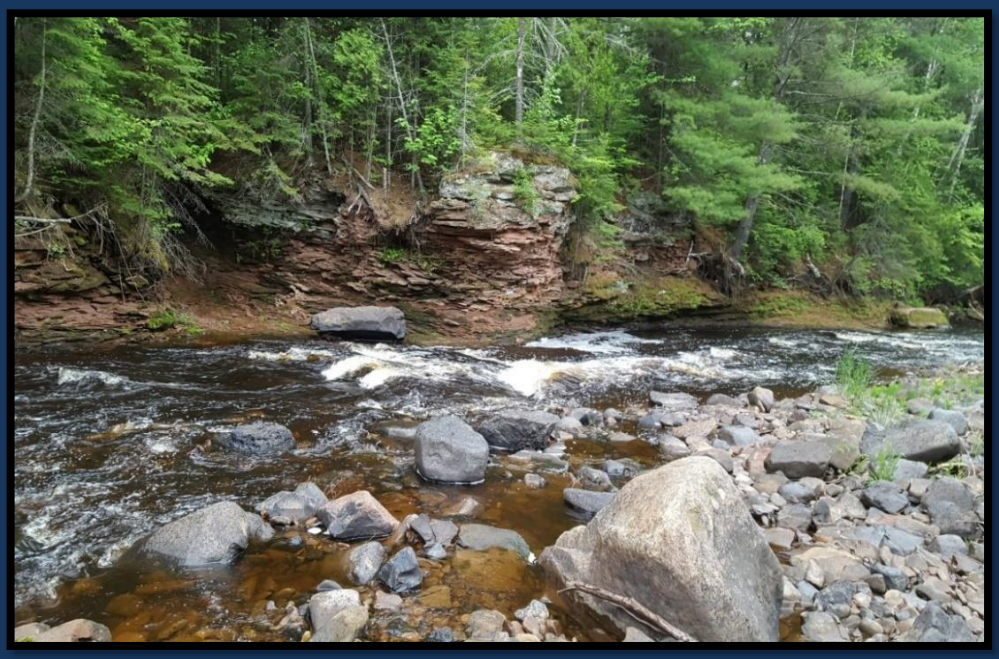
Black River Targeted Watershed Assessment: A Water Quality Report to Protect Wisconsin Watersheds, 2020

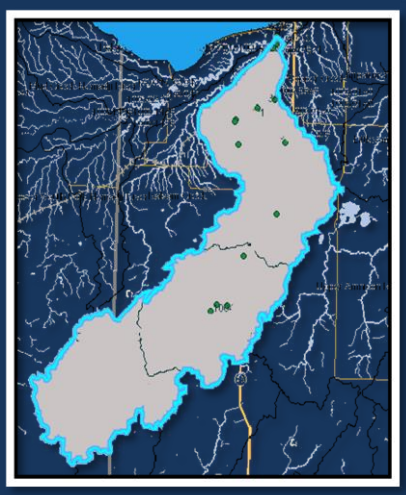
Black and Upper Nemadji River Watershed LS02

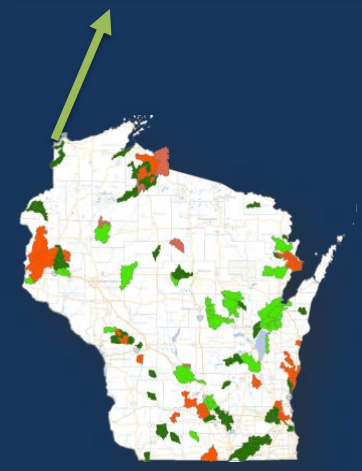
A Water Quality Monitoring Report created by the Bureau of Water Quality in support of the Clean Water Act.

HUC 12 - 040103010301
HUC 12 - 040103010302
HUC 12 - 040103010303



Black River at Manitou Valley Site
Photo by Craig Roesler, North District Water Quality Biologist
Department of Natural Resources





To learn more about this area, see ***Wisconsin Targeted Watershed Assessments (TWA) Online****!*

Find more about these waters, watersheds and projects on *Explore Wisconsin's Waters Online !*

EGAD # 3200-2019-02
Water Quality Bureau
Wisconsin DNR

Contents

Tables

Figures

Targeted Watershed Assessment Study Summary

The Black River watershed is in western Douglas County, Wisconsin (Figure 1). A Targeted Watershed Assessment monitoring project was conducted there to analyze current conditions and to make recommendations for future management actions. Most monitoring was conducted during 2016. Previous monitoring data collected from several sites between 2003 and 2014 was also compiled and reviewed. Monitoring included fish surveys, fish habitat evaluations, macroinvertebrate sampling, water quality monitoring, and continuous temperature monitoring. The extent of monitoring varied between sites.

Figure 1. Black River Watershed Location

About the Watershed

The Black River watershed is largely undeveloped (woodland and wetland comprise approximately 94% of the land area) (Figures 3 and 4), which generally reduces the potential for runoff and erosion. There are two small lakes in the watershed, *Black Lake and Interfalls Lake*. There are also two waterfalls. Big Manitou Falls is the highest waterfall in Wisconsin with a height of 165 feet. Little Manitou Falls has a height of 30 feet. Big Manitou Falls, Little Manitou Falls, and Interfalls Lake are located in Pattison State Park. The park also has a campground, a swimming beach, scenic falls overlooks, and hiking trails.

Biological Communities and Water Quality

There is a history of trout and salmon stocking in the Black River, which is a class III trout stream. Class III trout streams are marginal trout habitat with no natural reproduction and no annual carryover of trout. Brown and brook trout were stocked upstream of the falls. Rainbow trout and chinook salmon were stocked downstream of the falls. Stocking was discontinued mostly due to under-utilization and poor returns. There is no substantial cool or warm water fishery present in the Black River. Rock Creek has a 2.4-mile segment of class I trout water, with brook trout present. Miller Creek has a 3-mile segment of class II trout water, also with brook trout present. Fish surveys found high quality headwater forage fish communities present upstream of the falls. Downstream of the falls, fish surveys found high quality mainstem forage fish communities with a moderate presence of game fish. Fish surveys at Rock and Miller Creek mostly found good quality coldwater and cool transition headwater natural communities, with brook trout present.

Brown Trout, Drawing by Beth Bier, Wisconsin DNR.

Qualitative fish habitat ratings for seven sites ranged from excellent to fair. The median habitat rating was good. High quality macroinvertebrate communities are present. Ten of the twelve macroinvertebrate IBI ratings were excellent and two were good, indicating the presence of good water quality and habitat. Hilsenhoff biotic index ratings ranged from good to excellent, indicating dissolved oxygen availability is not a problem at the sampled sites. Species richness values are high and range from 22 to 50 species per site.

Water quality was good at monitored sites. Total phosphorus concentrations are lower than the WI stream standard of 75 ug/l. Measured dissolved oxygen concentrations were all above the WI stream standard of 5 mg/l. Total suspended solids concentrations were low at most sites but were high on two dates at the site near the stream mouth. That site is influenced by Lake Superior Clay Plain soils, which commonly have unstable stream banks.

Continuous temperature monitoring showed all Black River sites exceeded the mean daily cold water/cool water threshold (69.3oF) on numerous days in the summer. Five of the six Black River sites also exceeded the mean daily cool water/warm water threshold (76.3oF) on one or more summer days. The warmer temperatures observed support the classification of the Black River as a class III trout water, which has no natural reproduction or annual carryover of stocked fish.

Recommendations

- Efforts should be made to protect the high quality of the Black River Watershed's water resources. Designation of the Black River as an Outstanding Resource Water should be explored. Other protection measures also need to be identified and explored.

Wisconsin Water Quality Monitoring and Planning

This Water Quality Management Plan was created under the state's Water Resources Planning and Monitoring Programs. The plan reflects water quality program priorities and Water Resources Monitoring Strategy 2015-2020 and fulfills Wisconsin's Areawide Water Quality Management Plan requirements under Section 208 of the Clean Water Act. Condition information and resource management recommendations support and guide program priorities for the planning area.

This WQM Plan is approved by the Wisconsin DNR and is a formal update to *Lake Superior Basin Areawide Water Quality Management Plan* and Wisconsin's statewide Areawide Water Quality Management Plan (AWQM Plan). This plan will be forwarded to USEPA for certification as a formal update to Wisconsin's AWQM Plan.

Craig Roesler, North District Water Quality Biologist
Tom Aartila, North District Water Quality Field Supervisor
Greg Searle, Water Quality Field Operations Director
Timothy Asplund, Water Quality Monitoring Section Chief

Basin/Watershed Partners

Douglas County Land and Water Conservation Department

Report Acknowledgements

- Craig Roesler, Primary Author and Investigator, North District, Wisconsin DNR
- Lisa Kosmond Helmuth, Contributing Author & Program Coordinator, Water Quality Bureau, Wisconsin DNR

Wisconsin Department of Natural Resources
101 S. Webster Street • PO Box 7921 •
Madison, Wisconsin 53707-7921 608-266-2621

EGAD #3200-2019-02

Abbreviations

AEL: Aquatic Entomology Laboratory at UW – Stevens Point: the primary laboratory for analysis of macroinvertebrate taxonomy in the State of Wisconsin.

BMP: **Best Management Practice**. A land management practice used to prevent or reduce nonpoint source pollution such as runoff, total suspended solids, or excess nutrients.

DATCP: Wisconsin Department of Agriculture, Trade and Consumer Protection – the state agency in partnership with DNR responsible for a variety of land and water related programs.

DNR: **Department of Natural Resources.** Wisconsin Department of Natural Resources is an agency of the State of Wisconsin created to preserve, protect, manage, and support natural resources.

END: Endangered Species - Wisconsin species designated as rare or unique due to proximity to the farthest extent of their natural range or due to anthropogenic deleterious impacts on the landscape or both.

ERW: Exceptional Resource Water- Wisconsin's designation under state water quality standards to waters with exceptional quality and which may be provided a higher level of protection through various programs and processes.

FHMD: Fisheries and Habitat Management Database – or Fish Database – the state's repository for fish taxonomy and auto-calculated metrics involving fish assemblage condition and related.

FIBI: **Fish Index of biological integrity (Fish IBI).** An Index of Biological Integrity (IBI) is a scientific tool used to gauge water condition based on biological data. Results indicate condition and provide insight into potential degradation sources. In Wisconsin, specific fish IBI tools are developed for specific natural communities. Biologists review and confirm the natural community to use the correct fish IBI tool.

HUC: **Hydrologic Unit Code.** A HUC is a code that represents nested hydrologic watersheds delineated by multiple agencies at the federal and state level including USGS, USFS, and Wisconsin DNR.

MIBI: **Macroinvertebrate Index of biological integrity.** In Wisconsin, the MIBI, or macroinvertebrate Index of biological integrity, was developed to assess macroinvertebrate community condition.

Monitoring Seq. No. Monitoring Sequence Number refers to a unique identification code generated by the Surface Water Integrated Monitoring System (SWIMS), which holds much of the state's water quality monitoring data.

MDM: Maximum Daily Averages – maximum daily average is a calculated metric that may be used for temperature, dissolved oxygen and related chemistry parameters to characterize water condition.

NC: Natural Community. A system of categorizing water based on inherent physical, hydrologic, and biological components. Streams and Lakes have uniquely derived systems that result in specific natural community designations for each lake and river segment in the state. These designations dictate the appropriate assessment tools which improves the condition result, reflecting detailed nuances reflecting the modeling and analysis work foundational to the assessment systems.

mg/L: milligrams per liter - a volumetric measure typically used in chemistry analysis characterizations.

NOAA: National Oceanic and Atmospheric Administration – a federal agency responsible for water / aquatic related activities involve the open waters, seas and Great Lakes.

ND: No detection – a term used typically in analytical settings to identify when a parameter or chemical constituent was not present at levels higher than the limit of detection.

NRCS: USDA Natural Resources Conservation Service - the federal agency providing local support and land management outreach work with landowners and partners such as state agencies.

ORW: Outstanding Resource Water- Wisconsin's designation under state water quality standards to waters with outstanding quality and which may be provided a higher level of protection through various programs and processes.

SC: Species of Special Concern- species designated as special concern due to proximity to the farthest extent of their natural range or due to anthropogenic deleterious impacts on the landscape, or both.

SWIMS ID. Surface Water Integrated Monitoring System (SWIMS) identification number is the unique monitoring station identification number for the location of monitoring data.

TALU: Tiered Aquatic Life Use – a methodology for differentiating aquatic health condition based on physical, hydrologic and anthropomorphic variables. In Wisconsin the TALU approach differentiates a condition potential of "excellent", "good", "fair", "modified".

TDP: Total Dissolved Phosphorus – an analyzed chemistry parameter collected in aquatic systems positively correlated with excess productivity and eutrophication in Wisconsin waters.

TMDL: Total Maximum Daily Load – a technical report required for impaired waters Clean Water Act. TMDLs identify sources, sinks and impairments associated with the pollutant causing documented impairments.

TP: Total Phosphorus - an analyzed chemical parameter collected in aquatic systems frequently positively correlated with excess productivity and eutrophication in many of Wisconsin's waters.

TWA: **Targeted Watershed Assessment.** A monitoring study design centered on catchments or watersheds that uses a blend of geometric study design and targeted site selection to gather baseline data and additional collection work for unique and site-specific concerns for complex environmental questions including effectiveness monitoring of management actions, evaluation surveys for site specific criteria or permits, protection projects, and generalized watershed planning studies.

TSS: Total suspended solids – an analyzed physical parameter collected in aquatic systems that is frequently positively correlated with excess productivity, reduced water clarity, reduced dissolved oxygen and degraded biological communities.

WATERS ID. The Waterbody Assessment, Tracking, and Electronic Reporting System Identification Cod**e**. The WATERS ID is a unique numerical sequence number assigned by the WATERS system, also known as "Assessment Unit ID code." This code is used to identify unique stream segments or lakes assessed and stored in the WATERS system.

WBIC: Water Body Identification Code. WDNR's unique identification codes assigned to water features in the state. The lines and information allow the user to execute spatial and tabular queries about the data, make maps, and perform flow analysis and network traces.

WSLH: Wisconsin State Laboratory of Hygiene– the state's certified laboratory that provides a wide range of analytical services including toxicology, chemistry, and data sharing.

WQC: Water quality criteria – a component of Wisconsin's water quality standards that provide numerical endpoints for specific chemical, physical, and biological constituents.

Black River East of Foxboro Chaffey Rd

Water Quality Plan Goals

This plan identifies water quality conditions to improve and protect water quality in the Black River Watershed through a Targeted Watershed Assessment (TWA) monitoring project. The TWA project funded data collection including chemistry, biological (fish and macroinvertebrates) and habitat data. This plan presents results, identifies concerns, and presents recommendations to improve or protect water quality consistent with Clean Water Act guidelines and state water quality standards.

Resources Overview

Location, Size, Land Use & Population

Undeveloped land uses (woodland and wetland) comprise 94% of the Black River watershed (Figures 3 & 4) and this generally reduces the potential for runoff and erosion. As the charts below show, wetlands as a percentage of land use decreases from upper subwatershed to lower, while forest increases slightly and remains stable at approximately 65% of the overall watershed. Overall, the Lower watershed HUC is unique in the presence of agriculture, grassland, and urban land uses as a measurable percentage.

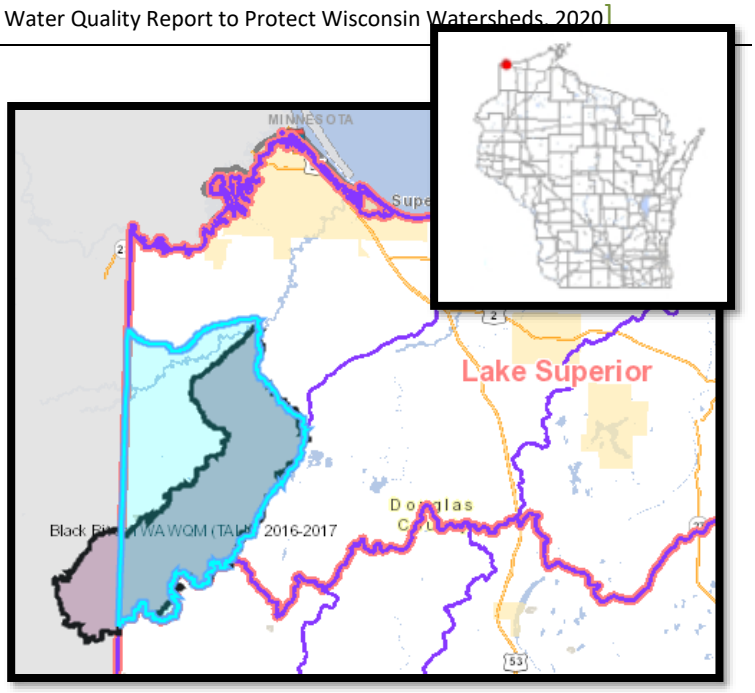
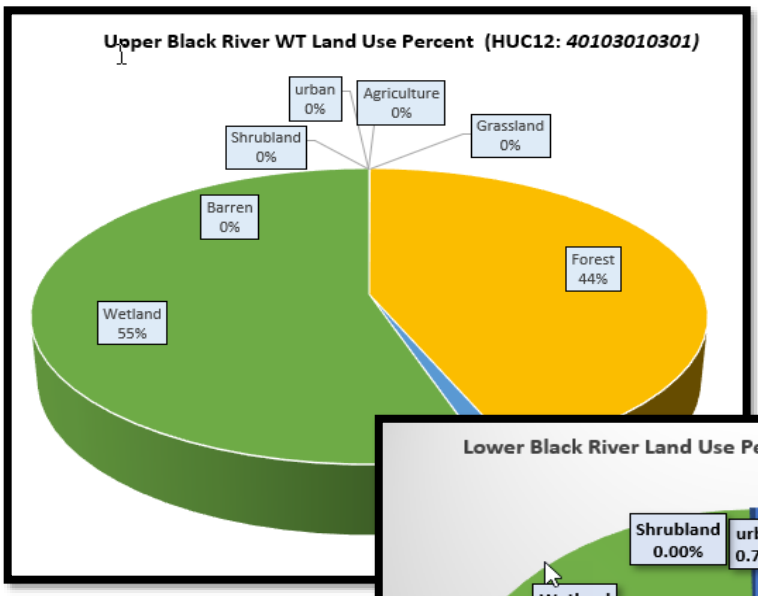
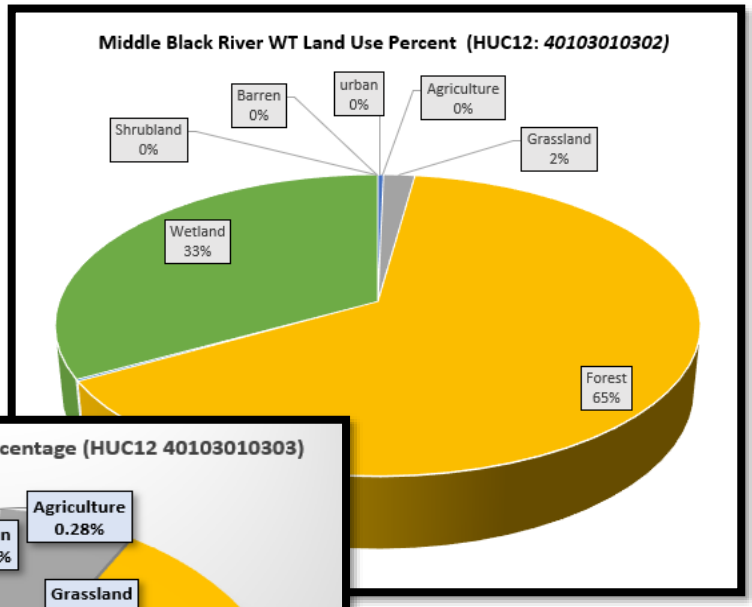
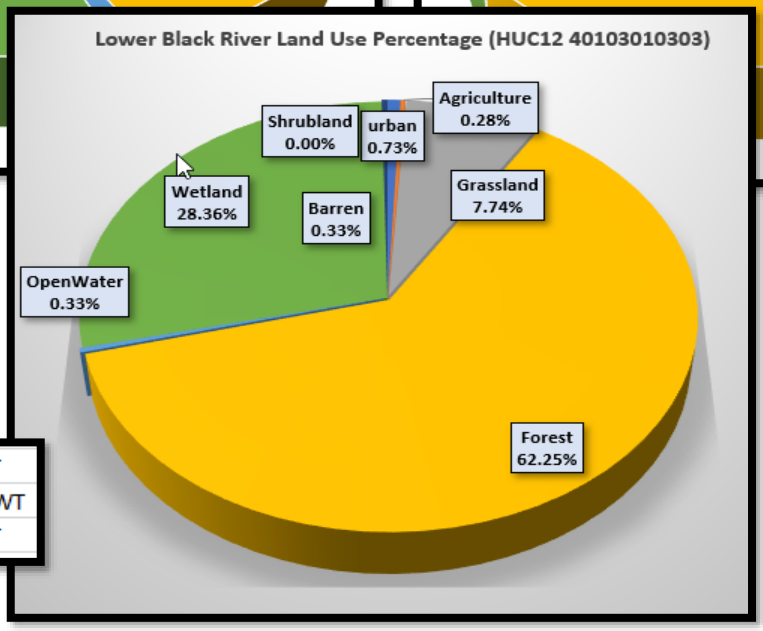


Figure 2. The location of the Black River Watershed (HUC12, black boundary) within the larger Black and Upper Nemadji River Watershed (LS02, blue boundary).

Figure 3. Upper, Middle and Lower Black River Land Use Percentages

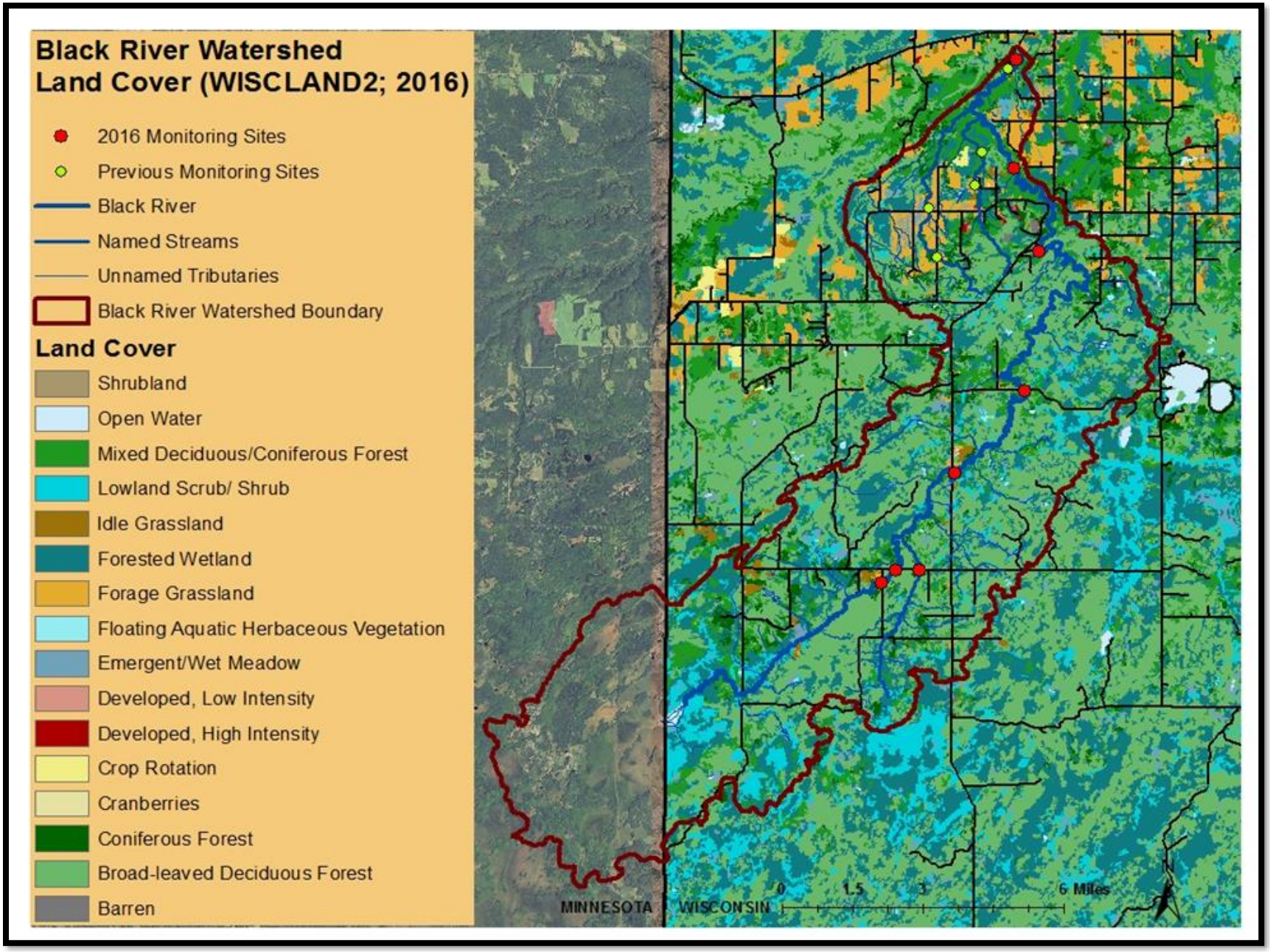






40103010301	Upper Black River WT
40103010302	Middle Blaqck River WT
40103010303	Lower Black River WT

Figure 4. Black River Watershed NLCD 2016 Land Cover Map



Ecological Landscapes

A portion of the Black River Watershed is in the Northwest Lowlands ecoregion (figure 5). This ecoregion has loamy soils with moderate runoff potential and abundant wetlands. Streams in this ecoregion tend to have low turbidity but are highly stained due to dissolved organic compounds provided by wetland drainage.

The downstream end of the watershed is in the Superior Coastal Plain where developed land uses are more prevalent. Clay rich soils in the Plain have high runoff potential and streambank erosion is a major source of suspended sediment and turbidity to streams located there. Staining is masked by the turbidity but is still present.

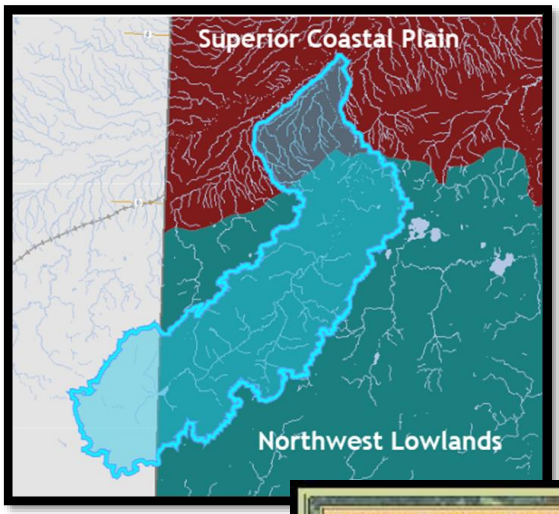


Figure 5. Black River Watershed and Wisconsin's Ecological Landscapes

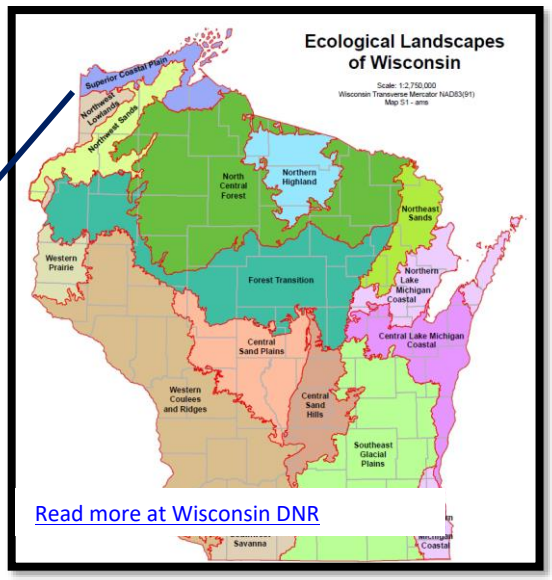
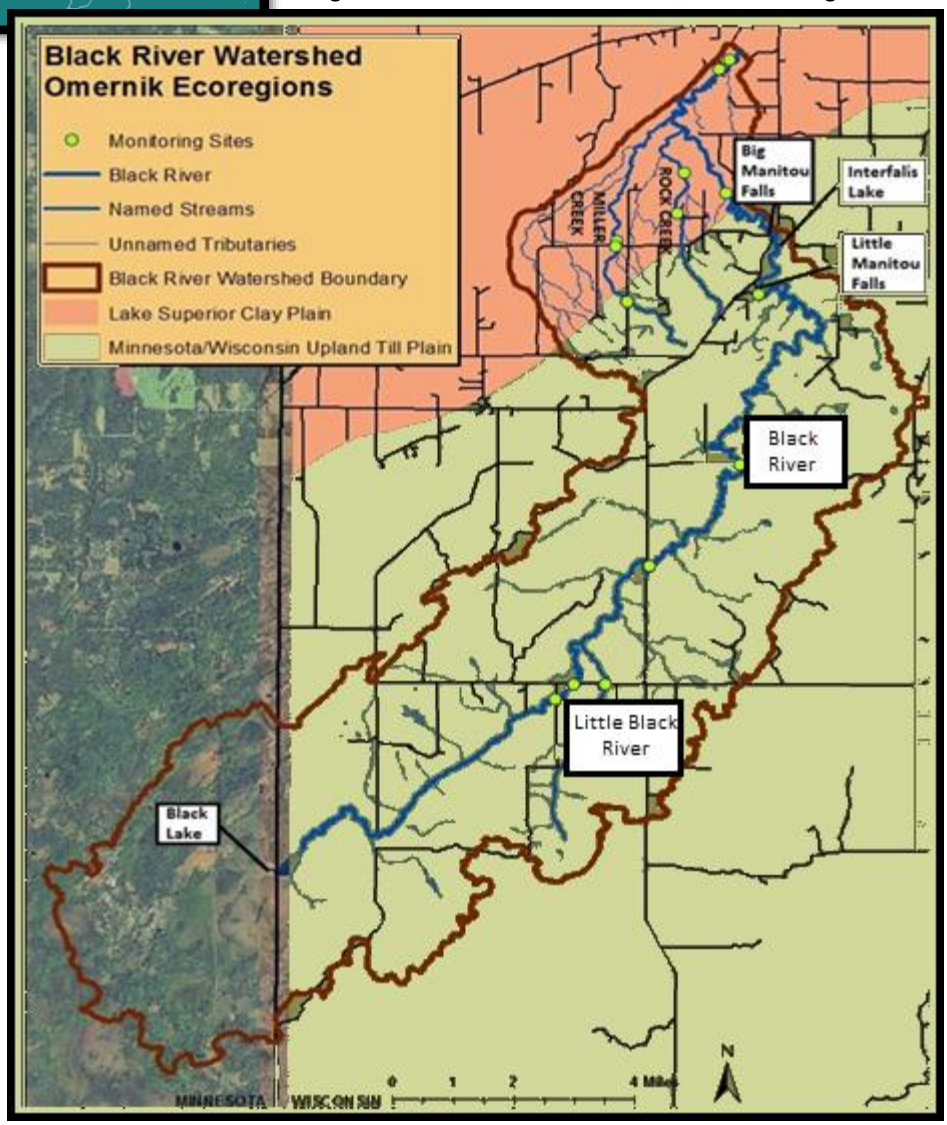


Figure 6. Black River Watershed and Omernik Ecoregions



Omernik Ecoregions

Streams segments in the Upland till Plain tend to have low turbidity but are highly stained due to dissolved organic compounds provided by wetland drainage. Stream segments in the Clay Plain tend to have high turbidity from suspended clay. Staining is masked by the turbidity but is still present.

There are two lakes in the Black River watershed (Figure 6). Black Lake (WBIC 2841200) is located near the headwaters of the Black River at the Wisconsin/Minnesota border. The lake is 80 acres with a maximum depth of 4 feet. Interfalls Lake (WBIC 2838000) is located in Pattison State Park, just upstream of Big Manitou Falls. The lake is 23 acres with a maximum depth of 13 feet. It is formed behind a dam with 11 feet of head located just upstream of the Falls. The dam failed during a June 2018 flood, but was rebuilt.

Big Manitou Falls is the highest waterfall in Wisconsin (165 feet). Little Manitou Falls is located upstream of Interfalls Lake and has a height of 30 feet (Figure 6).

Hydrology

Limited development in the upper watershed maintains the natural hydrology of the Black River System. Downstream areas have some development and related water quality impacts. However, in relative terms, the watershed's water quality conditions are excellent.

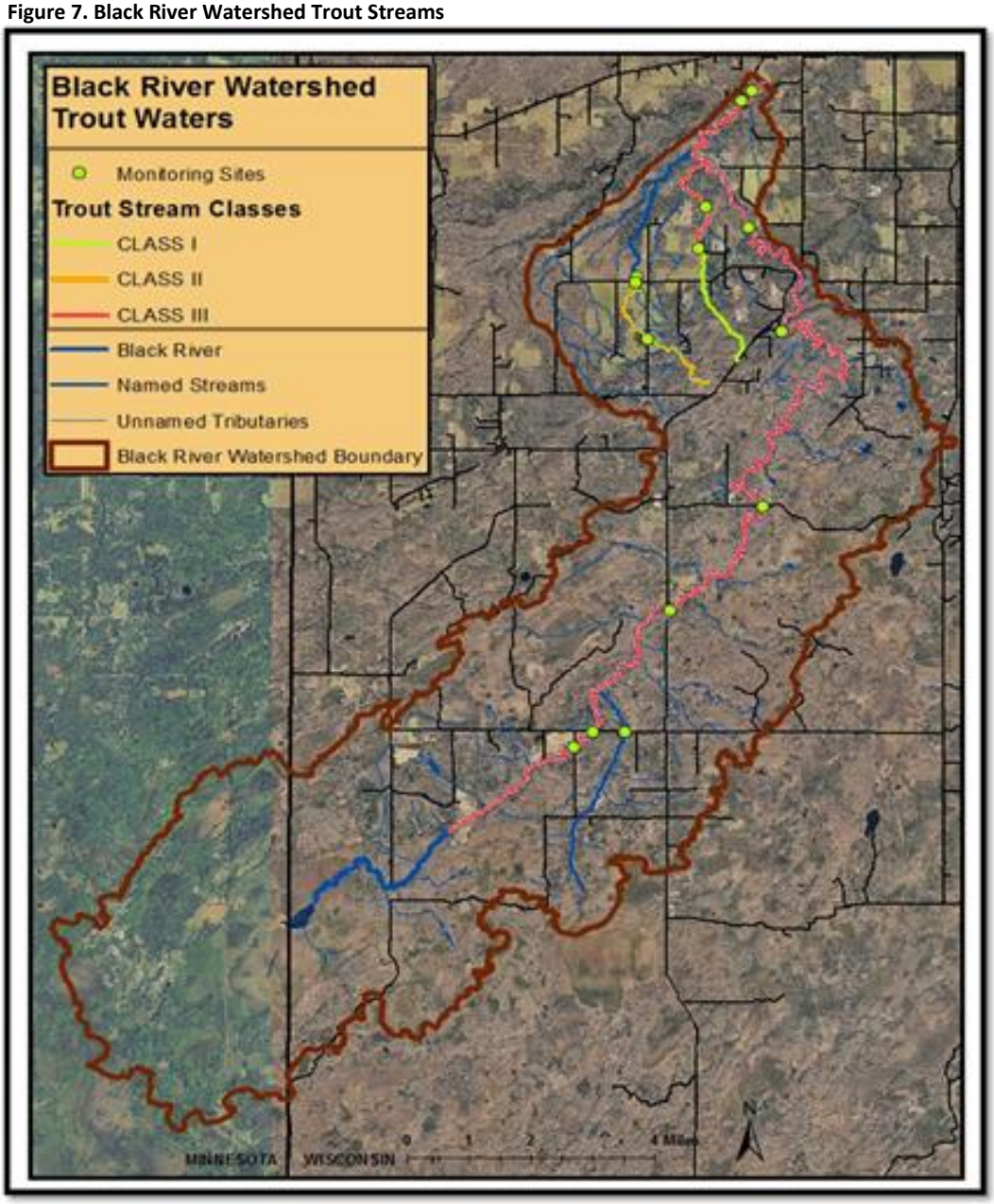
Soils

The clay-rich watershed soils toward the mouth of the river system results in flashy stream flows with very high flows during runoff events and very low baseflows.

Trout Waters

DNR classifies trout streams into three classes. Class I are naturally reproducing populations; class II are supplemented by stocking, and class III are exclusively supported by stocking. The lower 12 miles of the Black River is also identified as wadeable nursery waters for smallmouth bass. The segment of the Black River, below Big Manitou Falls is known to support burbot spawning during the winter (Figure 7).

Figure 7. Black River Watershed Trout Streams



Outstanding & Exceptional Resource Waters

Wisconsin has designated many of the state's highest quality waters as Outstanding Resource Waters (ORWs) or Exceptional Resource Waters (ERWs). Waters designated as ORW or ERW are surface waters which provide outstanding recreational opportunities, support valuable fisheries and wildlife habitat, have good water quality, and are not significantly impacted by human activities. ORW and ERW status identifies waters that the State of Wisconsin has determined warrant additional protection from the effects of pollution. There are no ORW waters in the Black River watershed. The Class I trout water segment of Rock Creek is the only ERW water in the watershed (Table 2).

Table 1 Black River Watershed Trout Waters

Water	WBIC	Start Mile	End Mile	Trout Class	O/ERW
Rock Creek	2837300	0	2.4	III	
Rock Creek	2837300	2.4	4.8	I	ERW
Miller Creek	2837000	3.5	6.5	II	
Black River	2836900	0	31.1	III	

Monitoring Project Study Summary

The Black River and Little Black River in Douglas County were monitored primarily to document their high quality. The watershed as a whole is 94.4% undeveloped. Pattison State Park with Pattison Falls -- Wisconsin's highest waterfall – is located on the river. Three sites on the Black River and one site on the Little Black River have excellent indices of biological integrity (IBI) for both fish and macroinvertebrate communities (Figure 9, Figure 11). These two waters appear to be excellent candidates for applying the proposed protection tier for tiered aquatic life uses (TALU). Tiered Aquatic Life Use is a methodology for differentiating aquatic health condition based on physical, hydrologic and anthropogenic variables. In Wisconsin the TALU approach differentiates a condition potential of "excellent", "good", "fair", and "modified". This study involves the following HUC12s: 040103010302, 040103010303, 040103010304.

Black R. Canoe Takeout Upstream Manitou Falls (Looking Upstream). Photo by Craig Roesler, Wisconsin DNR. 2016.

During this TWA study (and in prior studies) fish surveys found high quality headwater forage fish communities present upstream of the falls. Downstream of the falls, fish surveys found high quality mainstem forage fish communities with a moderate presence of game fish. Fish surveys at Rock and Miller Creek mostly found good quality coldwater and cool transition headwater natural communities, with brook trout present.

Qualitative fish habitat ratings for seven sites in the watershed ranged from excellent to fair (Figure 10). The median habitat rating was good. High quality macroinvertebrate communities are present. Ten of the twelve macroinvertebrate IBI ratings were excellent and two were good, indicating the presence of good water quality and habitat. Hilsenhoff biotic index ratings ranged from good to excellent, indicating dissolved oxygen availability is not a problem at the sampled sites. Species richness values are high, ranging from 22 to 50 species per site.

Water quality was good at monitored sites (Table 9). Total phosphorus concentrations are lower than the WI stream standard of 75 ug/l. Measured dissolved oxygen concentrations were all above the WI stream standard of 5 mg/l. Total suspended solids concentrations were low at most sites but were high on two dates at the site near the stream mouth. That site is influenced by Lake Superior Clay Plain soils, which commonly have unstable stream banks.

Continuous temperature monitoring showed all Black River sites exceeded the mean daily cold water/cool water threshold (69.3oF) on numerous days in the summer (Figures 12-18). Five of the six Black River sites also exceeded the mean daily cool water/warm water threshold (76.3oF) on one or more summer days. The warmer temperatures observed support the classification of the Black River as a class III trout water, which has no natural reproduction or annual carryover of stocked fish.

Site Selection and Study Design

This TWA study involved collection of fish community, macroinvertebrate, water chemistry, water temperature, and qualitative habitat data at several sites in the Black River Watershed. For 2016, six monitoring sites were sampled at accessible locations along the length of the Black River, with one site located on the Little Black River (Figure 8). Fish community and macroinvertebrate monitoring data collected from several sites between 2003 and 2014 was also compiled and reviewed.

Monitoring stations from 2016 and previous years are listed and shown Table 2, Figure 8. Fish community, macroinvertebrate, and water quality monitoring data collected from three sites were also compiled and reviewed.

The 2016 monitoring included:

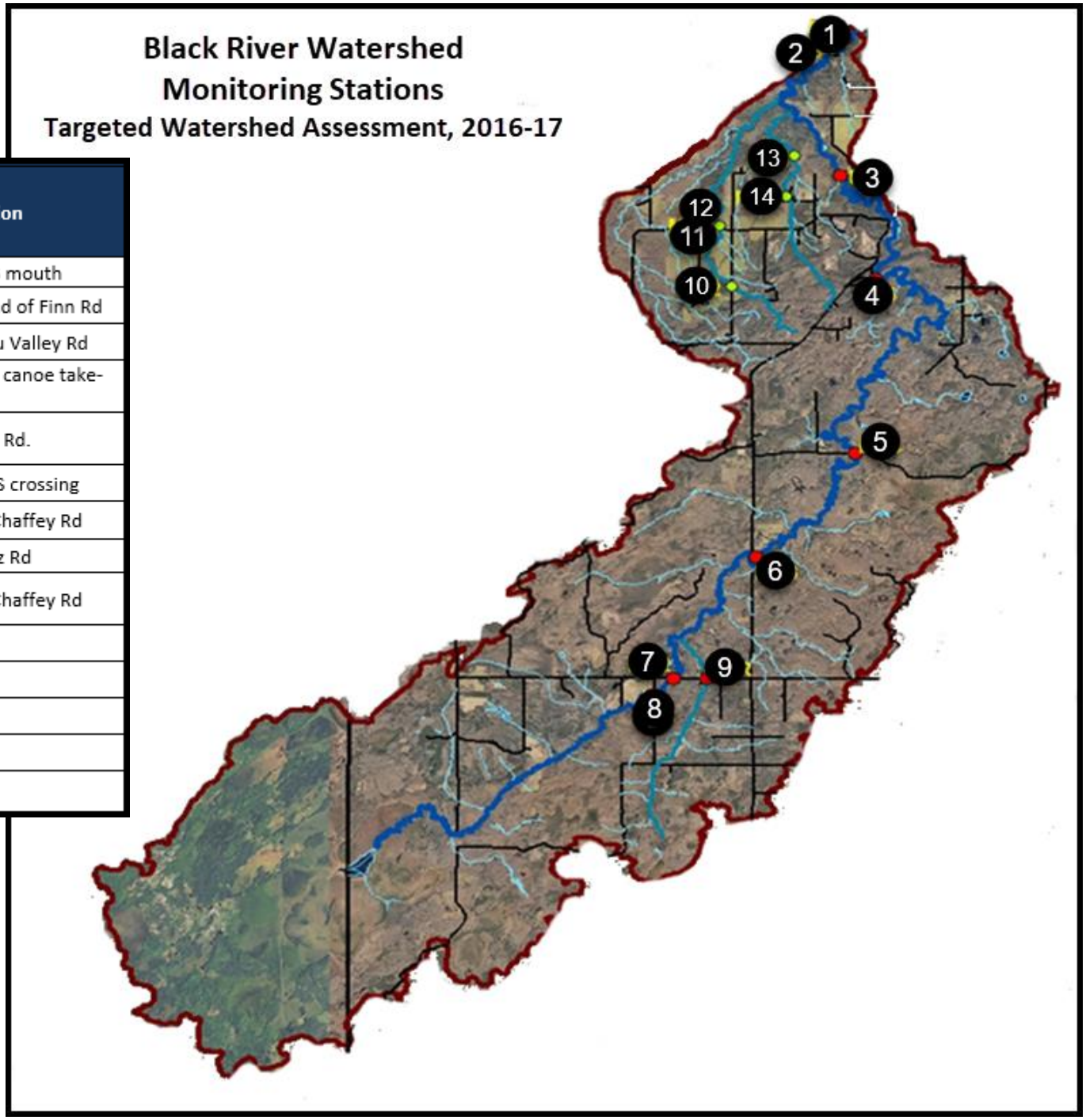
- Fish community surveys at seven sites. Water chemistry samples and a flow measurement were made at the time of each fish survey. Parameters measured were total phosphorus, total Kjeldahl nitrogen, ammonia nitrogen, nitrate plus nitrite nitrogen, total suspended solids, dissolved oxygen, pH, temperature, conductivity, turbidity, and transparency.
- Qualitative habitat assessments at seven sites.
- Macroinvertebrate samples at seven sites.
- Six monthly May-October water chemistry samples collected near the mouth of the Black River and tested for total phosphorus, total Kjeldahl nitrogen, ammonia nitrogen, nitrate plus nitrite nitrogen, total suspended solids, dissolved oxygen, pH, temperature, conductivity, turbidity, and transparency.
- Continuous temperature meters during the summer seven sites.

Table 2. Black River TWA Stations and Data Collection

								Monitoring Components (Year Done)				
Stream	**Map Site #**	**Site Description**	**Years Monitored**	**WBIC**	**Swims Station**	**Lat.**	**Long.**	**Fish**	**Macro-inverteb rates**	**Qualitative Habitat**	**Continuous Temp.**	**Monthly Water Quality**
Black River	1	0.42 miles US mouth	2016	2836900	10047674	46.58151	-92.1367	2016	2016	2016	2016	2016
	2	US bridge -end of Finn Rd	2009	2836900	10030272	46.578873	-92.14029	2009	2009			
	3	Near Manitou Valley Rd	2016	2836900	10039686	46.54673	-92.137695	2016	2016	2016	2016	
	4	Pattison Park canoe take-out	2016	2836900	10047036	46.52026	-92.12626	2016	2016	2016	2016	
	5	US Milchesky Rd.	2016, 2003	2836900	10010225	46.47559	-92.13256	2016, 2003	2016, 2003	2016	2016	
	6	DS STH 35, US crossing	2016	2836900	10046991	46.448999	-92.1640211	2016	2016	2016	2016	
	7	US Foxboro-Chaffey Rd	2016, 2003	2836900	10010190	46.418003	-92.1901	2003	2003		2016	
	8	25 m US Dietz Rd	2016	2836900	10046990	46.413862	-92.1963717	2016	2016	2016		
Little Black R.	9	US Foxboro-Chaffey Rd	2016, 2003	2839900	10010194	46.418	-92.17941	2016, 2003	2016, 2003	2016	2016	
Miller Creek	10	Polish Rd	2013	2837000	10041750	46.518076	-92.1718777	2013				
	11	US CTH B	2007	2837000	10021341	46.532497	-92.176056	2007	2007			
	12	DS CTH B	2013	2837000	10041728	46.533879	-92.1758016	2013				
Rock Creek	13	Manisky Rd	2014	2837300	10043086	46.541374	-92.1549111	2014				
	14	RR trestle	2014	2837300	10043087	46.551838	-92.152269	2014				

Figure 8. Black River Watershed TWA Monitoring Stations

Stream	Map Site #	Site Description
Black River	1	0.42 miles US mouth
	2	US bridge -end of Finn Rd
	3	Near Manitou Valley Rd
	4	Pattison Park canoe take-out
	5	US Milchesky Rd.
	6	DS STH 35, US crossing
	7	US Foxboro-Chaffey Rd
	8	25 m US Dietz Rd
Little Black R.	9	US Foxboro-Chaffey Rd
Miller Creek	10	Polish Rd
	11	US CTH B
	12	DS CTH B
Rock Creek	13	Manisky Rd
	14	RR trestle



Methods, Equipment, and Quality Assurance

Fish Assemblage and Natural Community

Fish surveys were conducted by electroshocking a section of stream with a station length of 35 times the mean stream width (100 m minimum and 400 m maximum station length) (Lyons, 1992). Two backpack shockers were used at all sites except the Little Black River, where a single backpack shocker was used. All fish were collected, identified, and counted. Surveys were conducted using the following methods:

- Wadeable Stream Fish Community Evaluation Form 3600-230 (R 7/00)
- Guidelines for Assessing Fish Communities of Wadeable Streams in Wisconsin

Fish Habitat Evaluation

At each site, qualitative fish habitat ratings were determined using the following methods:

- Qualitative Habitat Rating less that 10m Form (3600-532A) (R 6/07)
- Guidelines for Qualitative Physical Habitat Evaluation of Wadeable Streams

Macroinvertebrate Evaluation

Macroinvertebrate samples were obtained by kick sampling using a D-frame net. Six sites on the Black River and one site on the Little Black River were sampled. Samples were preserved and sent to the University of Wisconsin-Stevens Point for analyses. Standard metrics were calculated for the macroinvertebrate communities found. Methods used were:

- Guidelines for Collecting Macroinvertebrate Samples in Wadeable Streams
- Wadeable Macroinvertebrate Field Data Report Form 3200-081 (R 08/14)

Water Sampling

Water samples were collected monthly during May to October at the monitoring site near the mouth of the Black River (site BR7, figure MON SITES). Samples were shipped on ice to the State Laboratory of Hygiene where they were analyzed for total phosphorus, total Kjeldahl nitrogen, ammonia nitrogen, nitrate plus nitrite nitrogen, and total suspended solids. Field parameters measured were dissolved oxygen, pH, temperature, conductivity, turbidity, and transparency.

Water samples were also collected at the six other sites at the time the fish surveys were conducted. These samples were handled similarly to the monthly samples above and were tested for the same lab and field parameters. Streamflow was also measured at the time of the fish surveys. Methods used were:

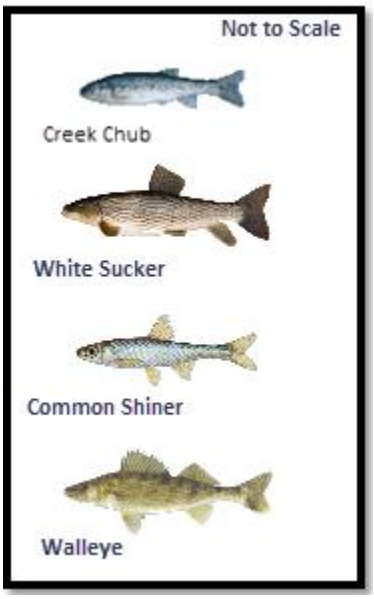
- Guidelines and Procedures for Surface Water Grab Sampling (Dec. 2005 Version 3)
- 2301 open channel flow measurement
- Guidance for Dissolved Oxygen Meter Sampling

Continuous Temperature

Water temperature data loggers were deployed during the summer months at six Black River sites and one Little Black River site. The loggers recorded water temperature every ½ hour.

- Guidelines and Standard Procedures for Continuous Temperature Monitoring Wisconsin DNR May 2004 (Version 1)

Project Results and Discussion



Fish Communities

Fish survey data from this TWA study is summarized in Tables 3 and 4. Fish species identified at each site are enumerated and the natural communities for these waters are verified. The verified natural communities based on the existing fish populations are also listed. Verified Natural Communities based on fish survey data differed in stream size or thermal regime from model-predicted Natural Communities for 8 of the 16 sites Tables 3 and 4.

Fish communities indicate that Natural Community in the Little Black River and in the Black River sites upstream of Big Manitou Falls is a Warm Transition Headwater. The Natural Community at the Black River sites downstream of Big Manitou Falls is a Warm Transition Mainstem.

For Miller Creek, the Natural Community at Polish Road is Coldwater, while the Natural Community upstream and downstream of CTH B is Cold Transition Headwater.
For Rock Creek, the Natural Community at Manisky Road is Cold Transition Headwater, while the Natural Community at the railroad trestle is Warm Transition Headwater.

Fish Condition

Fish Index of Biotic Integrity (IBI) ratings, based on the verified natural community ranged from fair to excellent. Fish IBI ratings for the Little Black and Black River are excellent, with the exception of the Milchesky Road site on the Black River, where the IBI is good (Figure 9); however, fish IBI scores at the Milchesky Road site are only one point short of an excellent rating. Fish IBI ratings for Miller and Rock Creek are good, except for the Miller Creek site upstream of CTH B, which has an IBI rating of fair. This site was dominated by creek chubs, which are a tolerant species.

Fish Assemblage & Stocking

Brook trout were present in Little Black River in both 2003 and 2016. Brook trout were also present at all sites surveyed on Miller and Rock Creek. Brook trout were not found at any of the Black River sites. Three brown trout were found in the Black River at Foxboro-Chaffey Road in 2003, and one brown trout was found in the Black River at Milchesky Road in 2003. Brown trout had been stocked in the Black River that year. No brown trout were found at any of the Black River sites in 2016, when no stocking was being done.

Stocking of trout and salmon in the Black River occurred for many years in the past (Table 4). Brown trout and brook trout were stocked upstream of Little Manitou Falls (Toshner 2018). This stocking was discontinued due to under-utilization by anglers, and concerns about harm to native brook trout populations in headwater streams.

Rainbow trout and chinook salmon were stocked downstream of Big Manitou Falls (Piszczek 2018). Rainbows were expected to gradually move downstream into Lake Superior and mostly provide a fishery in far western Lake Superior. Stocked fingerling chinooks needed to spend a year growing in the river before moving downstream to Lake Superior. It was hoped that some of the rainbows and chinooks would run up the Black River in the fall. A 1985 fall creel survey estimated that only 0.14% of stocked fish were caught in the Black River by anglers.

Water temperatures are the primary limitation to managing cold water fish in the Black River. The lower 31 miles of the Black River is identified as a class III trout water which is marginal trout habitat with no natural reproduction occurring. There is no carryover of trout from one year to the next. Stocking is done on a “put-and-take” basis. Water temperature graphs for multiple sites on the Black River (see Continuous Temperature Data (Figures 12-18) section below) concur with the class III designation and show that mean daily temperatures exceed 72o F on multiple days during the summer. This is generally considered the maximum temperature that cold water fish can tolerate.

Interfalls Lake was last stocked in 1972 with largemouth bass. The only fish survey on record for the lake was done in May of 2009 when the lake was re-filling after a drawdown. Only small numbers of white suckers, common shiners, creek chubs, and black bullhead were found.

Table 3. Black River Watershed 2016-2017 Fish Survey Data

Map Site #	1	3	4	5	6	8	9	Fish Tolerance Rating
Stream	Black River						Little Black River	
Survey Site	0.42 mi US mouth	Near Manitou Valley Rd	Pattison Park canoe take-out	Milchesky Rd	STH 35, upper crossing	Dietz Rd	Foxboro-Chaffey Rd	
SWIMS ID	10047674	10039686	10047036	10010225	10046991	10046990	10010194	
Survey Date	9/1/2016	9/15/2016	8/30/2016	8/30/2016	8/15/2016	8/15/2016	6/7/2016	
Species	Number of Individuals							
creek chub	23	24	54	29	77	97	45	tolerant
common shiner	46	105	5	15	50	56	15	intermediate
white sucker	17	24	11	7	7	36	23	tolerant
central mudminnow	1		12	11	4	5	22	tolerant
fathead minnow	1						1	tolerant
johnny darter	36	2	55	12	15	16	6	intermediate
brook stickleback	1		16	4	6	5	24	tolerant
troutperch			3	1	1			intermediate
brassy minnow			2	4	3			intermediate
logperch	29	5						intermediate
finescale dace				2	1	2	1	intermediate
yellow perch	1	1						intermediate
smallmouth bass	7	6						intolerant
black bullhead				2				tolerant
black crappie		3						intermediate
hornyhead chub	26	30						intermediate
rockbass	5	3						intolerant
silver redhorse	2							intermediate
stonecat	1							intermediate
shorthead redhorse	4	2						intermediate
longnose dace	7	24	9	15		14	1	intermediate
mimic shiner	3							intermediate
western blacknose dace	3	7	73	13	22	64	82	tolerant
burbot		3						intermediate
common shiner X creek chub		1						intermediate
blacknose shiner			5	2	1			intolerant
Iowa darter			24		1	11		intolerant

Map Site #	1	3	4	5	6	8	9	Fish Tolerance Rating
Stream	Black River						Little Black River	
Survey Site	0.42 mi US mouth	Near Manitou Valley Rd	Pattison Park canoe take-out	Milchesky Rd	STH 35, upper crossing	Dietz Rd	Foxboro-Chaffey Rd	
SWIMS ID	10047674	10039686	10047036	10010225	10046991	10046990	10010194	
Survey Date	9/1/2016	9/15/2016	8/30/2016	8/30/2016	8/15/2016	8/15/2016	6/7/2016	
Species	Number of Individuals							
brown trout								intermediate
pearl dace					1	4	59	intermediate
golden shiner		1						tolerant
brook trout							2	intolerant
Modeled Natural Community	Warm Transition Mainstem	Warm Transition Mainstem	Warm Transition Mainstem	Warm Transition Mainstem	Warm Transition Mainstem	Warm Transition Headwater	Warm Transition Headwater	
Verified Natural Community	**Warm Transition Mainstem**	**Warm Transition Mainstem**	**Warm Transition Headwater**	**Warm Transition Headwater**	**Warm Transition Headwater**	**Warm Transition Headwater**	**Warm Transition Headwater**	
Small stream IBI score			100	90	100	100	100	
Cool-Warm Transition IBI	80	80						
IBI rating	**excellent**	**excellent**	**excellent**	**good**	**excellent**	**excellent**	**excellent**	
%tolerant individuals	22	23	62	56	61	67	70	
total species	18	16	12	13	13	11	12	
total fish	213	241	269	117	189	310	281	

Table 4: Black River Watershed Fish Stocking

Species Stocked	Years	Number of Fish/Year
Brown Trout	1972 - 2006	1,500 - 3,000
Rainbow Trout	1972 - 1995	1,500 - 30,000
Brook Trout	1994	1,500
Chinook Salmon	1977 - 1987	35,000 - 140,000

(Cool-Warm Transition IBI for Warm Transition

Condition (Rating) Categories for Cool-Warm Mainstem Fish Index of Biotic Integrity (fIBI)	
fIBI	Condition
61-100	excellent
41-60	good
21-40	fair
0-20	poor

(Small stream IBI for Warm Transition Headwaters)

Condition (Rating) Categories for Small Stream Fish Index of Biotic Integrity (fIBI)	
fIBI	Condition
91-100	excellent
61-90	good
31-60	fair
0-30	poor

Table 5. Black River Watershed Pre-2016 Fish Survey Data

Stream	2	5	7	9	10	11	12	13	14	Fish Tolerance Rating
	Black River			Little Black R.	Miller Creek			Rock Creek		
Survey Site	Finn Rd	Milchesky Rd	Foxboro-Chaffey Rd	Foxboro-Chaffey Rd	Polish Rd	Upstream CTH B	Downstream CTH B	Manisky Rd	RR trestle	
SWIMS ID	10030272	10010225	10010190	10010194	10041750	10021341	10041728	10043086	10043087	
Survey Date	9/11/2009	8/6/2003	8/19/2003	8/19/2003	8/14/2013	8/8/2007	8/14/2013	8/11/2014	8/22/2014	
Fish Species	Number of Individuals									
creek chub	76	22	81	21		75	58	3	95	tolerant
common shiner	258	75	69						38	intermediate
white sucker	90	16	27	20		4	8	2	24	tolerant
central mudminnow		7	11	9				6	2	tolerant
johnny darter	11	4	3				2		7	intermediate
brook stickleback		6	6	29	2	1				tolerant
troutperch	3	6	1							intermediate
logperch	6									intermediate
finescale dace			4							intermediate
smallmouth bass	6									intolerant
black bullhead			2							tolerant
hornyhead chub	41									intermediate
rockbass	2									intolerant
shorthead redhorse	7									intermediate
longnose dace		28	7					5	25	intermediate
western blacknose dace	1	44	107	52		10		1	105	tolerant
blacknose shiner		2								intolerant
Iowa darter		11	2							intolerant
brown trout		1	3							intermediate
pearl dace			10	34						intermediate
brook trout				17	9	1	50	29	3	intolerant
northern pike	1									intermediate
walleye	3									intermediate
slimy sculpin							4	21	8	intolerant
mottled sculpin						6				intolerant
redside dace							1			intolerant
northern redbelly dace				2						intermediate
sand shiner	43									intermediate

Stream	2	5	7	9	10	11	12	13	14	Fish Tolerance Rating
	Black River			Little Black R.	Miller Creek			Rock Creek		
Survey Site	Finn Rd	Milchesky Rd	Foxboro-Chaffey Rd	Foxboro-Chaffey Rd	Polish Rd	Upstream CTH B	Downstream CTH B	Manisky Rd	RR trestle	
SWIMS ID	10030272	10010225	10010190	10010194	10041750	10021341	10041728	10043086	10043087	
Survey Date	9/11/2009	8/6/2003	8/19/2003	8/19/2003	8/14/2013	8/8/2007	8/14/2013	8/11/2014	8/22/2014	
Fish Species	Number of Individuals									
Verified Natural Community	Warm Transition Mainstem	Warm Transition Headwater	Warm Transition Headwater	Warm Transition Headwater	Coldwater	Cold Transition Headwater	Cold Transition Headwater	Cold Transition Headwater	Warm Transition Headwater	
Modeled Natural Community	Warm Transition Mainstem	Warm Transition Mainstem	Warm Transition Headwater	Warm Transition Headwater	Warm Transition Headwater	Warm Transition Headwater	Warm Transition Headwater	Cold Transition Headwater	Cold Transition Headwater	
coldwater IBI score					80					
small stream IBI score		90	100	100		60	80	70	80	
Cool-Warm Transition IBI	90									
IBI rating	**good**	**good**	**excellent**	**excellent**	**good**	**fair**	**good**	**good**	**good**	
%tolerant individuals	30	43	71	71	18	93	54	18	74	
total species	14	12	14	8	2	6	6	7	9	
total fish	548	222	333	182	11	97	123	67	307	

(Warm Transition Mainstem)

Condition (Rating) Categories for Cool-Warm Mainstem Fish Index of Biotic Integrity (fIBI)	
fIBI	**Condition**
61-100	excellent
41-60	good
21-40	fair
0-20	poor

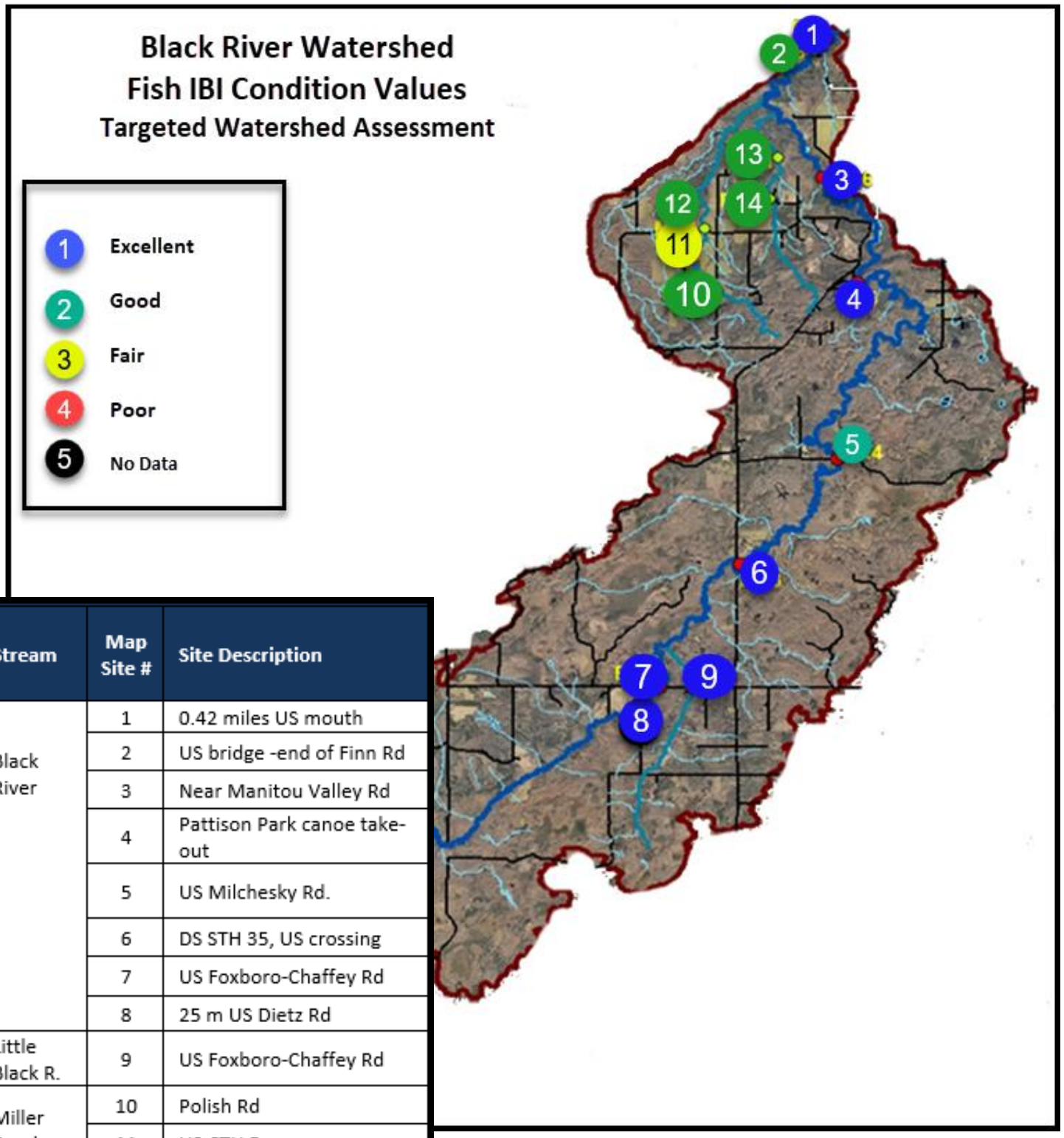
(Small Stream IBI for Cool Warm Headwater)

Condition (Rating) Categories for Small Stream Fish Index of Biotic Integrity (fIBI)	
fIBI	**Condition**
91-100	excellent
61-90	good
31-60	fair
0-30	poor

(Cool Warm IBI for Warm Mainstem)

Condition (Rating) Categories for Warm Mainstem Fish Index of Biotic Integrity (fIBI)	
fIBI	**Condition**
66-100	excellent
51-65	good
31-50	fair
0-30	poor

Figure 9. Black River Watershed Fish IBI Condition Map



Stream	Map Site #	Site Description
Black River	1	0.42 miles US mouth
	2	US bridge -end of Finn Rd
	3	Near Manitou Valley Rd
	4	Pattison Park canoe take-out
	5	US Milchesky Rd.
	6	DS STH 35, US crossing
	7	US Foxboro-Chaffey Rd
	8	25 m US Dietz Rd
Little Black R.	9	US Foxboro-Chaffey Rd
Miller Creek	10	Polish Rd
	11	US CTH B
	12	DS CTH B
Rock Creek	13	Manisky Rd
	14	RR trestle

Qualitative Fish Habitat Ratings

Qualitative fish habitat ratings for six Black River sites and one Little Black River site are shown in Table 6. Three sites have excellent ratings, two sites have good ratings, and two sites have fair ratings. The Black River site at Milchesky Road had a fair rating. Rating points were lost mostly due to: a high riffle: riffle or bend: bend ratio since the station is mostly a continuous run (15 points lost), fine sediment (sand or silt) covering > 21% of the stream bed (10 points lost), and pool areas occupying < 29% of the station (7 points lost).

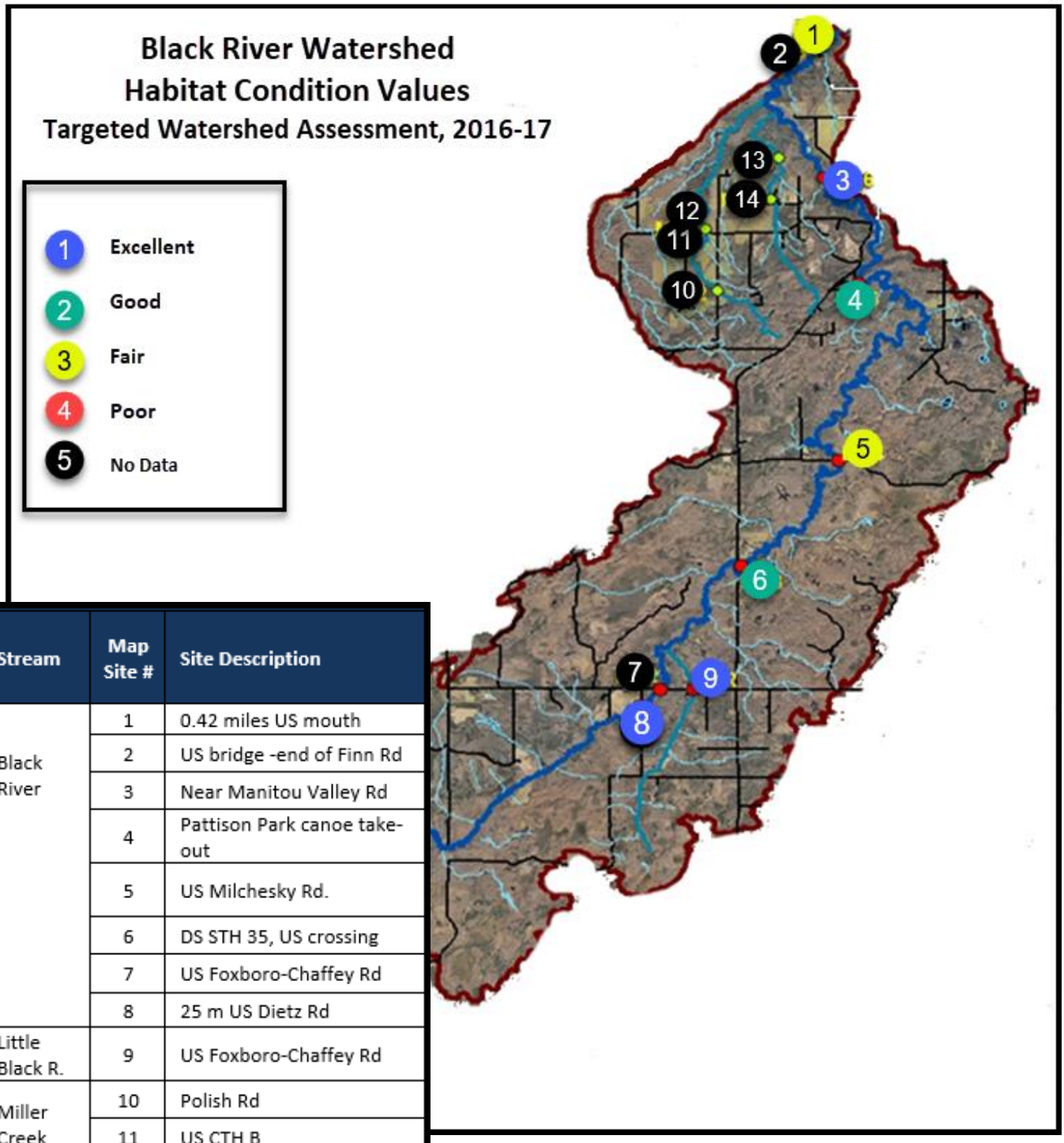
The Black River site 0.42 miles upstream of the mouth also had a fair rating. Rating points were lost mostly due to rocky substrate with hard substrates covering < 15% of stream bed (25 points lost), and bank stability with extensive bank erosion due to clay plain soils (12 points lost).

Table 6. Black River Watershed Qualitative Fish Habitat Ratings

	Stream Site							
	Rating Item [maximum potential score]	**Black R. 0.42 miles upstream of mouth**	**Black R. near Manitou Valley Rd.**	**Black R. at Pattison Park canoe take-out**	**Black R. at Milchesky Rd.**	**Black R. at STH 35, upstream crossing**	**Black R. at Dietz Rd.**	**Little Black R. at Foxboro-Chaffey Rd.**
	Map Site #	1	3	4	5	6	8	9
For streams < 10 m wide	Riparian Buffer Width (15)		15		15	15	15	15
	Bank Erosion (15)		10		10	10	15	15
	Pool Area (10)		7		3	7	10	10
	Width: Depth Ratio (15)		5		5	10	10	10
	Riffle: Riffle or Bend: Bend Ratio (15)		15		0	5	15	15
	Fine Sediments (15)		15		5	0	15	15
	Cover for Fish (15)		10		10	10	15	15
	Total Score		77		48	57	95	95
	Rating		**excellent**		**fair**	**good**	**excellent**	**excellent**
For Streams > 10 m wide	Bank Stability (12)	0		8				
	Maximum Thalweg Depth (25)	16		16				
	Riffle: Riffle or Bend: Bend Ratio (12)	4		8				
	Rocky Substrate (25)	0		16				
	Cover for Fish (25)	16		16				
	Total Score	36		64				
	Rating	**fair**		**good**				

Condition Rating Categories for Qualitative Habitat	
Score	Condition
> 75	Excellent
50-75	Good
25-49	Fair
< 25	Poor

Figure 10. Black River Watershed Qualitative Fish Habitat Rating Map



Stream	Map Site #	Site Description
Black River	1	0.42 miles US mouth
	2	US bridge -end of Finn Rd
	3	Near Manitou Valley Rd
	4	Pattison Park canoe take-out
	5	US Milchesky Rd.
	6	DS STH 35, US crossing
	7	US Foxboro-Chaffey Rd
	8	25 m US Dietz Rd
Little Black R.	9	US Foxboro-Chaffey Rd
Miller Creek	10	Polish Rd
	11	US CTH B
	12	DS CTH B
Rock Creek	13	Manisky Rd
	14	RR trestle

Macroinvertebrates

Macroinvertebrate sampling results are summarized in table BUGS. Results indicate very good water quality and habitat conditions. Ten of the twelve macroinvertebrate IBI ratings (Weigel 2003) are excellent and two are good. Hilsenhoff biotic index (HBI) (Hilsenhoff 1987) ratings range from good to excellent. HBI ratings are primarily influenced by dissolved oxygen (D.O.) availability and these ratings indicate D.O. availability is not a problem at these sites. Species richness values are high and range from 22 to 50 species per site.

Table 7. Black River Watershed Macroinvertebrate Sample Results

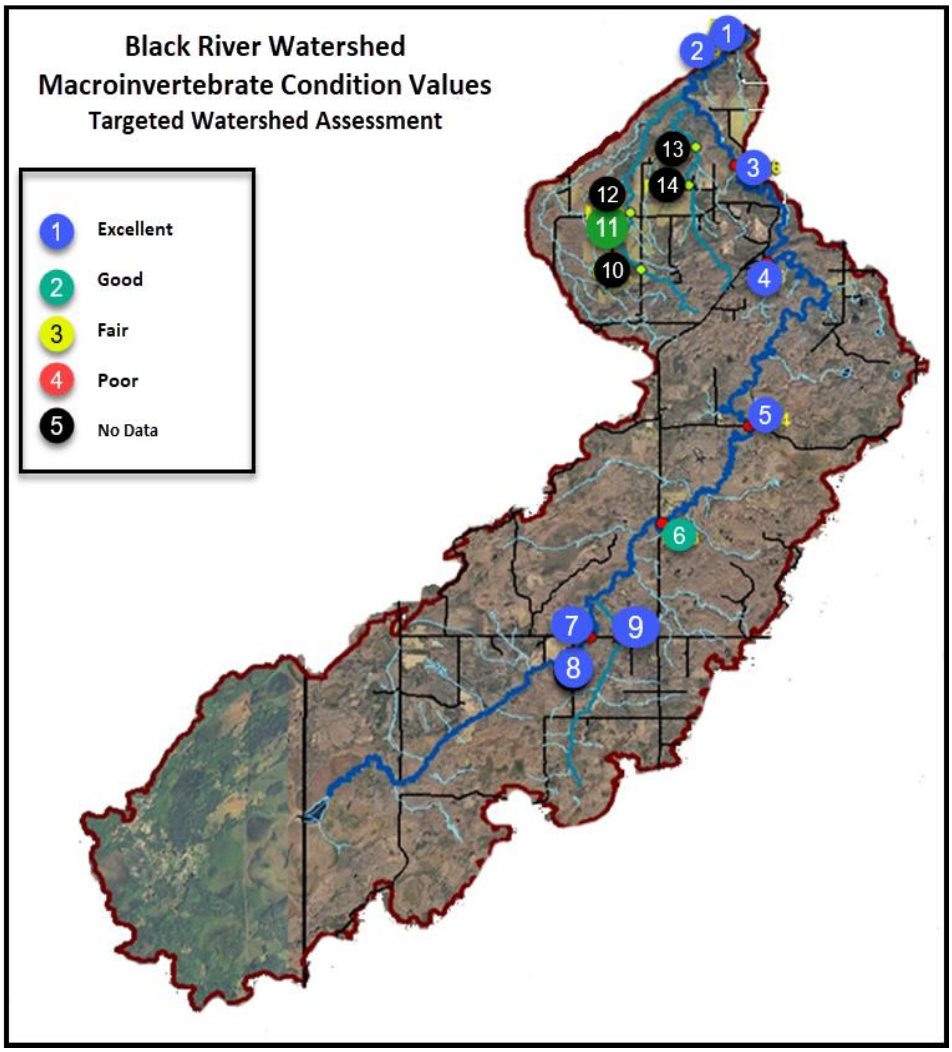
Stream	Site	SWIMS ID	Date	Macro-invertebrate IBI	MIBI Rating	Hilsenhoff Biotic Index	HBI Rating	Species Richness	%EPT indiv.	%EPT Genera	% Chironimidae Indiv.
Black River	0.42 miles upstream of mouth	10047674	5/26/2016	9.10	excellent	4.61	good	49	53	31	32
	Upstream of bridge at end of Finn Rd	10030272	11/12/2009	9.16	excellent	4.39	very good	46	65	41	15
	Near Manitou Valley Rd	10039686	10/3/2016	9.99	excellent	2.12	excellent	29	76	62	21
	Pattison Park canoe take-out	10047036	10/6/2016	9.11	excellent	2.55	excellent	50	58	43	21
	Upstream Of Milchesky Rd.	10010225	10/6/2016	8.67	excellent	2.64	excellent	39	46	42	10
			10/22/2003	10.64	excellent	4.43	very good	32	28	41	65
	Downstream of STH 35, upstream crossing	10046991	10/10/2016	7.28	good	3.78	very good	44	26	32	28
	Upstream of Foxboro-Chaffey Rd	10010190	10/22/2003	8.76	excellent	4.30	very good	35	26	40	64
	25 m US Dietz Rd	10046990	10/13/2016	9.70	excellent	2.67	excellent	40	54	41	16
Little Black River	Upstream of Foxboro-Chaffey Rd	10010194	10/13/2016	10.55	excellent	4.58	good	48	26	33	60
			10/22/2003	8.11	excellent	5.18	good	27	11	22	83
Miller Creek	Upstream of CTH B	10021341	10/23/2007	5.35	good	3.63	very good	22	32	67	1

Figure 11. Black River Watershed Macroinvertebrate IBI Condition Map

Stream	Map Site #	Site Description
Black River	1	0.42 miles US mouth
	2	US bridge -end of Finn Rd
	3	Near Manitou Valley Rd
	4	Pattison Park canoe take-out
	5	US Milchesky Rd.
	6	DS STH 35, US crossing
	7	US Foxboro-Chaffey Rd
	8	25 m US Dietz Rd
Little Black R.	9	US Foxboro-Chaffey Rd
Miller Creek	10	Polish Rd
	11	US CTH B
	12	DS CTH B
Rock Creek	13	Manisky Rd
	14	RR trestle

Condition (Rating) Categories for HBI's	
HBI	Condition
0.00-3.50	excellent
3.51-4.50	very good
4.51-5.50	good
5.51-6.50	fair
6.51-7.50	fairly poor
7.51-8.50	poor
8.51-10.00	very poor

Condition (Rating) Categories for Macroinvertebrate Index of Biotic Integrity (MIBI)	
Score	Condition
>75	excellent
50-75	good
25-49	fair
< 25	poor



Water Quality

Wisconsin's stream total phosphorus concentration (TP) standard is 75 ug/l. The procedure for determining if a stream meets this standard requires the collection of six monthly TP samples and calculation of the 90% confidence interval of the mean of these samples (WDNR 2013; WisCALM). This data is listed in Table 8, and shows the upper 90% confidence limit for these samples is less than 75 ug/l (54 ug/l). This indicates the Black River is meeting the TP standard. TP samples collected at fish survey sites were all less than 75 ug/l (Table 9) and it seems likely that the entire Black River and Little Black River meets the TP standard.

Wisconsin's stream dissolved oxygen concentration (D.O.) standard is 5.0 mg/l for cool water streams. Three days of continuous measurement during two summers is required for a full D.O. assessment. All D.O. measurements made at all sites exceeded 6.0 mg/l. It is unlikely that D.O.'s are a significant concern for the Black River and Little Black River. However, drainage from the extensive wetlands in the watershed might cause occasional D.O. reduction in some stream segments since wetland drainage can contain substantial amounts of oxygen demanding substances at times.

pH values ranged from 6.6 to 7.4 s.u.'s, and fell within the 6 to 9 s.u. range that is the Wisconsin stream standard. pH's tend to increase from upstream to downstream (Table 9). This is probably due to greater influence of wetland drainage (which has low pH's) in upstream areas, and greater inputs of groundwater (which has higher pH's) in downstream areas.

Stream standards do not exist for the other water quality parameters measured. Values are generally unexceptional for streams in northwest Wisconsin. There are few substantial differences between sites. Total suspended solids concentrations (TSS's) at times were substantially higher at the Black River site near the mouth than at upstream sites. Correspondingly, transparencies were substantially lower. This site is located in the Lake Superior Clay Plain (Figure 10). Bank erosion of clay rich soils tends to be the main source of higher TSS's and lower transparencies in streams in this area. True color was measured on one date and was 250 Pt-Co units. This is considered very highly colored water.

Table 8. Black River (SWIMS Station: 10047674) May-October 2016 Water Quality Data (0.42 miles US mouth)

DATE	Total Phosphorus (ug/l)	Total Suspended Solids (mg/l)	Total Kjeldahl Nitrogen (mg/l)	Ammonia Nitrogen (mg/l)	Nitrate plus Nitrite Nitrogen (mg/l)	Dissolved Oxygen (mg/l)	Temperature (°C)	pH (s.u.)	Specific Conductivity (umhos/cm)	Transparency (cm)	True Color (Pt-Co units)
5/11/2016	30	9	0.657	0.0153	< 0.019	10.7	11.3	7.1	69		
6/7/2016	54	22.7	0.821	0.0178	< 0.019	9.3	14	7.2	64	33	
7/25/2016	83	25.2	1.46	0.0416	0.0731	7.7	23	7	78	30	
8/9/2016	33	4.6	1	0.0294	0.104	7.5	21.6	7.2	124	69	
9/14/2016	40	4.2	0.96	0.027	0.0429	9.4	13.9	7	94	65	250
10/10/2016	35	3	0.888	0.0216	< 0.019	10.5	108	7.4	86	91	
median	37.4	6.8	0.924	0.0243	< 0.031	9.35	17.8	7.15	82	65	
lower 90% confidence limit	34										
upper 90% confidence limit	54										

Table 9. Black River Watershed 2016 Water Quality Data from Fish Survey Site.

Site SWIMS No.	Site Description	Date	Total phosphorus (ug/l)	Total Kjeldahl - N (mg/l)	Ammonia -N (mg/l)	Nitrate plus nitrite - N (mg/l)	Total suspended solids (mg/l)	Dissolved Oxygen (mg/l)	Temp. (°C)	Conductivity (umhos/cm)	pH	Transparency (cm)	Flow (cfs)
10047674	Black River 0.42 mi upstream of mouth	9/1/2016	42	0.78	0.0266	0.031	4	8.1	18.2	126	7.2	103	15.4
10039686	Black River near Manitou Valley Rd	9/14/2016	40	1.02	0.0314	0.0468	2.8	9.7	14.6	81	7.3	93	20.7
10047036	Black River upstream of Pattison Park canoe take-out	8/30/2016	37	0.847	0.0182	0.0395	2	8	20.9	100	7.2	113	22.9
10010225	Black River upstream of Milchesky Rd	8/30/2016	42	0.93	0.0282	0.0939	3.6	7	19.8	90	7.1	83	17.8
10046991	Black River downstream of STH 35 upper crossing	8/15/2016	55	1.39	0.0432	0.0447	6.67	6.7	21.3	64	6.8	66	27.5
10010194	Little Black River upstream of Foxboro-Chaffey Rd	6/7/2016	23	0.841	0.0173	< LOD	< LOD	7.8	14.1	50	6.7	>120	7.7
10046990	Black River upstream of Dietz Rd	8/15/2016	52	1.53	0.0609	0.0324	7.71	6.3	20.3	54	6.6	35	30.9

Continuous Temperature Data

Graphs of mean daily temperatures during June – September of 2016 for seven sites are shown in Figures 12-18. Mean daily temperatures at all sites on the Black River exceeded the upper threshold for cold water fish (69.3oF) on 32 - 51 dates. Exceedances of the upper temperature threshold for cool water fish (76.3oF) occurred on two dates at all of the Black River sites, except for the Pattison Park canoe take-out site, which did not exceed that threshold. Mean daily temperatures at the Little Black River site were slightly cooler than the Black River sites. That site exceeded the coldwater threshold on 13 dates and did not exceed the upper Coolwater threshold.

Table 10 shows July and summer (June – August) stream temperature means and the thermal categories that apply to those means (Lyons 2008). Means for all sites are in the warm transition or warm water categories. The Little Black River had the coolest mean temperatures. That was the only site that had brook trout present in 2016. These mean temperatures and the range of mean daily temperatures found support the classification of the Black River as a class III trout water and help explain the general lack of success of past trout and salmon stocking.

Table 10. Black River Watershed July and Summer (June-August) Mean Stream Temperatures and Thermal Categories.

	SITES						
	Little Black R. at Foxboro-Chaffey Rd.	Black R. at Foxboro-Chaffey Rd.	Black R. at STH 35 upstream crossing	Black R. at Milchesky Rd.	Black R. at Pattison Park canoe take-out	Black R. near Manitou Valley Rd.	Black R. 0.42 miles upstream of mouth
July Mean Temp. (°F)	68.3	71.5	71.3	70.8	68.7	71	70.7
Summer (June-August) Mean Temp. (°F)	65.9	69.2	69	68.4	67.3	68.3	68.2
July Mean Temp. (°F) themal categories							
cold water < 63.5							
cold transition 63.5 - < 67.1							
warm transition 67.1 - 69.8							
warm water > 69.8							
Summer (June-August) Mean Temp. (°F) thermal categories							
cold water < 62.6							
cold transition 62.6 - < 65.7							
warm transition 65.7 - 68.9							
warm water > 68.9							

Black River at Highway 35, Viewing Upstream

Figure 12. Mean Daily Temperatures for Black River at Foxboro-Chaffey Road. Blue line is cold/cool threshold (69.3oF); red line is cool/warm threshold (76.3oF).

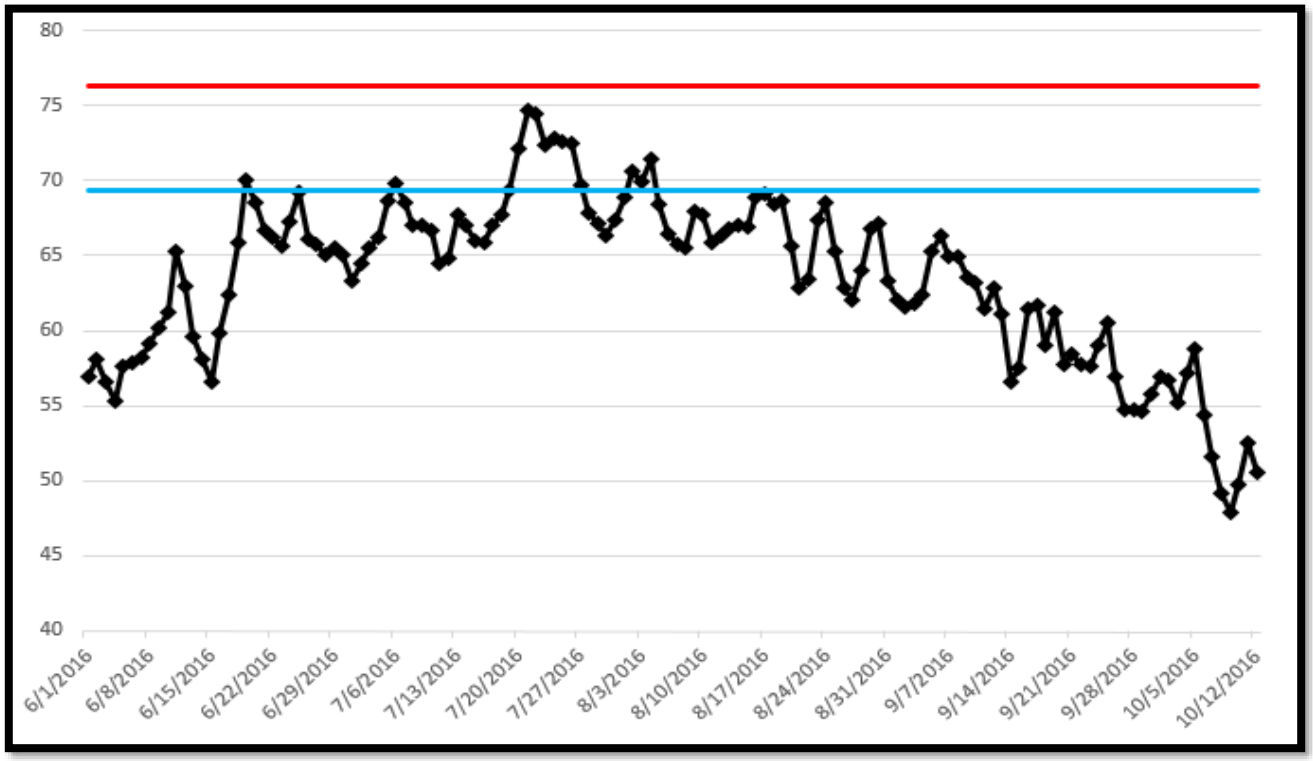


Figure 13. Mean Daily Temperatures for Little Black River at Foxboro-Chaffey Road. Blue line is cold/cool threshold (69.3oF); red line is cool/warm threshold (76.3oF).

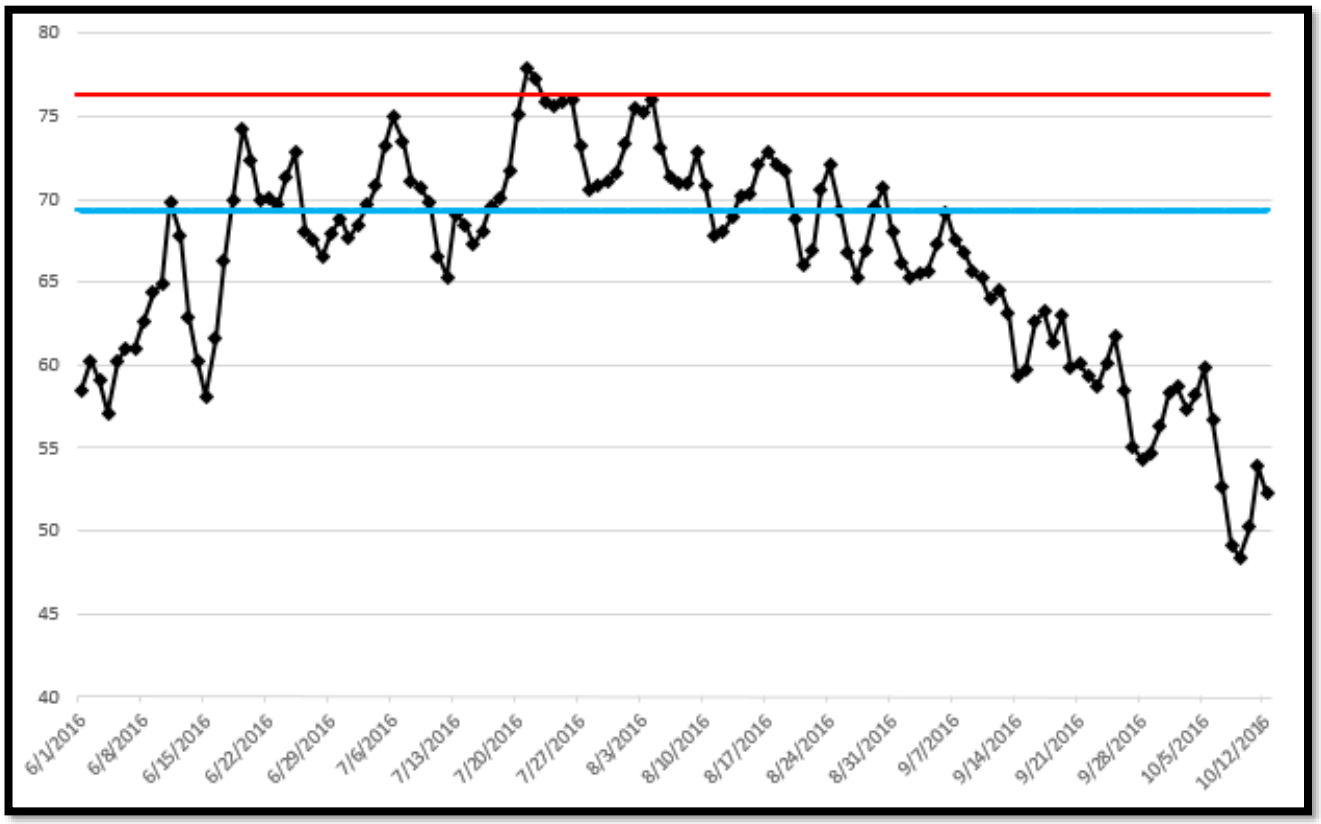


Figure 14. Mean Daily Temperatures for Black River at STH 35. Blue line is cold/cool threshold (69.3oF); red line is cool/warm threshold (76.3oF).

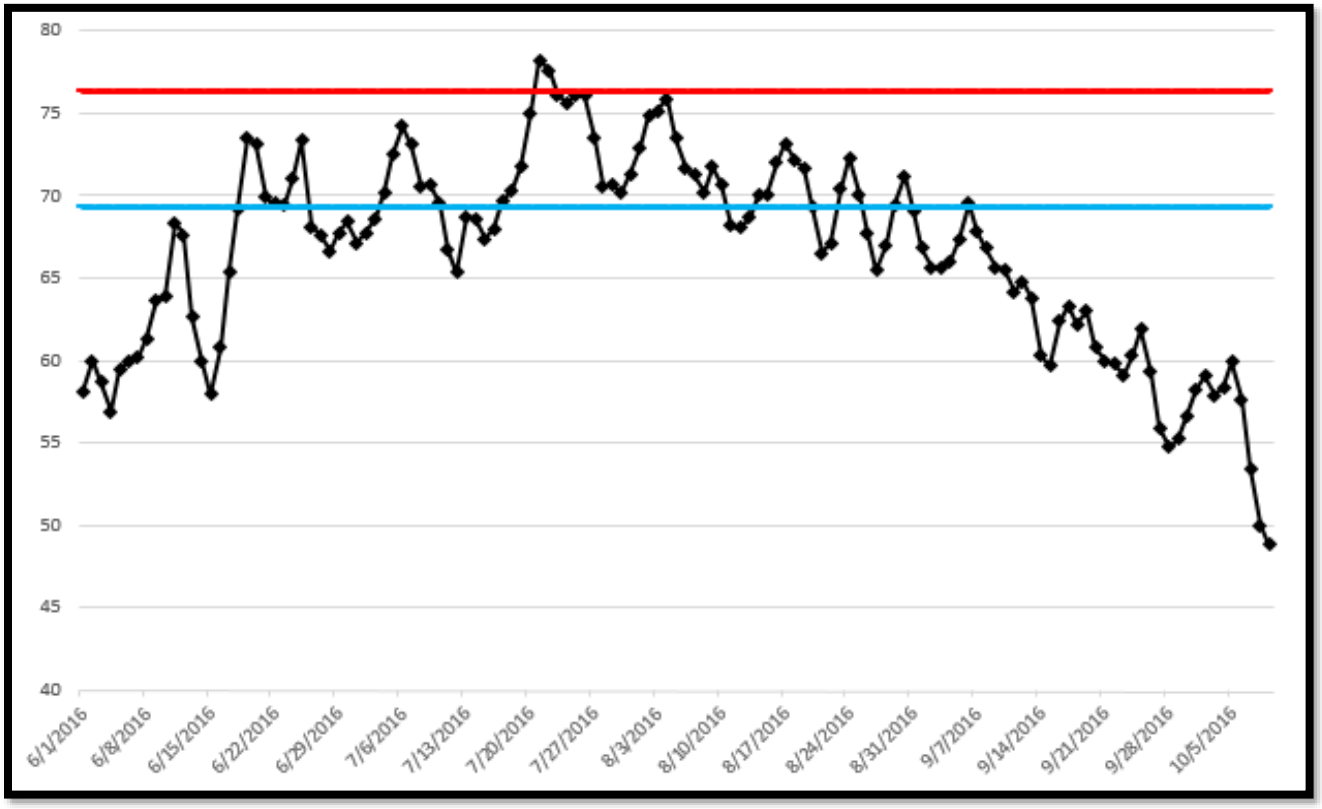


Figure 15. Mean Daily Temperatures for Black River at Milchesky Road. Blue line is cold/cool threshold (69.3°F); red line is cool/warm threshold (76.3°F).

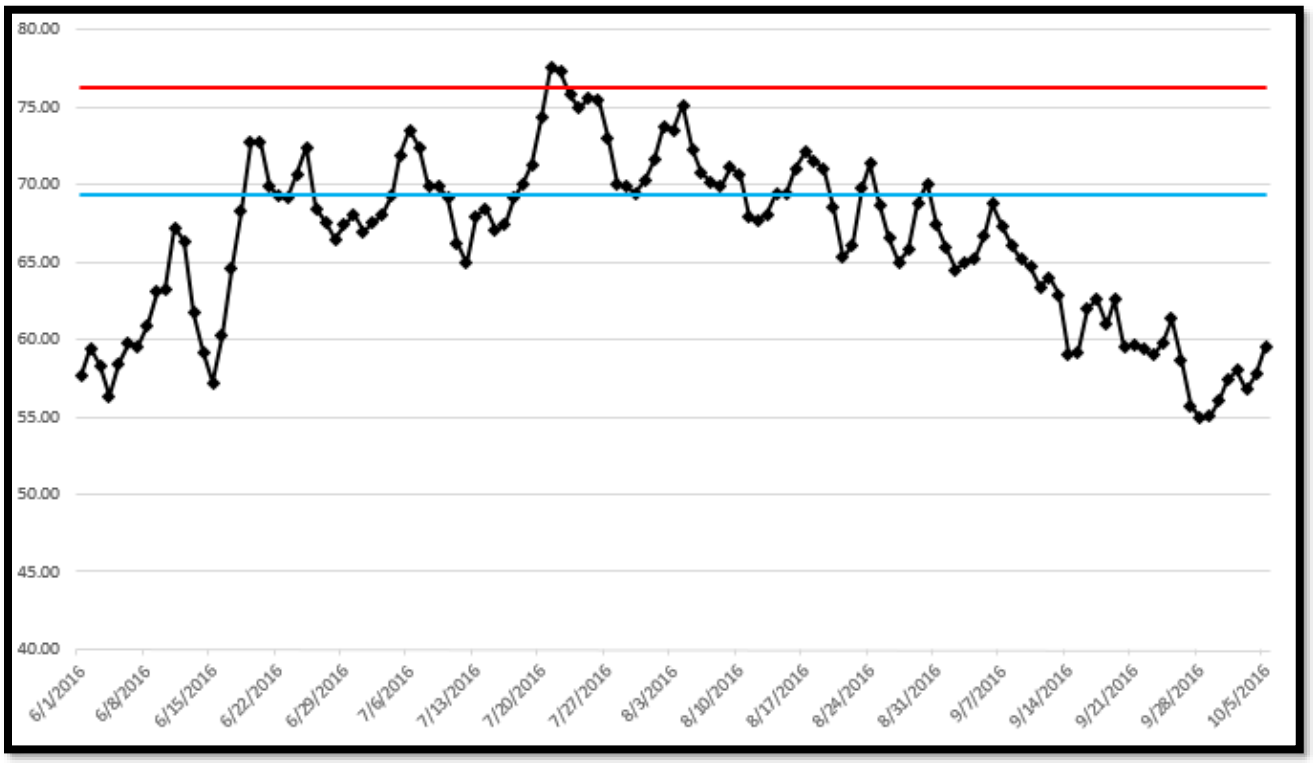


Figure 16. Mean Daily Temperatures for Black River at Pattison Park Canoe Take-out. Blue line is cold/cool threshold (69.3ºF); red line is cool/warm threshold (76.3ºF).

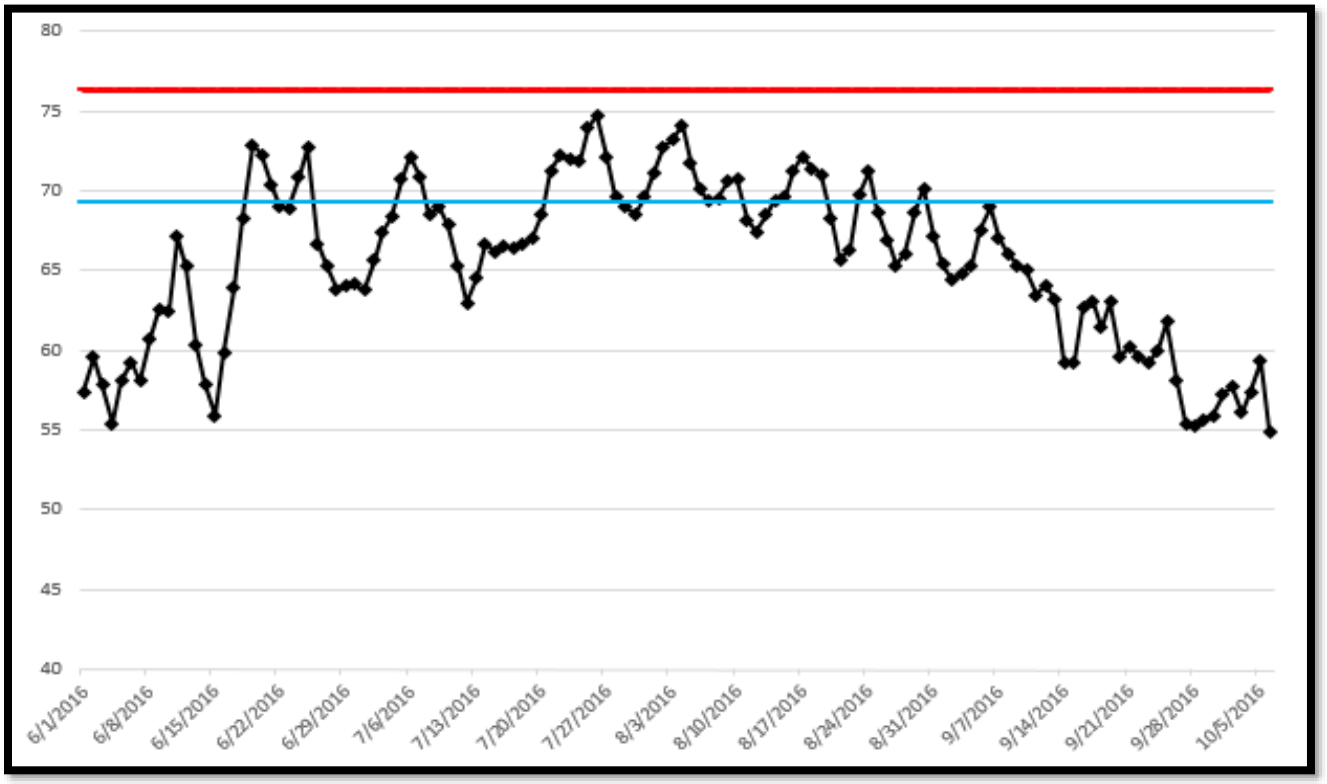


Figure 17. Mean Daily Temperatures for Black River near Manitou Valley Road. Blue line is cold/cool threshold (69.3oF); red line is cool/warm threshold. d (76.3oF).

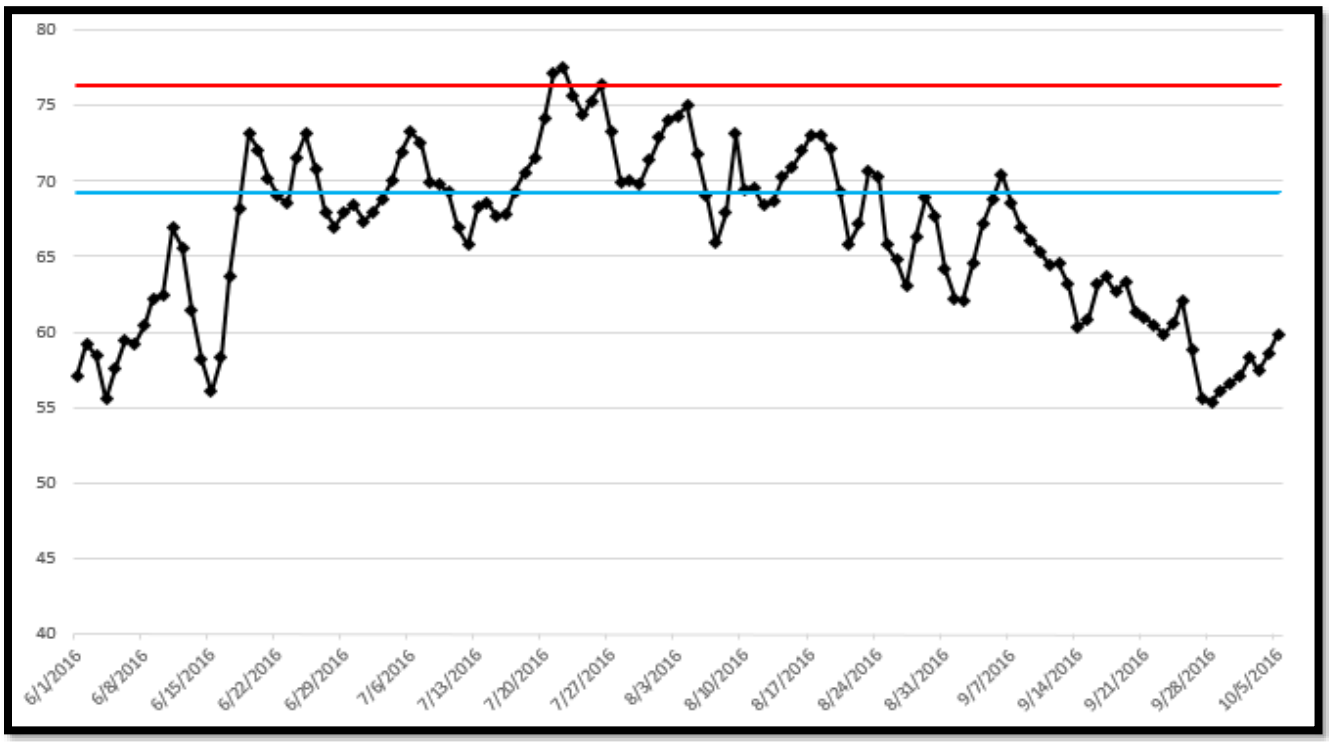
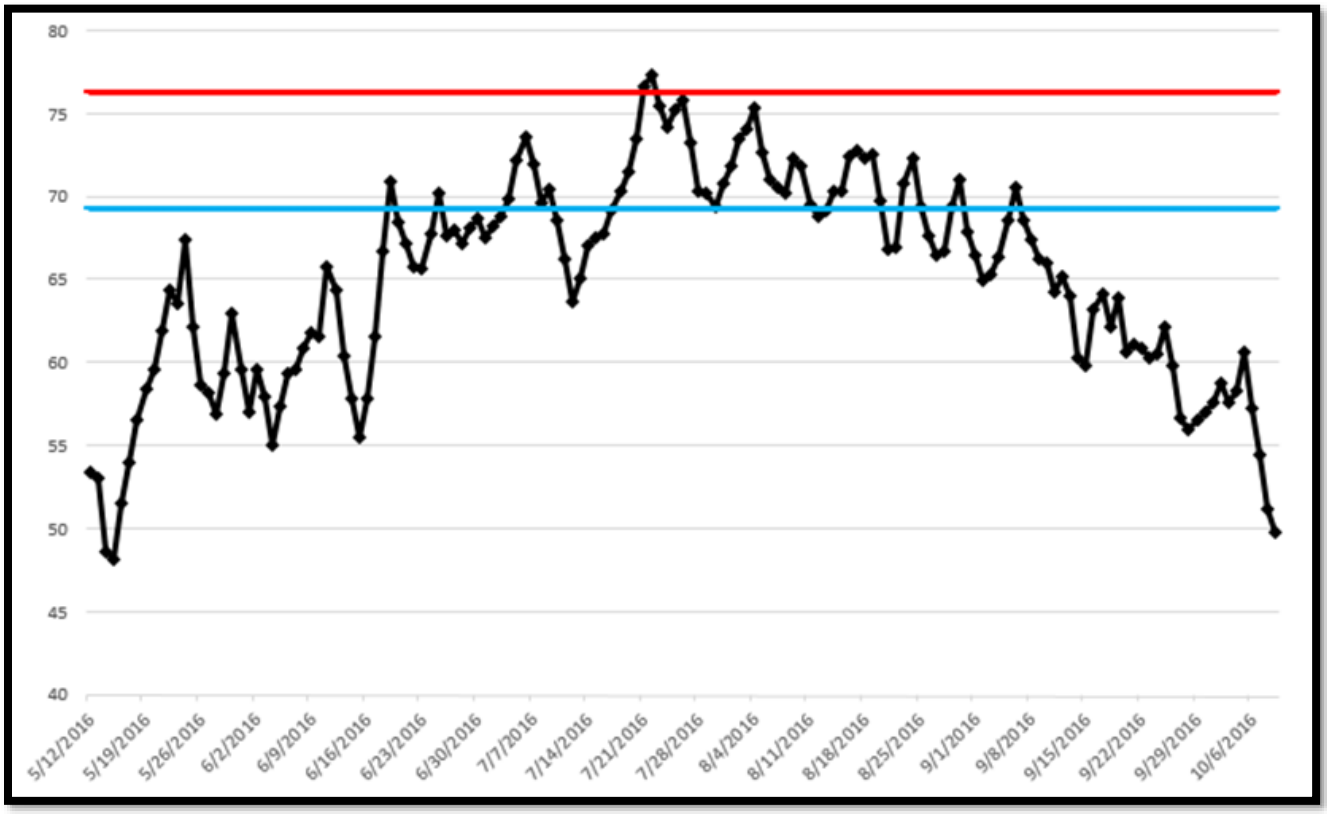


Figure 18. Mean Daily Temperatures for Black River 0.42 Miles Upstream of Mouth. Blue line is cold/cool threshold (69.3°F); red line is cool/warm threshold (76.3°F).



Black River thermistor location at Campground Road, view "downstream". Photo by Craig Roesler, Wisconsin DNR.

Management Recommendations

Management Options

Waters in the Black River watershed generally have very good water quality. Fish and macroinvertebrate communities are also of high quality. The watershed is 94% undeveloped and most stream corridors are scenic. Big and Little Manitou Falls add greatly to the scenic beauty. The two falls and Interfalls Lake lie within Pattison State Park, which also has a campground, swimming beach, scenic falls overlooks, and hiking trails. There is a canoe trail between a launch at STH 35 and a take-out just upstream of Little Manitou Falls. Protection efforts to maintain the quality of these resources should be made.

- Classification of the Black River as an Outstanding Resource Water (ORW) or Exceptional Resource Water (ERW) should be pursued. The DNR is currently in the process of updating the protocols for classifying waters as ORW or ERW, so evaluation of the Black River will have to wait until this process is completed. Past ORW/ERW classification protocols have placed substantial emphasis on the presence of a high-quality sport fishery. If the new protocols also have such an emphasis, it may be difficult for the Black River to be rated high enough for ORW/ERW classification.

- The Black River should be considered as a high priority for the state Healthy Waters initiative, which is a new and evolving program as of 2019.

Management Recommendations for DNR and External Partners

- The DNR should work with the Douglas County Land and Water Conservation Department to identify options for further protecting watershed streams.

- The DNR should encourage Douglas County to continue to apply for grants to fund information and education work and / or Healthy Waters Grants to promote protection of the Black River Watershed.

Monitoring and Assessment Recommendations

- DNR should continue monitoring and assessing watershed streams using the new Tiered Aquatic Life Use (TALU) thresholds and procedures that coincide with the state's recently updated Water Quality Standards.

Big Manitou Falls

Big Manitou Falls is a waterfall on the Black River, a tributary of the Nemadji River. The falls are within ***Pattison State Park in Douglas County,*** Wisconsin, about 13 miles south of Superior. At 165 feet, Big Manitou Falls is the highest waterfall in Wisconsin.

DNR SNA, Photo by Kevin Feind

Big Manitou Falls and Gorge contains a unique river gorge carved out of both sandstone and basalt and includes the 165' high roaring, cascading falls of the Black River. In the few thousand years since the last glacier retreated, the river slowly eroded through the layers of soft sandstone and clay and gradually formed the steep sided gorge. However, underlying much of the area is basalt, a strong and resistant product of deep volcanic action that occurred over a billion years ago. While the river forged a relatively easy pathway through the sandstone, upon meeting the resistant lava rock, the river could not erode as rapidly, and the water's power was expended downwards, creating Big Manitou Falls.

The fourth highest waterfall east of the Rocky Mountains, its name comes Native Americans who said they heard the voice of the Great Spirit in the roaring of the falls - calling it "Gitchee Manitou". Two rare species have been found within the rocky gorge. Big Manitou Falls and Gorge is owned by the DNR and was designated a State Natural Area in 2003.

Learn more about this State Natural Area

Appendix A: References

Becker, George C. 1983. Fishes of Wisconsin. The University of Wisconsin Press. 1051 pp.

Hilsenhoff, William L. 1987. An Improved Biotic Index of Organic Stream Pollution. The Great Lakes Entomologist. 20: 31-39.

Lyons, John. 1992. Using the Index of Biotic Integrity (IBI) to Measure Environmental Quality in Warmwater Streams of Wisconsin. United States Department of Agriculture. General Technical Report NC-149.

Lyons, John. 2006. A Fish-based Index of Biotic Integrity to Assess Intermittent Headwater Streams in Wisconsin, USA. Environmental Monitoring and Assessment 122: 239-258.

Lyons, John. 2008. Using the Wisconsin Stream Model to Estimate the Potential Natural Community of Wisconsin Streams (DRAFT). Wisconsin Department of Natural Resources Fish and Aquatic Life Research Section. November 2008.

Lyons, John. 2008. Revised Stream Thermal Classification Thresholds. Wisconsin DNR Fish Researcher. Guidance in 02/21/2008 e-mail.

Lyons, John. L. Wang and T. Simonson. 1996. Development and Validation of an Index of Biotic Integrity for Coldwater Streams in Wisconsin. North American Journal of Fisheries Management, 16:2, 241-256.

Lyons, John. 2012. Development and Validation of Two Fish-based Indices of Biotic Integrity for Assessing Perennial Coolwater Streams in Wisconsin, USA. Ecological Indicators 23 (2012) 402-412.

Lyons, John. 2013. Methodology for Using Field Data to Identify and Correct Wisconsin Stream "Natural Community" Misclassifications. Version 4. May 16, 2013. IN DRAFT.

Lyons, John. T. Zorn, J. Stewart, P Seelbach, K Wehrly, and L. Wang. 2009. Defining and Characterizing Coolwater Streams and Their Fish Assemblages in Michigan and Wisconsin, USA. North American Journal of Fisheries Management. 29:1130-1151.

Piszczek, Paul. 2018. Personal communication. Wisconsin Department of Natural Resources, Fish management specialist, Superior, WI.

Pratt, Dennis. 1996. WI DNR Fish Management Specialist, Superior, WI. Memo (May 24, 1996) with Comments on Draft Lake Superior Water Quality Management Plan, 1996.

Roesler, C.P. 2018. Saint Louis River Estuary Clay-influenced Bay Assessment. WDNR Water Quality Biologist, Spooner, WI. SWIMS EGAD No. 3200-2018-49.

Simonson, Timothy D., J. Lyons, and P.D. Kanehl. 1994. Guidelines for Evaluating Fish Habitat in Wisconsin Streams. U.S. Department of Agriculture. Forest Service. General Technical Report NC-164.

Toshner, Scott. 2018. Personal communication. Wisconsin Department of Natural Resources, Fish management specialist, Brule, WI.

Weigel, Brian. 2003. Development of Stream Macroinvertebrate Models That Predict Watershed and Local Stressors in Wisconsin. Journal of the North American Benthological Society. 22(1): 123-142.

WDNR. 2000. Guidelines for Collecting Macroinvertebrate Samples from Wadable Streams. Wisconsin Department of Natural Resources. Bureau of Fisheries Management and Habitat Protection Monitoring and Data Assessment Section.

WDNR. 2001. Guidelines for Assessing Fish Communities of Wadable Streams in Wisconsin.

WDNR. 2007. Guidelines for Qualitative Physical Habitat Evaluation of Wadeable Streams. Wisconsin Department of Natural Resources. Bureau of Fisheries Management Monitoring and Data Analysis Section; modified from Simonson et al. 1994. Guidelines for Evaluating Fish Habitat in Wisconsin Streams. U.S. Department of Agriculture. Forest Service. General Technical Report NC-164.

WDNR. 2013. Wisconsin 2014 Consolidated Assessment and Listing Methodology (WisCALM). Clean Water Act Section 305(b), 314, and 303(d) Integrated Reporting. Wisconsin Department of Natural Resources. Bureau of Water Quality Program Guidance. September 2013.

WDNR. 2018. Wisconsin 2018 Consolidated Assessment and Listing Methodology (WisCALM). Clean Water Act Section 305(b), 314, and 303(d) Integrated Reporting. Wisconsin Department of Natural Resources. Bureau of Water Quality Program Guidance. September 2017 (2018).

Appendix B: Stream Narratives

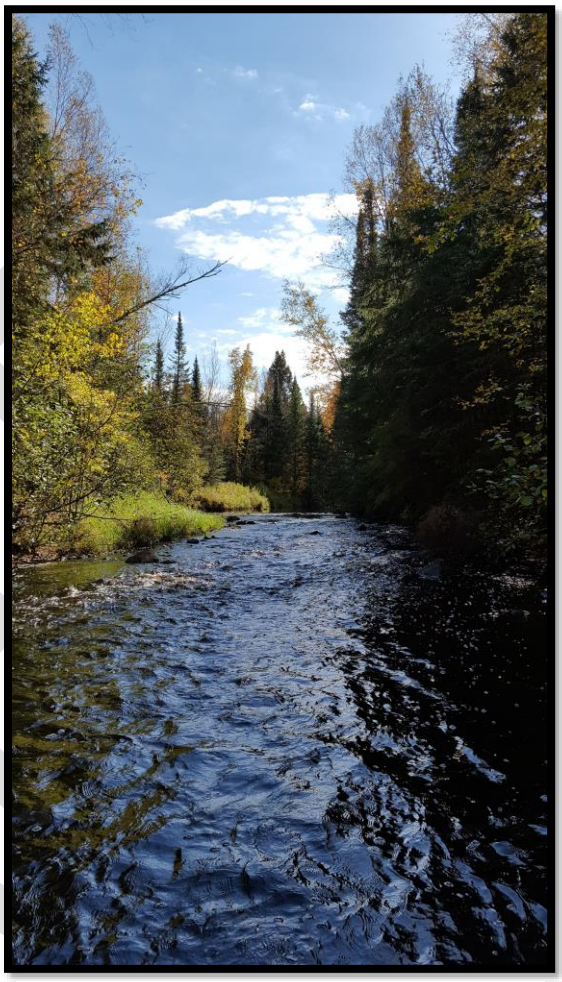
Waters in the Black River Watershed

Black River, 2836900

The 20-mile upper reach from just north of its headwaters in Black Lake on the Minnesota/Wisconsin border down to Interfalls Lake in Pattison State Park is classified as a Class III trout stream with numerous brook trout and a brown trout presence. The upper reaches of the river flow through relatively flat plain of clay and glacial stream deposits with numerous wetlands that stain the river dark before it passes over Little Manitou Falls, a 30-foot escarpment to Interfalls Lake. Downstream of the lake, the river plunges over the Superior Escarpment at Big Manitou Falls. At 165 feet, this is the highest waterfall in the state and ends the trout portion of the river. Downstream of the falls, a few game fish are found as the river continues until it empties into the Nemadji. Burbot run up the river in winter to spawn. Stream bottom types range from sand and muck in the upper reaches, gravel and boulders in the middle reaches and silt and clay below the falls.

Pattison State Park discharges treated wastewater from an outfall at T47N R14W S21 NESE, which then flows to the Black River. This tributary has been proposed for classification as supporting limited aquatic life, to be listed in the update of NR104.

During survey work conducted as part of the coastal wetlands evaluation, two rare species of macroinvertebrate were found in the river and the overall taxa richness was high (25 or more species). The survey identified impoundment and low flows as factors potentially affecting water quality. Significant filamentous algae, and to a lesser extent slime and aquatic plants were present. (Epstein 1997).



Black River at Malchesky Rd, Photo by Craig Roesler, Wisconsin DNR

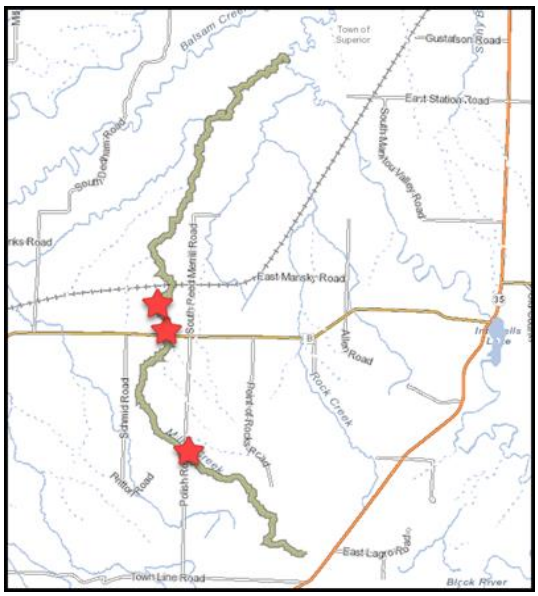
Little Black River, 2839900

This stream has sluggish origins in a willow and tag alder swamp. Downstream the gradient increases. Historically, brook and brown trout were stocked in the stream. In recent years it has been managed as a warm water forage fishery. This stream is tributary to the Black River.

During survey work conducted as part of the coastal wetlands evaluation, one rare species of macroinvertebrate was found in the river and the overall taxa richness was moderate (5 to 24 species) (Epstein 1997). The survey noted the water was turbid and the presence of point source pollution, pollution from septic systems and streambank erosion. At the survey site, the streambed was composed primarily of gravel, sand and rock

Miller Creek, 2837000

Miller Creek is a 3.52-mile cold transition headwater last monitored in 2015 and found to be in good condition. The stream is designated as a Class II trout stream. Three monitoring stations are located on the stream. Results from a 2007 macroinvertebrate study indicated "good" conditions, and a 2015 fish survey included brook trout, cheek chub, johnny darter, redside dance, slimy sculpin, and white sucker; 45% of species found in that survey were intolerant to pollution.



Miller Creek, 2837000

Rock Creek, 2837300

This small, clear-water stream with a steep gradient of 124 feet-per-mile drops from the Superior escarpment to join the Black River about two miles below Big Manitou Falls. From the town road crossing in the middle of Section 20 (T47 R14W) to the headwaters, this stream supports a reproducing brook trout population and the waterbody has been designated an exceptional resource water. Downstream from the town road to the mouth, the stream is considered a Class III trout fishery. In addition to brook trout, historic assessments have shown sculpin, creek chub and longnose dace to be present in the creek.

The stream is subject to seasonal flow extremes that can cause damage. The streambed is primarily sand gravel, clay and boulders in its headwaters area, becoming mostly sand and gravel in the lower stretches.

Black Lake, 2841200

Black Lake, in the Black and Upper Nemadji River Watershed, is a 82.10 acre lake that falls in Douglas County. This lake is managed for fishing and swimming and based on monitoring conducted in 2012, the lake water quality is considered Excellent.

Waters in the Black and Upper Nemadji River Watershed

Balsam Creek, 2841400

This stream originates in wetlands on the state border and flows about 18 miles to where it meets the Nemadji River. From the headwaters to falls at T46N R15W S29 NENE the river is classified as supporting a reproducing trout fishery and has been listed as an exceptional resource water in NR102 for its numerous brook trout. The 15-foot falls are a migratory barrier for trout, thus all brook trout upstream of the falls are thought to be from native populations. From the falls downstream about 12 miles until a town road crossing, the stream is classified a Class II brook and brown trout fishery, becoming a Class III trout fishery from that road crossing to where the creek empties into the Nemadji.

The upper part of the creek flows through swampy areas and has a stream bed composed mainly of clay and silt. Downstream, the stream flows through deep ravines and can be flashy. The bottom types become predominantly sand, gravel, clay and boulders. Historically, cattle have had access to the stream in upper parts of the watershed and compounded in-stream pollution and erosion problems. Principal tributaries to this creek are Little Balsam Creek, Empire Creek and two unnamed Class I trout streams.

Little Balsam Creek, 2841700

This high-quality trout stream is classified as an exceptional resource water. It supports a reproducing brook and brown trout fishery its five-mile length until it empties into Balsam Creek. Historically, some rainbow trout occurred, likely from Lake Superior. Most of the stream flows through steep ravines and it experiences annual damaging floods. Most of the streambed is sand, gravel and boulders. Historically, the major in-stream spawning areas have been south of the town road bridge west of the Village of Patzau. During survey work conducted as part of the coastal wetlands evaluation, two rare species of macroinvertebrate were found in the river and the overall taxa richness was moderate (5 to 24 species) (Epstein 1997).

Table 11. Monitored and Assessed Waters in the Black and Upper Nemadji River Watershed

WATERS ID	Name	Start Mile	End Mile	Size	WBIC	Monitored	Condition	Trout	O/ERW
18978	Big Balsam Creek	0	3.17	3.2 Miles	2841400	2015	Good	CLASS III	
17483	Big Balsam Creek	3.17	19.68	16.5 Miles	2841400	2015	Excellent	CLASS II	
20551	Black Lake			82.1 Acres	2841200	2012	Excellent		
17476	Black River	0	7.44	7.4 Miles	2836900	2016	Excellent	CLASS III	
17477	Black River	7.44	31.11	23.7 Miles	2836900	2016	Excellent	CLASS III	
20391	Breitzman Lake			13.8 Acres	2756700	2017	Excellent		
17487	Clear Creek	0	5.6	5.6 Miles	2842800	2015	Good		
891600	Interfalls Lake			23.3 Acres	2838000	2018	Fair		
18979	Little Balsam Creek	0	4.56	4.6 Miles	2841700	2019	Excellent	CLASS I	ERW
17481	Little Black River	0	4.63	4.6 Miles	2839900	2016	Excellent		
17478	Miller Creek	0	3.52	3.5 Miles	2837000	2015	Good		
17488	Mud Creek	0	4.92	4.9 Miles	2843000	2015	Good	CLASS II	
17456	Lower Nemadji River	0	38.2	38.2 Miles	2835300	2016	Poor		
20314	Reichuster Lake			13.6 Acres	2838700	2012	Excellent		
18977	Rock Creek	0	2.38	2.4 Miles	2837300	2015	Good	CLASS III	
18980	So. Fork Nemadji River	0	3.65	3.7 Miles	2843400	2015	Excellent		
17484	Unnamed Trib. Balsam Ck. T47n R15w S23	0	4.34	4.3 Miles	2841500	2015	Good	CLASS I	ERW

Appendix C: Black River and Upper Nemadji Watershed Fish and Aquatic Life Use Attainment

WATERS ID	Stream Name	WBIC	Local Waterbody Name	Start Mile	End Mile	Current Use	Attainable Use	Supporting Attainable Use	Designated Use	Supporting Designated Use	Assessment	Qual	DNR Category
18978	Balsam Creek	2841400	Balsam Creek (Big Balsam)	0	3.17	Class III Trout	FAL	Fully Supporting	Default FAL	NR102 Classification	Monitored	B1, B3	Category 2
17483	Balsam Creek	2841400	Balsam Creek (Big Balsam)	3.17	19.68	Cold (Class II Trout)	Cold (Class II Trout)	Fully Supporting	Cold	1980 Trout Book Classification	Monitored	B1, B3, B2	Category 2
305157	Balsam Creek	2841400	Balsam Creek (Big Balsam)	19.68	22.29	Cold (Class I Trout)	Cold (Class I Trout)	Not Assessed	Cold	1980 Trout Book Classification	Evaluated: Watershed Tables	B1	Category 3
20551	Black Lake	2841200	Black Lake	0	82.1	Shallow Lowland	FAL	Supporting	Default FAL	NR102 Classification	Monitored	P1	Category 2
938090	Black Lake Bog	-999991	Black Lake Bog	0	52.38	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3
17476	Black River	2836900	Black River	0	7.44	Class III Trout	FAL	Fully Supporting	Default FAL	NR102 Classification	Monitored	B1, B3, B2	Category 2
17477	Black River	2836900	Black River	7.44	31.11	FAL	Class III Trout	Fully Supporting	Cold	1980 Trout Book Classification	Monitored	P4, B1, B3	Category 2
1464599	Black River	2836900	Black River	31.11	35.34	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3
20391	Breitzman Lake	2756700	Breitzman Lake	0	13.77	Deep Seepage	FAL	Fully Supporting	Default FAL	NR102 Classification	Evaluated: Modeled Data	P1	Category 2
17487	Clear Creek	2842800	Clear Creek	0	5.6	FAL	FAL	Supporting	Default FAL	NR102 Classification	Monitored	B1	Category 2
17485	Empire Creek	2841600	Empire Creek	0	4.66	Cold (Class I Trout)	Cold (Class I Trout)	Not Assessed	Cold	1980 Trout Book Classification	Evaluated: Watershed Tables	B1	Category 3
1455339	Interfalls Lake	2838000	Pattison Beach (State Park)	0	0.07	Impounded Flowing Water	FAL	Not Assessed	Default FAL	NR102 Classification	Monitored	B1	Category 5A
891600	Interfalls Lake	2838000	Interfalls Lake	0	23.29	Impounded Flowing Water	FAL	Supporting	Default FAL	NR102 Classification	Monitored	B1	Category 2
18979	Little Balsam Creek	2841700	Little Balsam Creek	0	4.56	Cold (Class I Trout)	Cold (Class I Trout)	Fully Supporting	Cold	1980 Trout Book Classification	Monitored	B1, B3, B2	Category 2

WATERS ID	Stream Name	WBIC	Local Waterbody Name	Start Mile	End Mile	Current Use	Attainable Use	Supporting Attainable Use	Designated Use	Supporting Designated Use	Assessment	Qual	DNR Category
1519437	Little Balsam Creek	2841700	Little Balsam Creek	4.56	4.97	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3
17481	Little Black River	2839900	Little Black River	0	4.63	FAL	WWFF	Fully Supporting	Default FAL	NR102 Classification	Monitored	B1, P3, B3	Category 2
17478	Miller Creek	2837000	Miller Creek	0	3.52	FAL	WWFF	Fully Supporting	Default FAL	NR102 Classification	Monitored	B1, B3	Category 2
17479	Miller Creek	2837000	Miller Creek	3.52	6.53	Cold (Class II Trout)	Cold (Class II Trout)	Not Assessed	Cold	1980 Trout Book Classification	No Assessment on File	B1	Category 3
17488	Mud Creek	2843000	Mud Creek	0	4.92	FAL	FAL	Fully Supporting	Default FAL	NR102 Classification	Monitored	B1, B4, T2	Category 2
17456	Nemadji River	2835300	Lower Nemadji River	0	38.2	WWSF	WWSF	Not Supporting	FAL Warmwater	NR102 Classification	Monitored	B1, B4	Category 5A
20314	Reichuster Lake	2838700	Reichuster Lake	0	13.56	Shallow Seepage	FAL	Supporting	Default FAL	NR102 Classification	Monitored	P1	Category 2
18977	Rock Creek	2837300	Rock Creek	0	2.38	Class III Trout	FAL	Fully Supporting	Default FAL	NR102 Classification	Monitored	B1, B3	Category 2
17480	Rock Creek	2837300	Rock Creek	2.39	4.79	Cold (Class I Trout)	Cold (Class I Trout)	Not Assessed	Cold	1980 Trout Book Classification	No Assessment on File	B1	Category 3
18980	South Fork Nemadji River	2843400	Nemadji River, South Fork	0	3.65	FAL	FAL	Fully Supporting	Default FAL	NR102 Classification	Monitored	B1, B3, B2	Category 2
20350	Summit Lake	2775000	Summit Lake	0	6.38	Small	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3
6934735	Unnamed	5001131	Unnamed Stream	0	0.33	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934744	Unnamed	5001135	Unnamed Stream	0	0.37	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934753	Unnamed	5001156	Unnamed Stream	0	0.59	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934762	Unnamed	5001196	Unnamed Stream	0	0.51	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934771	Unnamed	5001202	Unnamed Stream	0	0.98	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934783	Unnamed	5001212	Unnamed Stream	0	0.48	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3

WATERS ID	Stream Name	WBIC	Local Waterbody Name	Start Mile	End Mile	Current Use	Attainable Use	Supporting Attainable Use	Designated Use	Supporting Designated Use	Assessment	Qual	DNR Category
6934792	Unnamed	5001226	Unnamed Stream	0	0.86	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935064	Unnamed	5001564	Unnamed Stream	0	1.72	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935076	Unnamed	5001568	Unnamed Stream	0	0.35	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935085	Unnamed	5001569	Unnamed Stream	0	0.49	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935094	Unnamed	5001574	Unnamed Stream	0	0.48	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935103	Unnamed	5001579	Unnamed Stream	0	0.63	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935112	Unnamed	5001584	Unnamed Stream	0	0.51	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935121	Unnamed	5001585	Unnamed Stream	0	0.64	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935130	Unnamed	5001587	Unnamed Stream	0	4.08	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935141	Unnamed	5001590	Unnamed Stream	0	0.43	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935150	Unnamed	5001591	Unnamed Stream	0	0.48	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908197	Unnamed	5001595	Unnamed Stream	0	0.26	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935159	Unnamed	5001601	Unnamed Stream	0	1.17	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935169	Unnamed	5001602	Unnamed Stream	0	0.26	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935179	Unnamed	5001608	Unnamed Stream	0	0.62	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935188	Unnamed	5001619	Unnamed Stream	0	1.85	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908206	Unnamed	5001624	Unnamed Stream	0	0.39	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908217	Unnamed	5001638	Unnamed Stream	0	0.17	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935202	Unnamed	5001639	Unnamed Stream	0	0.36	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935211	Unnamed	5001642	Unnamed Stream	0	2.38	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3

WATERS ID	Stream Name	WBIC	Local Waterbody Name	Start Mile	End Mile	Current Use	Attainable Use	Supporting Attainable Use	Designated Use	Supporting Designated Use	Assessment	Qual	DNR Category
6908225	Unnamed	5001647	Unnamed Stream	0	0.28	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908234	Unnamed	5001655	Unnamed Stream	0	0.06	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934801	Unnamed	5001243	Unnamed Stream	0	0.82	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934810	Unnamed	5001252	Unnamed Stream	0	0.35	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934819	Unnamed	5001260	Unnamed Stream	0	0.38	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934828	Unnamed	5001267	Unnamed Stream	0	0.74	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934838	Unnamed	5001277	Unnamed Stream	0	0.67	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934847	Unnamed	5001286	Unnamed Stream	0	0.54	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934856	Unnamed	5001287	Unnamed Stream	0	0.69	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934865	Unnamed	5001293	Unnamed Stream	0	0.37	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934955	Unnamed	5001488	Unnamed Stream	0	0.76	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934964	Unnamed	5001495	Unnamed Stream	0	0.5	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934973	Unnamed	5001496	Unnamed Stream	0	0.62	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934982	Unnamed	5001505	Unnamed Stream	0	1.63	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934991	Unnamed	5001511	Unnamed Stream	0	0.83	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935000	Unnamed	5001519	Unnamed Stream	0	1.72	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935009	Unnamed	5001532	Unnamed Stream	0	0.87	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935019	Unnamed	5001538	Unnamed Stream	0	0.65	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935028	Unnamed	5001543	Unnamed Stream	0	0.83	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935037	Unnamed	5001549	Unnamed Stream	0	1.01	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3

WATERS ID	Stream Name	WBIC	Local Waterbody Name	Start Mile	End Mile	Current Use	Attainable Use	Supporting Attainable Use	Designated Use	Supporting Designated Use	Assessment	Qual	DNR Category
6935046	Unnamed	5001551	Unnamed Stream	0	1.19	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935055	Unnamed	5001552	Unnamed Stream	0	0.51	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935220	Unnamed	5001664	Unnamed Stream	0	0.87	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
35514	Unnamed	5501328	Local Water	0	5.25	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3
30048	Unnamed	5501367	Local Water	0	3.87	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3
34727	Unnamed	5501728	Local Water	0	2.46	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3
6935380	Unnamed	5002230	Unnamed Stream	0	0.56	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935389	Unnamed	5002238	Unnamed Stream	0	0.28	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908423	Unnamed	5002246	Unnamed Stream	0	0.57	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908432	Unnamed	5002250	Unnamed Stream	0	0.61	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908444	Unnamed	5002276	Unnamed Stream	0	1.05	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908454	Unnamed	5002286	Unnamed Stream	0	0.94	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908465	Unnamed	5002308	Unnamed Stream	0	0.13	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908472	Unnamed	5002310	Unnamed Stream	0	0.17	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908479	Unnamed	5002355	Unnamed Stream	0	0.26	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908178	Unnamed	2843200	Unnamed Stream	0	6.31	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6907865	Unnamed	2839100	Unnamed Stream	0	3.32	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6907882	Unnamed	2839200	Unnamed Stream	0	1.96	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3

WATERS ID	Stream Name	WBIC	Local Waterbody Name	Start Mile	End Mile	Current Use	Attainable Use	Supporting Attainable Use	Designated Use	Supporting Designated Use	Assessment	Qual	DNR Category
6907892	Unnamed	2839300	Unnamed Stream	0	2.91	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6907909	Unnamed	2839400	Unnamed Stream	0	0.85	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6907919	Unnamed	2839500	Unnamed Stream	0	2.61	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6907932	Unnamed	2839600	Unnamed Stream	0	2.41	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6907946	Unnamed	2839700	Unnamed Stream	0	1.31	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6907956	Unnamed	2839800	Unnamed Srteam	0	0.32	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6907965	Unnamed	2840000	Unnamed Stream	0	1.06	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6907974	Unnamed	2840100	Unnamed Stream	0	1.74	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6907986	Unnamed	2840200	Unnamed Stream	0	1.28	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6907995	Unnamed	2840400	Unnamed Stream	0	0.82	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908004	Unnamed	2840500	Unnamed Stream	0	1.44	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908021	Unnamed	2840600	Unnamed Stream	0	2.49	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908034	Unnamed	2840700	Unnamed Stream	0	0.39	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908043	Unnamed	2840800	Unnamed Stream	0	0.76	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908052	Unnamed	2840900	Unnamed Stream	0	1.06	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908061	Unnamed	2841000	Unnamed Stream	0	2.84	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908070	Unnamed	2841100	Unnamed Stream	0	2.08	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908089	Unnamed	2841300	Unnamed Stream	0	0.86	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908101	Unnamed	2841800	Unnamed Stream	0	1.23	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908110	Unnamed	2841900	Unnamed Stream	0	2.15	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3

WATERS ID	Stream Name	WBIC	Local Waterbody Name	Start Mile	End Mile	Current Use	Attainable Use	Supporting Attainable Use	Designated Use	Supporting Designated Use	Assessment	Qual	DNR Category
6908122	Unnamed	2842000	Unnamed Stream	0	1.16	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908132	Unnamed	2842100	Unnamed Stream	0	1.11	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
17486	Unnamed	2842200	Unnamed Trib To Balsam Creek	0	1.53	FAL	Cold (Class I Trout)	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	B1	Category 3
6908143	Unnamed	2842400	Unnamed Stream	0	1.06	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
20436	Unnamed	2842500	Un Lake	0	2.8	Small	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3
6908158	Unnamed	2842600	Unnamed Stream	0	2.17	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908169	Unnamed	2842700	Unnamed Stream	0	1.17	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6907766	Unnamed	2837200	Unnamed Stream	0	3.88	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
20176	Unnamed	2837500	Un Lake	0	2.17	Small	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3
6907780	Unnamed	2837600	Unnamed Stream	0	2.04	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6907792	Unnamed	2838200	Unnamed Stream	0	1.6	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6907805	Unnamed	2838300	Unnamed Stream	0	2.24	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
20283	Unnamed	2838400	Un Lake	0	7.74	Small	FAL	Supporting	Default FAL	NR102 Classification	Evaluated: Modeled Data	NA	Category 3
6907825	Unnamed	2838500	Unnamed Stream	0	1.97	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
20317	Unnamed	2838600	Un Lake	0	2.29	Small	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3
6907842	Unnamed	2838800	Unnamed Stream	0	0.65	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6907852	Unnamed	2838900	Unnamed Stream	0	1.37	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3

WATERS ID	Stream Name	WBIC	Local Waterbody Name	Start Mile	End Mile	Current Use	Attainable Use	Supporting Attainable Use	Designated Use	Supporting Designated Use	Assessment	Qual	DNR Category
20392	Unnamed	2839000	Un Lake	0	3.92	Small	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3
6908396	Unnamed	5002049	Unnamed Stream	0	0.44	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908405	Unnamed	5002061	Unnamed Stream	0	0.46	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908412	Unnamed	5002109	Unnamed Stream	0	0.62	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935364	Unnamed	5002177	Unnamed Stream	0	0.58	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935371	Unnamed	5002184	Unnamed Stream	0	0.56	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935275	Unnamed	5001690	Unnamed Stream	0	0.48	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935284	Unnamed	5001705	Unnamed Stream	0	1.3	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935294	Unnamed	5001718	Unnamed Stream	0	1.4	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935303	Unnamed	5001719	Unnamed Stream	0	0.66	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935312	Unnamed	5001722	Unnamed Stream	0	0.84	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935321	Unnamed	5001727	Unnamed Stream	0	0.65	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935330	Unnamed	5001729	Unnamed Stream	0	0.66	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935339	Unnamed	5001739	Unnamed Stream	0	0.5	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908298	Unnamed	5001741	Unnamed Stream	0	1.13	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935348	Unnamed	5001754	Unnamed Stream	0	0.72	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908310	Unnamed	5001763	Unnamed Stream	0	0.45	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908243	Unnamed	5001669	Unnamed Stream	0	0.07	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935229	Unnamed	5001671	Unnamed Stream	0	0.68	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3

WATERS ID	Stream Name	WBIC	Local Waterbody Name	Start Mile	End Mile	Current Use	Attainable Use	Supporting Attainable Use	Designated Use	Supporting Designated Use	Assessment	Qual	DNR Category
6935238	Unnamed	5001672	Unnamed Stream	0	1.04	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935247	Unnamed	5001675	Unnamed Stream	0	1.21	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908252	Unnamed	5001677	Unnamed Stream	0	0.03	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935257	Unnamed	5001678	Unnamed Stream	0	0.12	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935264	Unnamed	5001679	Unnamed Stream	0	2.05	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908261	Unnamed	5001680	Unnamed Stream	0	0.22	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908270	Unnamed	5001682	Unnamed Stream	0	1.02	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908281	Unnamed	5001687	Unnamed Stream	0	0.18	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
30064	Unnamed	5501800	Local Water	0	21.2	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3
20147	Unnamed	2825475	Un Lake	0	1.7	Small	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3
20182	Unnamed	2825490	Un Lake	0	2.3	Small	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3
20348	Unnamed	2810100	Un Lake	0	1.02	Small	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3
20316	Unnamed	2810200	Un Lake	0	4.71	Small	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3
20356	Unnamed	2810600	Un Lake	0	0.11	Small	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3
1519442	Unnamed	5001871	Little Balsam Creek	0	0.46	Cold (Class I Trout)	Cold (Class I Trout)	Not Assessed	Cold	1980 Trout Book Classification	Evaluated: Watershed Tables	B1	Category 3
6908319	Unnamed	5001879	Unnamed Stream	0	0.17	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3

WATERS ID	Stream Name	WBIC	Local Waterbody Name	Start Mile	End Mile	Current Use	Attainable Use	Supporting Attainable Use	Designated Use	Supporting Designated Use	Assessment	Qual	DNR Category
6908328	Unnamed	5001908	Unnamed Stream	0	1.02	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908338	Unnamed	5001915	Unnamed Stream	0	0.47	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908347	Unnamed	5001947	Unnamed Stream	0	0.36	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908357	Unnamed	5001953	Unnamed Stream	0	0.1	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6935357	Unnamed	5001970	Unnamed Stream	0	0.87	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908367	Unnamed	5001978	Unnamed Stream	0	0.05	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908376	Unnamed	5002006	Unnamed Stream	0	1.02	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908387	Unnamed	5002022	Unnamed Stream	0	0.35	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934874	Unnamed	5001318	Unnamed Stream	0	1.79	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934883	Unnamed	5001336	Unnamed Stream	0	1.53	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934892	Unnamed	5001392	Unnamed Stream	0	0.49	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934901	Unnamed	5001399	Unnamed Stream	0	0.59	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934910	Unnamed	5001406	Unnamed Stream	0	1.52	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6908188	Unnamed	5001410	Unnamed Stream	0	0.21	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934919	Unnamed	5001435	Unnamed Stream	0	0.76	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934928	Unnamed	5001458	Unnamed Stream	0	0.59	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934937	Unnamed	5001474	Unnamed Stream	0	2.89	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
6934946	Unnamed	5001480	Unnamed Stream	0	0.55	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
30074	Unnamed	5502155	Local Water	0	6.83	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3

WATERS ID	Stream Name	WBIC	Local Waterbody Name	Start Mile	End Mile	Current Use	Attainable Use	Supporting Attainable Use	Designated Use	Supporting Designated Use	Assessment	Qual	DNR Category
20470	Unnamed	2801000	Un Lake	0	0.71	Small	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3
6908497	Unnamed	5002423	Unnamed Stream	0	0.17	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Not Assessed	NA	Category 3
17484	Unnamed	2841500	Unnamed Trib. To Balsam Ck. T47n R15w S23	0.01	4.34	Cold (Class I Trout)	Cold (Class I Trout)	Fully Supporting	Cold	1980 Trout Book Classification	Monitored	B1, B3	Category 2
1453645	Unnamed	2837100	Local Water	0.01	8.43	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	Evaluated: Watershed Tables	B1	Category 3
1453639	Unnamed	2837400	Local Water	0.02	1.84	FAL	FAL	Not Assessed	Default FAL	NR102 Classification	No Assessment on File	NA	Category 3

This table reflects the condition of waters in the study area watershed. This table data is stored in the Water Assessment Tracking and Electronic Reporting System (WATERS) and is updated on an ongoing basis via monitoring data and assessment calculations.

The following definitions apply:

Current Use – current condition of water based on monitoring data.
Attainable Use – "ecological potential" of water based on water type, natural community, lack of human-induced disturbances.
Supporting Use – decision on whether the water's current condition is supporting its designated use under "water quality standards".
Designated Use – the water's classified use under NR102, Wisconsin Water Quality Standards, for Fish and Aquatic Life.
Assessment – field indicates what type of data or information supports the decisions in the table (current, attainable, and supporting attainable).
Data Quality – Specific data areas used for the decision (see below)

P –Physical
B – Biological
C – Chemistry
H – Habitat
PA – Pathogen

Range 1-4 (1 – lowest level, 4 most sophisticated data collection)

DNR Category Is water meeting or not meeting standards

Category 2: Water meets at least 1 WQ standard,
Category 3: Insufficient data,
Category 4A: Water is impaired, TMDL in progress,
Category 5A: Water is impaired, TMDL required.
Category 5P: Water that has total phosphorus levels that exceed the state water quality standard, but which currently do not exhibit biological impairments.