment Section III.9, p. 1 EPA noted that the values in the table did not appear to be consistent with the thresholds identified as signaling impairment in the Technical Support Document. WDNR committed to reevaluating the FAL use thresholds and to provide more information in future updates to the WisCALM. EPA would like to continue working with WDNR on this issue and would like a chance to review the updated draft methodology prior to finalization.

5. Region 5 will continue to work with WDNR to address the issues raised in past comments on the listing methodology regarding biological thresholds that are used in the assessment process.

6. WisCALM: page 51, Table 15, “Fish and Aquatic Life Use Aquatic Toxicity Impairment Thresholds for Rivers/Streams”:
a. This table should also include Selenium. Please include this as one of the parameters measured.

b. It appears that criteria listed in the table that had “chlor” as their root were replaced with chlorophyll and resulted in Chlorophylloride, Pentachlorophyllorophenol, Chlorophyllorine, and Chlorophyllorpyrifos.

7. EPA has provided additional questions regarding specific waters in our attached list, showing comments and concerns regarding these waters.
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<th>Local Waterbody Name</th>
<th>Counties</th>
<th>Water Type</th>
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<th>Date Listed</th>
<th>Source Category</th>
<th>Pollutant</th>
<th>Impairment Indicator</th>
<th>Status</th>
<th>TMDL Priority</th>
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</tr>
<tr>
<td>Invalid WBIC. Not in ROW</td>
<td>Mendota County Park Beach</td>
<td>Dane</td>
<td>INLAND BEACH</td>
<td>5475513</td>
<td>-1</td>
<td>1</td>
<td>0</td>
<td>0.15</td>
<td>MILES</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>04/01/2016 NPS</td>
<td>E. coli</td>
<td>Recreation al Restrictions - Pathogens</td>
<td>303d Listed Low</td>
<td>TMDL Needed (SA)</td>
<td>Correction needs to be made in official Waterbody name column</td>
<td>On 2014 list. However this is not on 2016 or indicated proposed for delisting or deletion. And does not indicate that there is a TMDL developed</td>
<td></td>
</tr>
<tr>
<td>Fifth Lake</td>
<td>Oneida</td>
<td>LAKE</td>
<td>128111</td>
<td>1571100</td>
<td>1</td>
<td>240</td>
<td>Acres</td>
<td>4044.83</td>
<td>ACRES</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>04/01/2014 Atm. Dep.</td>
<td>Mercury</td>
<td>Contaminated Fish Tissue</td>
<td>303d Listed Low</td>
<td>TMDL Needed (SA)</td>
<td>Natural Conditions (SC)</td>
<td>this is listed twice for PCB should one be listed for TP</td>
<td></td>
</tr>
<tr>
<td>Green Lake</td>
<td>Big Green</td>
<td>Green Lake</td>
<td>LAKE</td>
<td>11023</td>
<td>146100</td>
<td>1</td>
<td>7485.65</td>
<td>ACRES</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>04/01/2014 NPS</td>
<td>PCBs</td>
<td>Contaminated Fish Tissue</td>
<td>303d Listed TMDL Development</td>
<td>High</td>
<td>On 2016 impaired waters list also on the deletions tab. Where does the water belong?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lake Du Bay</td>
<td>Lake DuBay</td>
<td>Marathon, Portage</td>
<td>IMPOUNDMENT</td>
<td>3900358</td>
<td>1412200</td>
<td>1</td>
<td>4044.83</td>
<td>ACRES</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>04/01/2014 NPS</td>
<td>Unknown Pollutant</td>
<td>Low DO</td>
<td>TMDL Needed (SA)</td>
<td>Low</td>
<td>On 2014 was listed twice one listing for TP and excess Algae. The second listing was for an unknown pollutant and Eutrophication. Should this also be listed for excessi Algae?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lake Redstone</td>
<td>Redstone Lake</td>
<td>Oconto</td>
<td>LAKE</td>
<td>13542</td>
<td>1280400</td>
<td>1</td>
<td>612</td>
<td>ACRES</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>04/01/2014 NPS</td>
<td>Total Phosphorus</td>
<td>Eutrophication</td>
<td>TMDL Development</td>
<td>High</td>
<td>Should this be an addition? List for Mercury - FCA and TP with algal growth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Round Lake</td>
<td>Round Lake</td>
<td>Iron</td>
<td>LAKE</td>
<td>16667</td>
<td>2640100</td>
<td>1</td>
<td>204</td>
<td>ACRES</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>04/01/2014 NPS</td>
<td>Unknown Pollutant</td>
<td>Eutrophication</td>
<td>303d Listed Low</td>
<td>TMDL Needed (SA)</td>
<td>Should this be an addition? List for Mercury - FCA and TP with algal growth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lake Wingra</td>
<td>Lake Wingra</td>
<td>Dane</td>
<td>LAKE</td>
<td>11667</td>
<td>805000</td>
<td>1</td>
<td>345</td>
<td>ACRES</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>04/01/2012 PS/NPS</td>
<td>Total Phosphorus</td>
<td>Impairment Unknown</td>
<td>303d Listed Low</td>
<td>Phosphorus Listed (SP)</td>
<td>Should this be addition since this segment is already listed for PCB's?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lake Poygan</td>
<td>Poygan Lake</td>
<td>Barron</td>
<td>LAKE</td>
<td>18137</td>
<td>242800</td>
<td>1</td>
<td>14014.21</td>
<td>ACRES</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>04/01/1998 NPS</td>
<td>Contaminated Fish Tissue</td>
<td>TMDL Development</td>
<td>High</td>
<td>Listed twice for PCB's should this also include a listing for TP?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Root River</td>
<td>Root River</td>
<td>Racine, Milwaukee</td>
<td>RIVER</td>
<td>4714703</td>
<td>2900</td>
<td>4</td>
<td>20.48</td>
<td>25.8</td>
<td>MILES</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>04/01/1998 PS/NPS</td>
<td>Total Phosphorus</td>
<td>Low DO</td>
<td>TMDL Development</td>
<td>Medium</td>
<td>Not on 2014 list for this segment is this an addition or proposed listing?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Root River</td>
<td>Root River</td>
<td>Racine</td>
<td>RIVER</td>
<td>4714703</td>
<td>2900</td>
<td>4</td>
<td>20.48</td>
<td>25.8</td>
<td>MILES</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>04/01/1998 PS/NPS</td>
<td>Total Phosphorus</td>
<td>Low DO</td>
<td>TMDL Development</td>
<td>Medium</td>
<td>Not on 2014 list for this segment is this an addition or proposed listing?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rush Creek</td>
<td>Rush Creek</td>
<td>Taylor</td>
<td>RIVER</td>
<td>13342</td>
<td>1240100</td>
<td>1</td>
<td>0</td>
<td>6.02</td>
<td>MILES</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>04/01/1998 NPS</td>
<td>Sediment/T Total Suspended Solids</td>
<td>Degraded Habitat</td>
<td>303d Listed Medium</td>
<td>TMDL Needed (SA)</td>
<td>On impaired waters list and delisting sheet where should this be placed?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invalid WBIC. Not in ROW</td>
<td>Unnamed (Trib To Crawford Creek)</td>
<td>Douglas</td>
<td>RIVER</td>
<td>891570</td>
<td>0</td>
<td>1</td>
<td>MILES</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>04/01/1998 Contam. Sed.</td>
<td>Chronic Aquatic Toxicity</td>
<td>303d Listed Low</td>
<td>TMDL Needed (SA)</td>
<td>Correction needs to be made in official Waterbody name column</td>
<td>Should this be placed?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wisconsin River</td>
<td>Wisconsin River (At Castle Rock Lake)</td>
<td>Adams, Juneau</td>
<td>RIVER</td>
<td>885667</td>
<td>1179900</td>
<td>7</td>
<td>158.68</td>
<td>173.27</td>
<td>14.59</td>
<td>MILES</td>
<td>Category 5A</td>
<td>Category 5A</td>
<td>04/01/1998 Contam. Sed.</td>
<td>Dioxin</td>
<td>303d Listed Low</td>
<td>TMDL Needed (SA)</td>
<td>On impaired waters list and deletion sheet where should this be place?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>