

Mississippi River Headwaters One Watershed, One Plan	Policy/Advisory Committee Meeting #5	Date: June 27, 2019
		Time: 9:00am – 11:00am
		Location: Beltrami Administration Building, 701 Minnesota Street NW, Bemidji, MN 56601

Staff Support: Zach Gutknecht

Note taker: Megan FitzGerald

Invitees:

County Commissioners and Staff: Craig Gaasvig, Dick Downham, Davin Tinquist, Ted Van Kempen, Charlene Christenson, , Brent Rud, Zach Gutknecht, Megan FitzGerald, Daniel Swenson, John Ringle, Eric Buitenwerf, Dan Hecht.

SWCD Supervisors and Staff: Del Olson, David Peterson, Marcel Noyes, Ted Lovdhal, Clearwater SWCD Supervisor, Andy Arens, Kelly Condiff, William Lee, Chester Powell.

BWSR Staff: Chad Severts Board Conservationist, Jeff Hrubes Clean Water Specialist

Pre-work: [Review: Meeting Materials attached](#)

Please bring: 1W1P binder (Policy Committee)

Agenda Items

Topic	Purpose	Presenter	Time allotted
✓ Call to Order		Craig Gaasvig, Chair	9:00am
✓ Review and Approval of Agenda	DECISION	Craig Gaasvig, Chair	5 min.
✓ Financial Update	DISCUSSION	Staff Support	5 min.
✓ Advisory Committee Update	DISCUSSION	Staff Support	20 min.
✓ Draft Vision Statement	DISCUSSION/ DECISION	Staff Support	10 min.
✓ Land and Water Resource Inventory Update	DDISCUSSION	Staff Support	15 min.
✓ County Comp Plan Review (consultant)	DECISION	Staff Support	20 min.
✓ Bus Tour	DESCISION	Staff Support	20 min.
✓ Adjourn	DESCISION	Craig Gaasvig, Chair	5 min.

Attachments to agenda:

- Financial Summary, Pages 3 & 4
- DRAFT Vision Statement, Page 5
- DRAFT Land and Water Resource Inventory Overview, Pages 6 - 26
- DRAFT Issue Statements, Pages 26 - 29
- HRDC Comp Plan Example and Cost Break Down, Pages 30 - 41
- Bus Tour Options, Pages 42 - 46

Policy Committee Ground Rules and Expectations

In addition to following the requirements of the Memorandum of Agreement and bylaws, Policy Committee Members will:

1. Actively prepare for, attend, and participate in all scheduled meetings* of the Policy Committee.
2. Actively engage in the decision-making process for watershed-based planning with the understanding that goals, objectives, and action items of the water plan must be prioritized, targeted, and measureable.
3. Initiate and/or assist with providing opportunities for constituents to be appraised of updated progress of the watershed-based planning process.
4. Regularly update their respective Boards on the progress of the watershed planning process.
5. Utilize the technical resources of their respective entities to assist and inform their decisions in the water planning process.

Beltrami County



ACCOUNT ACTIVITY REPORT

Page Break Option: 2 1 - Page Break by FUND
2 - Page Break by DEPT Print Service Dates: No

Sort: 1st: 2nd 3rd 4th 5th 6th F - G/L Object Within Fund Number
G T D N W G - G/L Account Number
P - G/L Object Within Dept Number
D - Transaction Date
M - G/L Month & Year
N - Vendor/Payer Name
T - Type Of Transaction
W - Receipt/Warrant Number

Range Subtotals: 1 1 - No Subtotals
2 - Detail and Subtotals by OBJECT Range
3 - Subtotals only by OBJECT Range
4 - Account Totals and Subtotals by OBJECT Range
5 - Account Totals and Subtotals by PROGRAM Range

Report Basis: 1 Cash Only This Basis?: Yes

Print YTD Totals: No Type of Report: 1 1 - DETAIL
2 - ABBREVIATED

G/L Months: From: 01/2019 Thru: 06/2019

Comment:
FUND Range From 74 Thru 74
DEPT Range From 624 Thru 624
OBJECT Range From 6120 Thru 6999

Beltrami County

ACCOUNT ACTIVITY REPORT

From: 01/2019 Thru: 06/2019

Report Basis: 1



Tran	Vendor	G/L	Receipt/Warrant			AMOUNT	Description / Service Dates	Invoice	Accr	
Type		Mont	NUMBER	DATE	Seq			e	Cd	Basis R1R2
PROGRAM 000										
74-624-000-0000-6411 - Food & Beverages										
DI	351-Raphaels Bakery Cafe	05/2019	147383	05/08/2019	333	461.54	Lunch 1W1P April Meeting	8277		1
					Total	461.54				
74-624-000-0000-6413 - Other General Supplies										
DI	796-Fitzgerald/Megan	05/2019	147297	05/08/2019	333	30.95	IWIP Mtg Supplies	4/24/2019		1
DI	796-Fitzgerald/Megan	05/2019	147297	05/08/2019	333	33.00	IWIP Tent Cards	4/22/2019		1
					Total	63.95				
74-624-000-0000-6802 - Miscellaneous Expense										
DI	10553-Gutknecht/Zachrie	05/2019	147559	05/22/2019	333	352.60	Website for Mississipp Headwater	5/13/19		1
DI	10553-Gutknecht/Zachrie	06/2019	147759	06/05/2019	333	25.76	Water for %K %D'A YHj b[g	5/2/19		1
					Total	378.36				
PROGRAM 000 Total						903.85				
DEPT 624 - 1W1P Mississippi Total						903.85				
Fund 74 - Beltrami Swcd Total						903.85				
Final Total						903.85				
5 Transactions		3 Accounts								

DRAFT VISION: *Mississippi Headwaters communities answering the call to protect and improve:
Our waters, forests, economy, and future.*

This is a draft

At this point I'm looking for more contextual changes we will worry about the design and aesthetics after the content is more finalized and will likely consult our web designer, Dain, for assistance. I also need to get the pictures from the citizen photo contest before getting the final design done. I have made a few maps I think are sufficient but I can tweek them and ask Mitch Brinks for assistance.

Still trying to recycle information and content from previous plans to not reinvent the wheel and lightly adjust or modify the text a little, so that is common throughout.

Overall I tried to redirect my attention to more unique factors of the watershed and inventory/narrative what we have and less data driven context because that will be addressed further in the plan. This is something we discussed at the Steering Team and Advisory Committee level.

Differences from first draft:

Added:

- Cisco Refuge Lake Text & Graphic
- Muskie Lake Text & Graphic
- Trout Stream text & Graphic
- Trout Lake Text & Graphic
- Public Lands/Ownership Map
- Introduction Section Modifications
- re-structured sections

Removed:

- NRCS Land Ownership Type Section (substituted for new Public Lands/Ownership Map)
- Stormwater systems, drainage systems and control structures (this will be addressed later in the plan?)
- Water Monitoring Data section (this will be addressed later in the plan?)
- Human Element Section, going for more incorporated approach rather than a separate section
- Citizen Water Monitoring Section (getting to long need to make cuts)
- Priority Lake Section (Will be covered later in the plan)
- Wild Rice information section (cut for length)

Please have comments or suggestions to me no later than one week after the respective meeting.

A Land and Water Resource Narrative

The Story Of The Mississippi River Headwaters Watershed

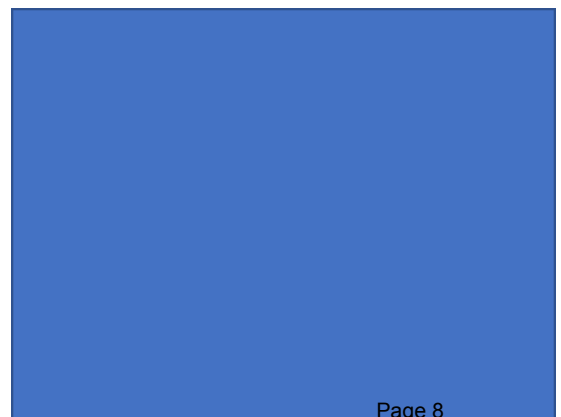
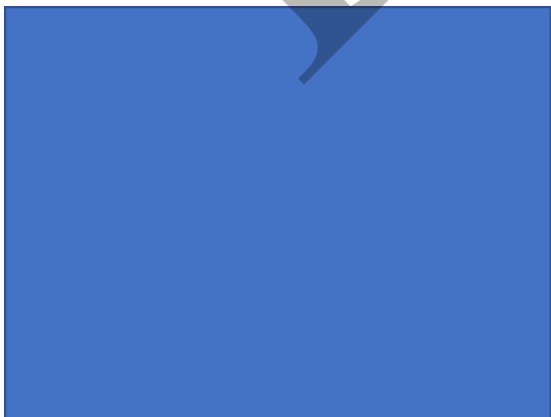


The Mississippi River Headwaters Watershed

The Mississippi River Headwaters Watershed (MRH Watershed) is a watershed located in the Upper Mississippi River Basin. The MRH Watershed (HUC – 07010101) drains 1,255,105 acres (1,961 square miles) of land in Northcentral MN. The MRH Watershed is bordered by 7 other major watersheds (HUC 8's) and crosses the boundaries of 6 counties: Becker, Beltrami, Cass, Clearwater, Hubbard and Itasca. The MRH Watershed is rich in surface water resources, with approximately 685 river miles and containing more than 1,000 lakes with a total acreage of 180,375. This wealth of water resources includes some of Minnesota's most famous lakes and streams including two of the ten largest inland lakes (Cass and Winnibigoshish). There are many lakes and rivers in the watershed, offering exceptional fishing, boating, and other recreational opportunities. Every year, year round, people flock to this watershed in search of many fish species, especially the walleye. People also visit this watershed to enjoy the vast forest land in the area. This watershed is unique and special for an even bigger reason, this watershed is the birth place of the mighty Mississippi River that runs 2,320 miles before terminating into the Gulf of Mexico (Blackburn, Julie, et al "Mississippi River Headwaters Watershed Restoration and Protection Strategy Report" Minnesota Pollution Control Agency, August 2018).



Insert Citizen Photo Contest Pictures Submitted Here 1 - 4?



Introduction Continued



© NRCS

County Totals

County	Acres in HUC	% HUC
Beltrami	413,151	32.9%
Clearwater	123,387	9.8%
Itasca	397,207	31.6%
Cass	153,120	12.2%
Hubbard	158,439	12.6%
Becker	9,801	0.8%
Total acres:	1,255,105	100%

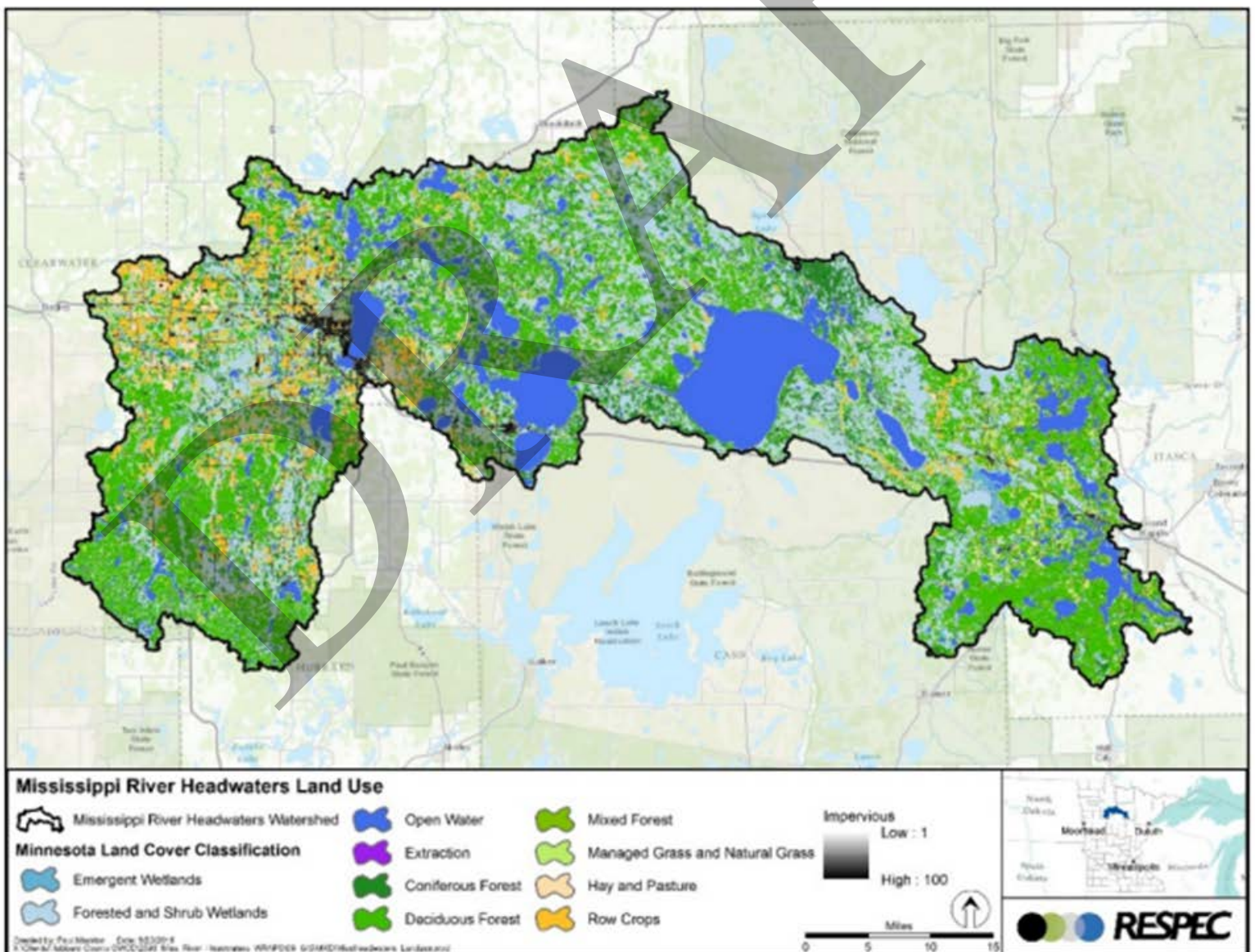
© NRCS

The MRH Watershed is a heavily forested watershed, with approximately 58% of the land within this cover type. Forestland is very important in keeping our surface and drinking water resources clean. The MRH Watershed has some of the finest water resources in the country, which is a direct correlation to the natural 38 hydrological benefits that a sustainable forested landscape provides. As the name implies, this watershed contains the Headwaters of the Mississippi River. Along with the numerous recreational opportunities that it provides and supports, approximately 1.5 million Minnesotans downstream of the MRH Watershed rely on the Mississippi River for their drinking water supply, as do several million more citizens in states south of our border. In addition to protecting the high quality water resources of the area, the MRH Watershed forestlands support the economy of the region through various forest products and recreational use, while providing critical habitat for numerous flora and fauna species that characterize this region of the state. With the multitude of benefits provided by these forestlands, it is critical that we work to sustain these lands to the extent possible into the future (USDA, NRCS “ Rapid Watershed Assessment Mississippi Headwaters (MN) HUC: 7010101”).

Insert Citizen Photo Contest Entry Here – 1 – Horizontal orientation lake or forest scene

Land Use

The most prominent land use in the watershed is forested (58%), followed by wetlands (15%), and open water (14%), agricultural land use within the watershed is moderate, accounting for approximately 10% of the available acres and urban only accounting for around 3%. The largest city, Bemidji, has a population of 14,942 (2016). Other larger cities in the watershed include Cohasset (population 2,728), Deer River (population 933), and Cass Lake (population 749). The following smaller towns are also in this watershed: Bass Brook, Becida, Lake George, Shevlin, Solway, Tenstrike, Turtle River, Wilton and Zemple. Approximately 44% of the land in this watershed is privately owned, with the remaining portion being state, county or federal public land, or held by tribal landowners. The total population count of the watershed is around 48,410 people with an estimated 586 farms (USDA, NRCS).



Land Use - History

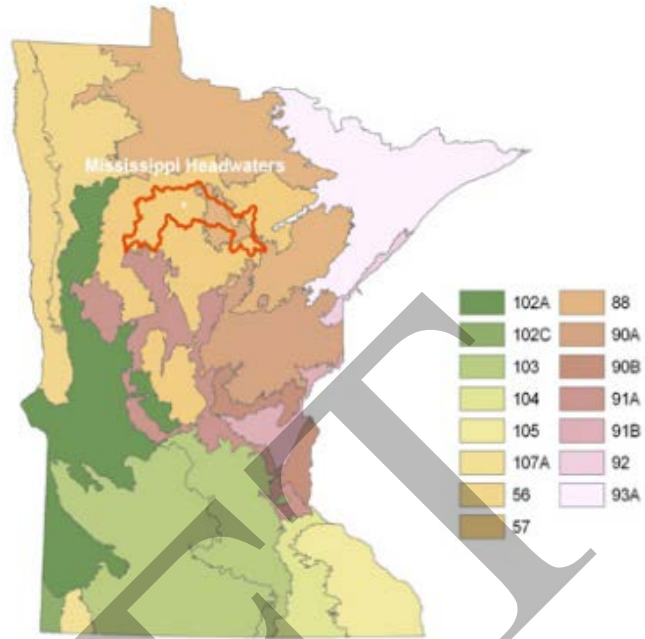
Mature coniferous forests, abundant lakes, and low-lying wetlands dominated The Mississippi River Headwaters Watershed. The Dakota tribe was first to occupy the area in the early 1600's, followed by the Ojibwa Bands in the mid 1700's. The area was rich in fur and timber, which quickly drew the interest of European settlement. Prior to the 18th century, the fur trade was booming and became one of the main economic providers of the time. By the end of the century, over-trapping and a lower demand quickly dissolved the fur trade. During the early to mid-1800s, logging took over as the primary industry in North Central Minnesota. Large stands of old growth white pine drew thousands of loggers to the area. As technology advanced and the speed of log transportation increased, timber stands were quickly cleared, in return opening new land for settlement. Settlers began pushing further north into northern Minnesota; land that was occupied by the Ojibwa. In 1855, a treaty with the Mississippi Band of Chippewa Indians ceded their lands within northern Minnesota to the United States Government. The treaty was responsible for the creation of the Leech Lake Indian Reservation (MAICC, 2016). However, the treaties in place at the time did not allow loggers to harvest the any of abundant red and white pine stands on reservation lands. This changed in 1889 by ways of the Nelson Act, which opened reservation lands to logging. After years of extensive timber harvest, there was a concern over runaway logging throughout the reservation (MAICC, 2016). This prompted the creation of the 225,000 acre Minnesota National Forest in 1908, which was established to protect the remaining white and red pine on the reservation. In 1928, the forest was renamed Chippewa National Forest; today the forest consists of over 660,000 acres across Itasca, Cass, and Beltrami counties. (MAICC 2016). Despite the extensive amount of logging that has taken place throughout the watershed, the current land use remains dominated by forest (58%), with numerous wetlands (15%) and open water (14%) mixed throughout. Development across the watershed is low (2.9%) and is generally concentrated around the towns of Bemidji, Cass Lake, Cohasset, and Deer River. (Anderson, Chad, et al. "Mississippi River (Headwaters) Watershed Monitoring and Assessment Report" Minnesota Pollution Control Agency, January 2017.)



Photograph Collection, 1912, Minnesota Historical Society, Location No. HD5.41 r61 Negative No. 28817

Topography, Soils and General Geology

The Mississippi River (Headwaters) Watershed lies in the eastern portion of the Northern Lakes and Forest (NLF) Ecoregion. The NLF is dominated by relatively nutrient-poor glacial soils, which support the growth of coniferous and northern hardwood forests (Omernik, 1988). This heavily forested ecoregion is made-up of many steep, rolling hills, broad lacustrine basins, and extensive sandy outwash plains (Omernik, 1988). Soils within this ecoregion are generally thicker than those to the north and lack the arability of soils in the adjacent ecoregions to the south (Omernik, 1988). Lakes are numerous throughout the NLF ecoregions and are clearer and less productive than those that are located to the south (Omernik, 1988). Throughout the NLF many Precambrian granitic bedrock outcropping exists between shallow-to-deep moraine deposits left by the last glacier retreat that dates back to 12,000 years ago (Anderson, Chad, et al. “Mississippi River (Headwaters) Watershed Monitoring and Assessment Report” Minnesota Pollution Control Agency, January 2017).



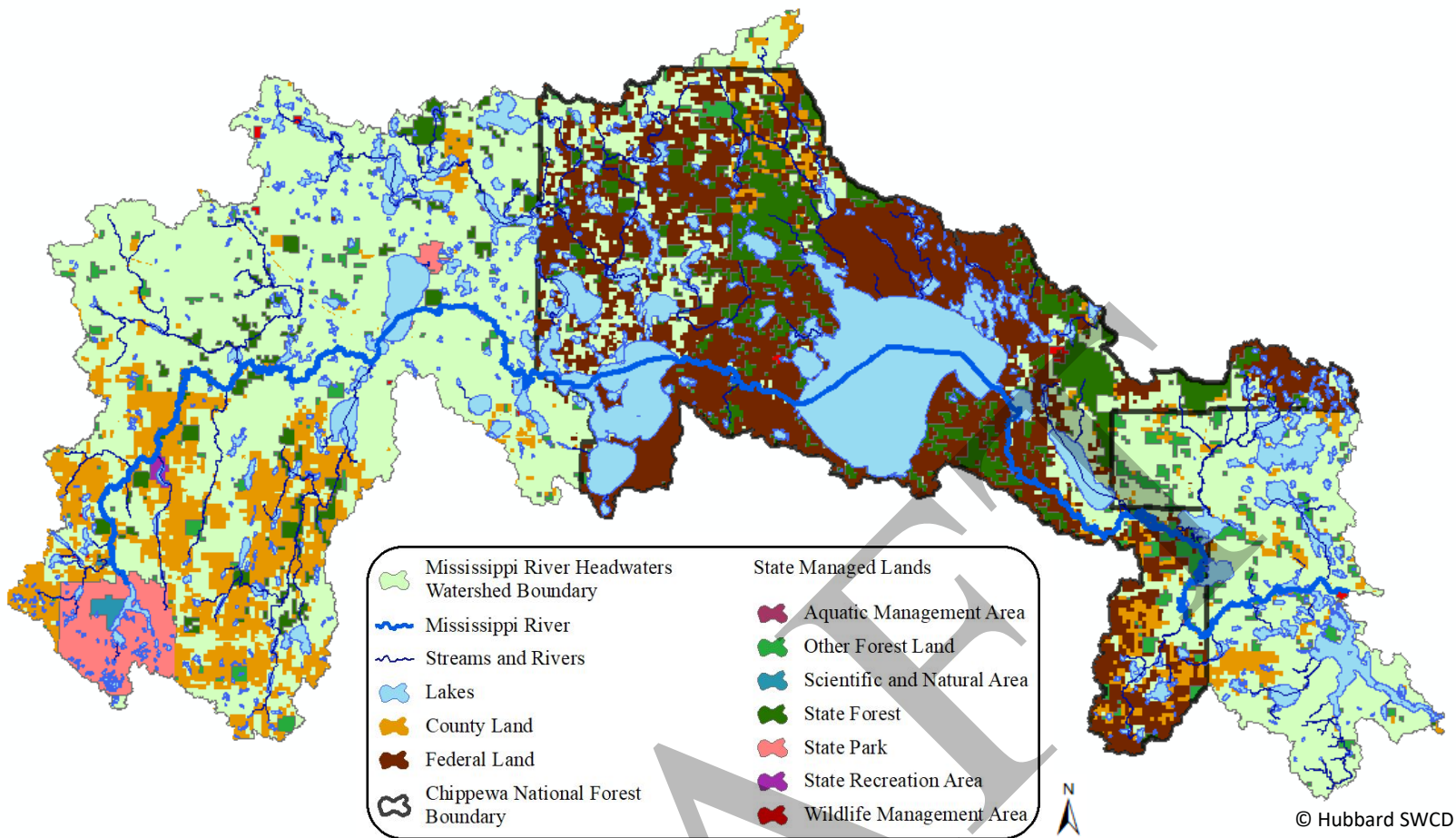
©NRCS

Soils within the watershed are primarily Alfisols, which generally form underneath deciduous forests underlain by silty sands, and are present in woodland and mixed woodland and cropland areas. Entisols, which are sandy soils commonly found in glacial outwash and alluvium and Histosols, which are commonly yellow-brown to dark brown organic soils found in wetlands. Bedrock geology in the watershed consists of primarily Precambrian crystalline rocks (Sims and Morey, 1972, Stark et al, 1996). The Mississippi River Headwaters Watershed lies within calcareous glacial deposits associated with the Des Moines Lobe and the Wadena Lobe Associations (USDA, NRCS “ Rapid Watershed Assessment Mississippi Headwaters (MN) HUC: 7010101”).



Logs in a boom on Cass Lake. Photograph Collection, Postcard, 1920. Minnesota Historical Society, Location No. HD5.43 r5 Negative No. 165

Public Lands In The Mississippi River Headwaters Watershed



© Hubbard SWCD

Ownership Type	Acres	% of HUC
Conservancy	-	-
County	5,288	0.4
Federal	225,472	18.0
State	452,915	36.1
Other	4,880	0.4
Tribal	10,599	0.8
Private Major	39,917	3.2
Private	516,035	41.1
Total Acres:	1,255,105	100

© NRCS

The Mississippi River Headwaters Watershed covers an area of 1,255,105 acres. Approximately 41% of the land in the watershed is owned by private landholders (516,035 acres). The second largest ownership type is State, with approximately 452,915 acres (36%), followed by Federal with 225,472 acres (18%), Private Major with 39,917 acres (3%), and Tribal, with 10,599 acres (0.8%). County lands account for the smallest ownership percentage, with 5,288 acres (0.4%), though there are an additional 4,880 acres of miscellaneous “Other” Public lands (0.4%). Ownership data shows no major conservancy land holdings in the region. Land use by ownership type is represented in the table to the left (USDA, NRCS “Rapid Watershed Assessment Mississippi Headwaters (MN) HUC: 7010101”).

Insert Citizen Submitted Picture From Contest

Public Land Types Of the MRH Watershed



WMA (Wildlife Management Area)
these are parcels of public land that are open to hunting, fishing and wildlife viewing all of which have major contributions to Minnesota’s tourism. These areas also provide crucial wildlife habitat. We have sixteen (16) Wildlife Management Areas in the MRH Watershed:

- Balsam-Deer Islands WMA
 - Bass Brook WMA
 - Bemidji Slough WMA
 - Birch Creek WMA
- Bowstring Deer Yard WMA
 - Daniel Lake WMA
- Henry O. Bjoring WMA
- James B. Fern WMA
- Long Lake WMA
- Mallard Lake WMA
- Morph Meadows WMA
- Robinson lake WMA
- Rockwood WMA
- Sucker Lake WMA
- Sugar Lake WMA
- Wolf Lake WMA

Minnesota State Forests

State Forest are areas of public land that are open to hunting, fishing, trapping, hiking, mountain biking, OHV riding, cross-country skiing, snowshoeing, horseback riding, and more. We have portions of six (6) State Forests in the MRH Watershed:

- Blackduck State Forest
- Bowstring State Forest
- Buena Vista State Forest
- Mississippi Headwaters State Forest
- Paul Bunyan State Forest
 - Remer State Forest

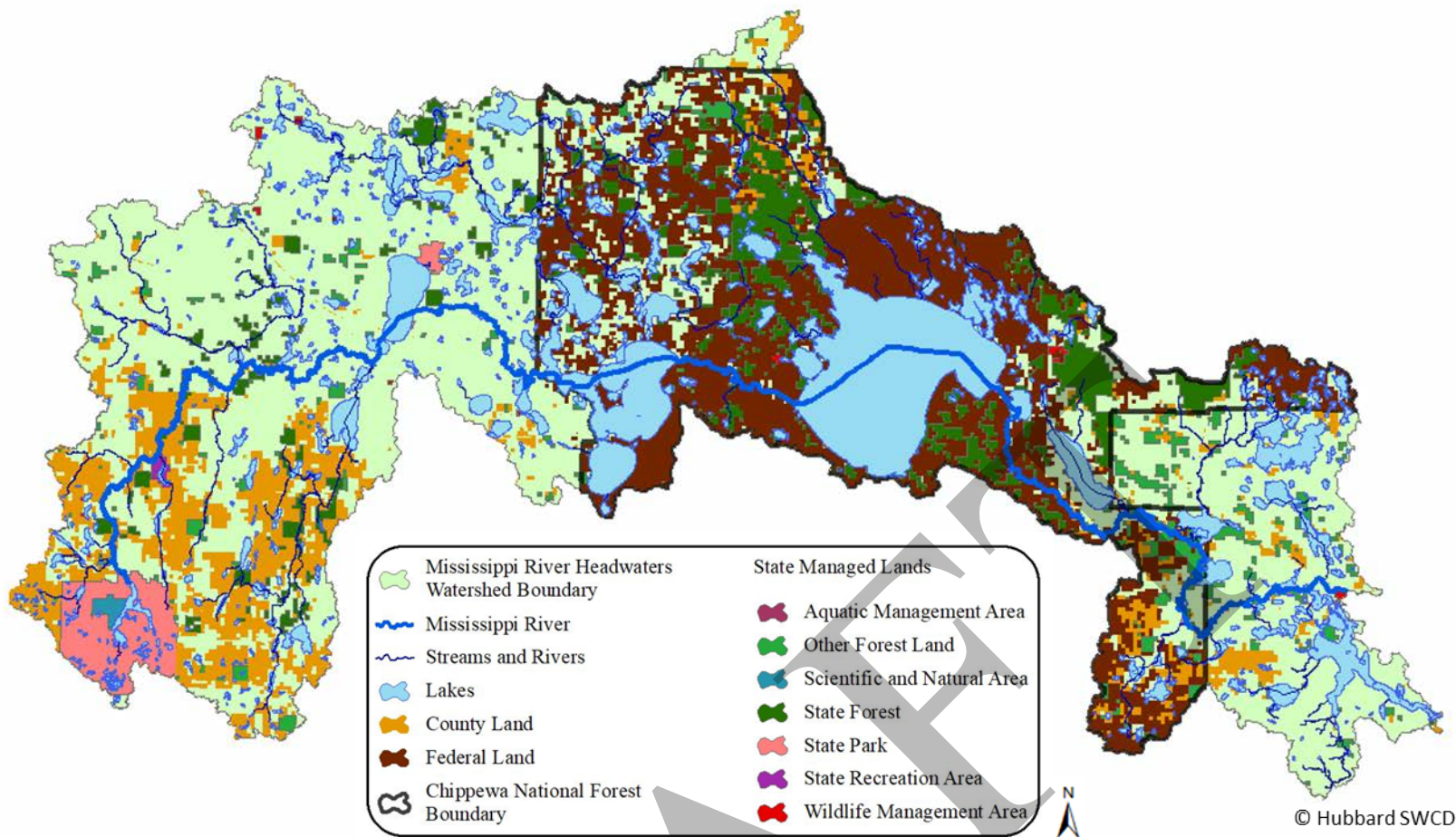
SNA (Scientific and Natural Areas)

Scientific and Natural Areas are public lands open to recreational activities that do not disturb natural conditions, such as birdwatching, nature photography, and hiking. Please be sure to verify the specific rules of each SNA before utilizing these shared natural resources. We have eight (8) Scientific and Natural Areas in the MRH watershed:

- Boltuck Rice Forever Wild SNA
 - Botany Bog SNA
- Chisholm Point Island SNA
- Iron Springs Bog SNA
- Itasca Wilderness Sanctuary SNA
 - LaSalle Lake SNA
 - Pennington Bog SNA
 - Wabu Woods SNA

**Insert Citizen
Submitted Picture of
Contest**

**Insert Citizen
Submitted Picture of
Contest**



State Parks and Recreation Areas

State Parks and Recreation Areas are areas of land held in preservation by the state of Minnesota for its natural, historic, or other resources. These areas can be used to hike, fish, swim, boat ride, kayak, canoe and many more. Please consult each park's rules before utilizing these areas. We have portions of four (4) State Parks and Recreation Areas in the MRH Watershed:

- Bemidji State Park
- Itasca State Park
- LaSalle Lake State Recreation Area
- Schoolcraft State Park

AMA (Aquatic Management Area)

These areas provide angler and management access, protect critical shore land habitat and provide areas for education and research. There are three types of AMA, these different types dictate the use allowed in that particular area, be sure to follow the rules for the AMA you are using. We have eleven (11) Aquatic Management Areas in the MRH Watershed:

- Andrusia Lake AMA
- Big Turtle Lake Island AMA
- Crawford Island AMA
- Dixon Lake AMA
- Grace Lake AMA
- Johnson Lake Island AMA
- LaSalle Creek AMA
- Little Turtle Lake AMA
- School Craft River AMA
- Smith Creek AMA
- Turtle River Lake AMA

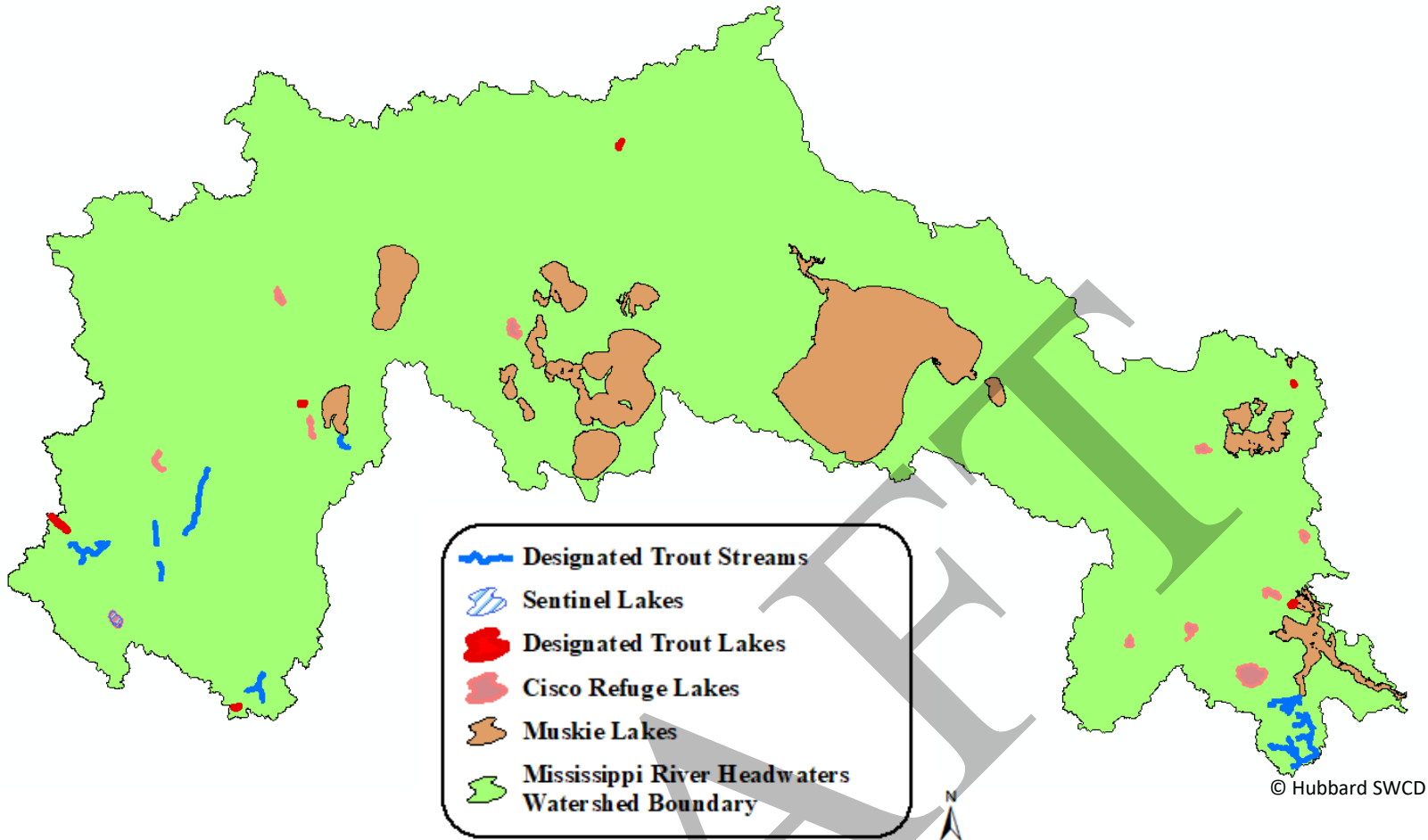
National Forests

National forests are protected areas of land open to a variety of outdoor recreation that are owned collectively by the American people and managed by the United States Forest Service. We have portions of one (1) National Forest in the MRH Watershed:

- Chippewa National Forest



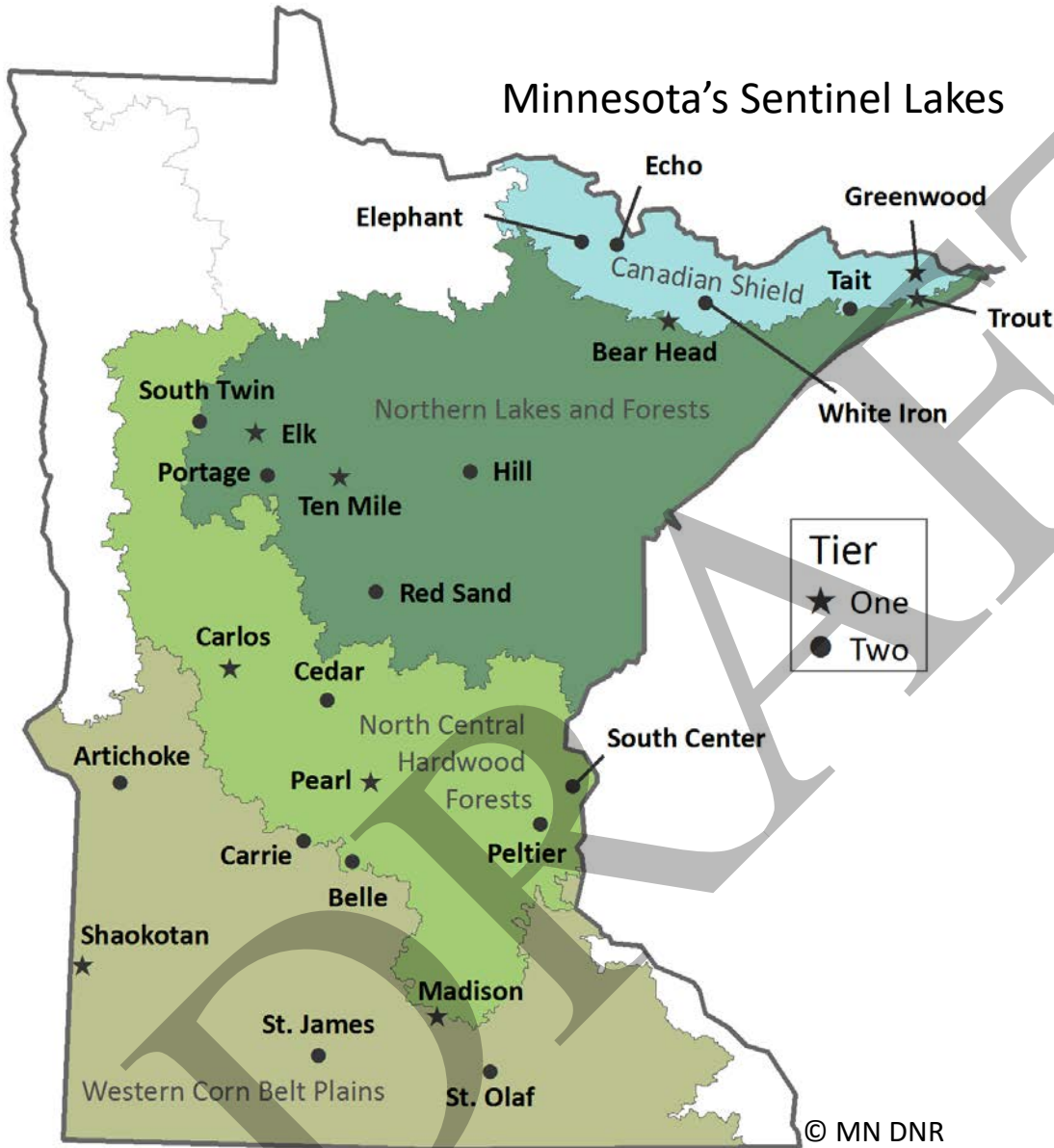
Unique Fisheries in the Mississippi River Headwaters Watershed



The MRH Watershed has many fantastic angling opportunities from Itasca State Park to the Pokegama Dam. Most areas in the state support fisheries for game fish like Largemouth Bass, Northern Pike and Walleye. Panfish and rough fish species are also common throughout the state, the MRH Watershed has some more unique opportunities that are not found statewide and have unique lakes of high biological significance. Some of the unique fisheries offered in the MRH Watershed are stream trout species, Muskie and Cisco. This watershed is also home to a Tier One Sentinel Lake, Elk Lake. There are nine (9) MN DNR designated trout streams in this watershed: Hennepin Creek, LaSalle Creek, Little Pokegama Creek, Matuska's Creek, Pokegama Creek, Schoolcraft River, Smith Creek and Sucker Brook (MN DNR). Many Designated Trout Streams in this area have naturally reproducing brook trout populations that are fishable.



Sentinel Lakes are part of the Sustaining Lakes in a Changing Environment (SLICE) project. This project is designed to help scientists understand, predict, and respond to outcomes of major drivers of change (e.g. development, agriculture, invasive species, climate change) on lake habitats and fish populations of 25 Sentinel Lake in Minnesota. The MRH Watershed has one Tier One Sentinel Lake within its boundary, Elk Lake. Elk Lake is also a Cisco Refuge Lake and a Muskie Lake. Elk Lake is a 271 acre lake with a maximum depth of 93 feet and is located in Itasca State Park in southern Clearwater County. Elk Lake Flows into Itasca lake through a short creek named Chambers Creek. This is popular fishery for Muskie that can reach 50 plus inches, large North Pike, panfish and Walleye. Elk Lake has a cisco population that is an important food source for game fish species (MN DNR).



The fish of 1,000 casts is a loving nickname many Minnesotans give Muskellunge species. Muskie and Tiger Muskie species are both present in Minnesota. Tiger Muskie are an infertile hybrid of Northern Pike and Muskie. These large predatory fish are known to give anglers a hard fight and a challenging pursuit when angling for them. The MRH Watershed has 17 Muskie lakes within it's boundary including: Andrusia, Bemidji, Big, Cass, Deer, Elk, Kitchi, Little Moose, Little Winnibigoshish, Little Wolf, Moose, Orange, Pike Bay, Plantagenet, Pokegama, Winnibigoshish and Wolf Lakes (MN DNR).

Cisco are members of the salmon family and are known as a high energy food source for many other fish species. Cisco require specific water characteristics to survive, they need to have cooler water to survive and thrive, around 54 degrees is optimal. Cisco need to have high dissolved oxygen levels to live as well. In the summer months the warming temperatures from the surface down push these fish into narrow bands of the water column where the temperature is cool enough to survive yet there is still enough oxygen to survive. This range is below 68 Degrees in temperature and above 3 ppm (parts per million) of dissolved oxygen. Cisco need deep cold water lakes to survive and thrive. Cisco refuge lakes are identified as those lakes that are deep and clear enough that they will still provide suitable coldwater fish habitat even after significant climate warming. In the MRH Watershed there are eleven (11) cisco refuge lakes: Chase, Elk, Grant, LaSalle, Leighton, Little Bass, Little Vermillion, Loon, Siseebakwet, Spearhead and Swenson Lakes (MN DNR).

MN DNR Designated Trout Lakes In The Mississippi River Headwaters Watershed.

Trout Lake Name	Trout Species Present	Other Fish Species Present In Lake (does not include forage fish or minnow species)	Total Area (acres)	Maximum Depth (feet)	Average Water Clarity	Littoral Zone
Benjamin	Rainbow Trout	- Bluegill - Yellow Perch	33.14	128	17	14.7
Blacksmith	Rainbow Trout		38.54	45	18.3	18
Long	Rainbow Trout	- Black Crappie - Bluegill, Green, Pumpkinseed and Hybrid Sunfish - Brown & Yellow Bullhead - Largemouth Bass - Northern Pike - Rock Bass - Walleye - White Sucker - Yellow Perch	158.86	80	18.5	24
Lucky	Brown Trout	- White Sucker	14.29	44	8	7.6
Newman	Rainbow Trout	- Black Bullhead - White Sucker	45.41	63	15.3	13
Tioga Mine Pit	- Rainbow Trout - Brown Trout	- Largemouth Bass - Rock Bass - White Sucker	49.32	225	27	1

Designated Trout Lakes throughout the state including the MRH Watershed are most commonly stocked with Rainbow Trout. Many Designated Trout Lakes in the state were originally bass and panfish fisheries that were chemically reclaimed by the MN DNR roughly in the 1970s – 1990s. This was done because these populations struggled to self sustain and did not provide a high quality angling opportunity to the public due to low population and fish size quality. Some lakes had to be reclaimed a second time due to the illegal introduction of fish species that competed with trout for food, such as panfish. Most Designated Trout Lakes are stocked by the DNR annually or biannually, some times multiple times per year, with fingerling or yearlings sized trout. On occasion the DNR will supplement the population with adult fish. There are still some Designated Trout Lakes that are stocked with Brown Trout but a change in the recent past has seen a switch in many trout lakes to focus on Rainbow Trout due to lower angler success when pursuing Brown Trout. The exceptions in the MRH Watershed is Lucky Lake, and in 2018 the DNR stocked 585 Brown Trout yearlings into the Tioga Mine Pit. Smaller lakes receive from one hundred to a few hundred pounds of fish while some larger lakes, like Long Lake, will receive several thousands pounds of trout in a given stocking event. The Tioga Mine Pit is also unique due to the fact that private citizens or sporting groups are responsible for Rainbow Trout stocking efforts from 2011 through 2018. Another interesting change to Designated Trout Lakes that came about recently is the change from stocking the Arlee strain of Rainbow Trout to the Kamloops strain of Rainbow Trout which is a faster and larger growing subspecies that originated in western Canada. There are no Designated Trout Lakes that offer Brook Trout or Lake Trout fisheries in this watershed, which are the only two native trout species to Minnesota pre-European settlement. There are six (6) total trout species that anglers can fish for in Minnesota the Brook Trout and Lake Trout, are the only natives to Minnesota. The Rainbow Trout is an introduced species that has an original pre-European settlement range in the western United States including what is now California, Idaho, Oregon and Washington. Minnesota also has Steelhead which is simply an anadromous Rainbow Trout meaning Rainbow Trout that migrate between Lake Superior and its tributary streams to spawn. Steelhead are not present in the MRH Watershed. The brown trout is an introduced species originating from Europe, both the Brown Trout and Rainbow Trout have become a naturalized species in some stream or river systems in the state. Splake are hybrids between a male brook trout and a female lake trout, splake are not known to be reproductively successful in Minnesota. The Tiger Trout is a rare species only found in southeast Minnesota that is a hybrid of a Brook Trout and a Brown Trout.

Did You Know There Are Four Standing State Record Fish Caught In The MRH Watershed?

Species: Rock Bass (Tie)
Weight: 2 pounds, 0 ounces
Length: 12.5 inches
Girth: 12.75 inches
Location: Lake Winnibigoshish
Date caught: 8/30/2004

Insert photo contest entry of the correct species

Insert photo contest entry of the correct species

Species: Bluegill Sunfish
Weight: 2 pounds, 13 ounces
Length: Unknown
Girth: Unknown
Location: Lake Alice
Date Caught: 1948

Species: Muskellunge
Weight: 54 pounds, 0 ounces
Length: 56 inches
Girth: 27.75 inches
Location: Lake Winnibigoshish
Date Caught: 1957

Insert photo contest entry of the correct species

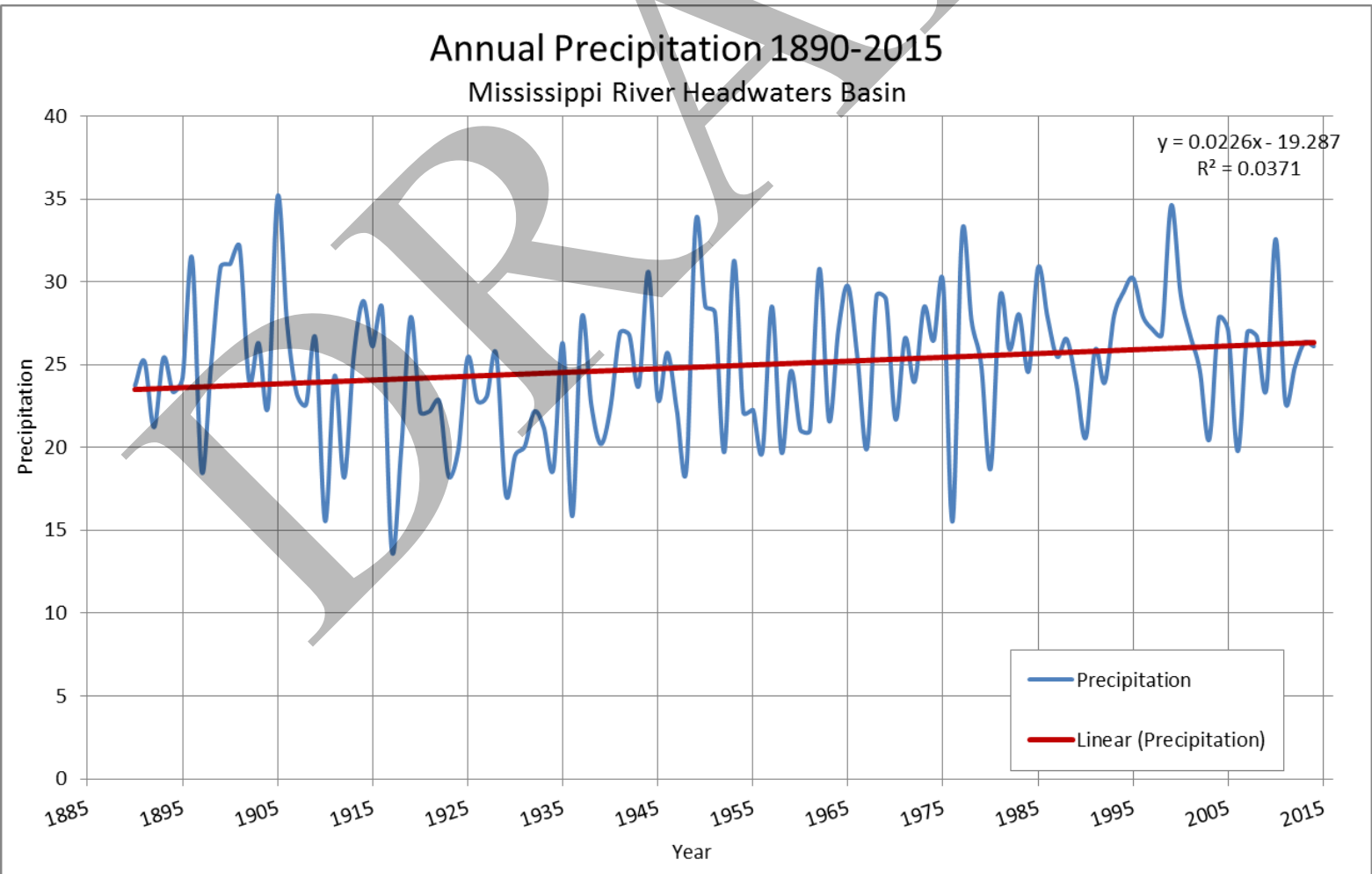
Insert photo contest entry of the correct species

Species: Yellow Perch
Weight: 3 pounds, 4 ounces
Length: Unknown
Girth: Unknown
Location: Lake Plantagenet
Date Caught: 1945

Precipitation and Temperature

Minnesota has a continental climate, marked by warm summers and cold winters. The average annual temperature for Minnesota State is 40.28°F (NOAA, 2016). The average annual temperature for North-Central Minnesota is 37.5°F. The average summer temperature for the Mississippi River Headwaters Watershed is 64.94°F and the average winter temperature is 10.01°F (Minnesota State Climatology Office, 2003). The average annual precipitation in North-Central Minnesota is 25.1 inches per year from 1895-2015. Precipitation trends in the Mississippi River Headwaters Watershed are similar to other watersheds in Northern Minnesota. The annual average precipitation for the Headwaters over the past 100 years was 24.5 inches over this time period annual precipitation is trending upward. There is a high degree of variability in temperature and precipitation (Clark, Lori, et al "Mississippi River Headwaters Watershed Fluvial Geomorphology Report" Ecological and Water Resources Division, May 2018).

Insert Citizen submitted picture – would be great to get a picture of a rainfall monitor from one of the counties performing a measurement with their gauge at home?



Clark, Lori, et al "Mississippi River Headwaters Watershed Fluvial Geomorphology Report" Ecological and Water Resources Division, May 2018

Rare and Endangered Species In The MRH Watershed

Scientific Name	Common Name	Type
<i>Ammodramus nelsoni</i>	Nelson's Sharp-tailed Sparrow	Zoological
<i>Asio flammeus</i>	Short-eared Owl	Zoological
<i>Botrychium lanceolatum</i>	Triangle Moonwort	Botanical
<i>Botrychium minganense</i>	Mingan Moonwort	Botanical
<i>Botrychium mormo</i>	Goblin Fern	Botanical
<i>Botrychium oneidense</i>	Blunt-lobed Grapefern	Botanical
<i>Botrychium pallidum</i>	Pale Moonwort	Botanical
<i>Botrychium rugulosum</i>	St. Lawrence Grapefern	Botanical
<i>Botrychium simplex</i>	Least Moonwort	Botanical
<i>Buteo lineatus</i>	Red-shouldered Hawk	Zoological
<i>Ceraclea vertreesi</i>	Vertrees's Ceracleen Caddisfly	Zoological
<i>Chilostigma itascae</i>	Headwater Chilostigman Caddisfly	Zoological
<i>Coturnicops noveboracensis</i>	Yellow Rail	Zoological
<i>Cypripedium arietinum</i>	Ram's-head Lady's-slipper	Botanical
<i>Dryopteris goldiana</i>	Goldie's Fern	Botanical
<i>Eleocharis olivacea</i>	Olivaceous Spike-rush	Botanical
<i>Eleocharis quinqueflora</i>	Few-flowered Spike-rush	Botanical
<i>Emydoidea blandingii</i>	Blanding's Turtle	Zoological
<i>Etheostoma microperca</i>	Least Darter	Zoological
<i>Falco peregrinus</i>	Peregrine Falcon	Zoological
<i>Fimbristylis autumnalis</i>	Autumn Fimbristylis	Botanical
<i>Haliaeetus leucocephalus</i>	Bald Eagle	Zoological
<i>Hemidactylium scutatum</i>	Four-toed Salamander	Zoological
<i>Lasmigona compressa</i>	Creek Heelsplitter	Zoological
<i>Ligumia recta</i>	Black Sandshell	Zoological
<i>Lobaria quercizans</i>	Smooth lungwort	Botanical
<i>Malaxis monophyllos</i> var. <i>brachypoda</i>	White Adder's-mouth	Botanical
<i>Malaxis paludosa</i>	Bog Adder's-mouth	Botanical
<i>Najas gracillima</i>	Thread-like Naiad	Botanical
<i>Notropis anogenus</i>	Pugnose Shiner	Zoological
<i>Oxyethira ecornuta</i>	A Caddisfly	Zoological
<i>Oxyethira itascae</i>	A Caddisfly	Zoological
<i>Platanthera clavellata</i>	Club-spur Orchid	Botanical
<i>Poa wolfii</i>	Wolf's Bluegrass	Botanical
<i>Potamogeton vaginatus</i>	Sheathed Pondweed	Botanical
<i>Potamogeton vaseyi</i>	Vasey's Pondweed	Botanical
<i>Ranunculus lapponicus</i>	Lapland Buttercup	Botanical
<i>Scirpus clintonii</i>	Clinton's Bulrush	Botanical
<i>Setodes guttatus</i>	A Caddisfly	Zoological
<i>Sparganium glomeratum</i>	Clustered Bur-reed	Botanical
<i>Subularia aquatica</i>	Awlwort	Botanical
<i>Tomenthypnum falcifolium</i>	Curved-leaved golden moss	Botanical
<i>Torreyochloa pallida</i>	Torrey's Manna-grass	Botanical
<i>Waldsteinia fragarioides</i>	Barren Strawberry	Botanical
<i>Wilsonia citrina</i>	Hooded Warbler	Zoological

Public Lands Highlight – Itasca State Park

Itasca State Park is truly an iconic feature of not only this watershed and Minnesota but as a continent, where our mightiest river begins. “This park has become a famous natural and cultural landmark in North America.” – *MN DNR*, established in 1891 to protect the forest and surrounding area around the source of the Mississippi, making Itasca the oldest State park in Minnesota and second oldest in the nation. It has a total area of 32,691 acres (51.08 miles), over 100 lakes and several miles of rivers and streams. Around 500,000 people visit Itasca State park each year. With around 48,000 residents in this watershed, not all of which go to Itasca every year, showing the massive influx of tourism this area receives due to its high quality natural resources.

This park offers guests a variety of recreation opportunities:

- 45 overnight lodging units (cabins)
- 223 drive in camping sites
 - Electric, RV capable and wheelchair accessible sites are available
 - 11 back pack in sites that are 1-5 miles away from parking areas
 - 11 cart in sites that are located about 100 – 500 away from parking areas
- Visitor center with interactive exhibits, food venue and a gift shop
- Naturist programs
- Guided tours (must be prearranged)
- Historic sites
- Rental of all kinds of watercraft

Itasca offer other types of recreation opportunities as well such as horseback riding, fishing, biking, bird watching and so much more! Itasca State Park does have a limited entry Whitetail Deer lottery for around 500 tags each year as well, hunting is only allowed in certain areas. If you would like to learn more about Itasca State Park stop my one of the visitor areas in the park or visit the MN DNR’s website:

www.dnr.state.mn.us/state_parks/park.html?id=spk00181#homepage

Insert pictures of people visiting Itasca State Park from the photo contest – we could specifically ask for these in the contest and have them submit a short one sentence quote summarizing what they like about the park?

Public Land Highlight - Chippewa National Forest

The Chippewa National Forest, located in the heart of Northern Minnesota, is a celebration of seasons, culture and environment. The Chippewa National Forest is the first National Forest established east of the Mississippi River in 1908 and is the home to more lakes and wetlands than any other National Forest. The forest was originally known as the Minnesota National Forest. The name was changed in 1928 to honor the original inhabitants. Today, the Forest and Leech Lake Band of Ojibwe share goals and offer visitors a chance to experience Anishinabe culture and learn about the past from prehistory to early, logging-era and Civilian Conservation Corps days. The Forest boundary encompasses about 1.6 million acres, with over 660,000 acres managed by the Chippewa National Forest. The remaining lands are state, county, tribal, and private. The Leech Lake Indian Reservation is also within the Forest boundary. The forest has 1,300 lakes, 925 miles of streams and 400,000 acres of wetlands, all of this water accounts for 13% of all surface water in the National Forest System, this is due in large part to having three of Minnesota's top ten largest lakes: Cass, Leech and Winnibigoshish. The forest supervisor's office is located in Cass Lake, with district offices in Blackduck, Deer River and Walker (USFS).

This National Forest offers a variety of recreation opportunities:

- 21 developed campgrounds
- 68 dispersed campsites.
- 85 public boat accesses
- 10 miles of paved bike trails
- 160 miles of hiking trails
- 278 miles of non-motorized trails
- 312 miles of snowmobile trails
- 21 miles of OHV trails
- 24 miles of designated horse trails plus 200+ low standard roads to ride.

Many of these trails are multi-use, please be sure to read signs posted on the trail heads to ensure you can recreate there with the equipment you have. Other opportunities exist for hunting, fishing, bird watching, berry picking and much more! If you would like to learn more about the Chippewa National Forest stop by a visitor center or browse the USFS (United States Forest Service) website: www.fs.usda.gov/main/chippewa/home

Insert pictures of people visiting Chippewa National Forest from the photo contest – we could specifically ask for these in the contest and have them submit a short one sentence quote summarizing what they like about the park?

Future Conservationists



UNIVERSITY OF MINNESOTA CROOKSTON

Driven to DiscoverSM

There are many efforts of youth conservation that happen throughout the state, one University in particular has a long history of land stewardship and conservation projects in the MRH Watershed. The Natural Resources Department at the University of Minnesota Crookston Campus has been planting conifer trees in the Chippewa National Forest for 37 years as of the Spring of 2019, totaling over 200,000 individual trees. This group has also been bud capping for 15-20 years in the Chippewa National Forest. Each year the Natural Resource Club, The wildlife society and other students, staff and friends of UMC travel to the “Chip” in large groups to come together and perform these conservation projects. This past spring the United States Forest Service presented UMC an award for the outstanding work they have done through the years.

It doesn't end there, UMC also goes to Itasca State Forest annually for bud capping on National Public Lands Day, in late September every year. They have been bud capping there for 20 plus years and bud cap between 5,000 – 10,000 individual trees every year. Other volunteers also join this group every fall to assist in the effort. (Phil Baird- UMC Professor)



Relevant socio-economic information

The Mississippi Headwaters subbasin has a population of just over 48,400 people. Median household income throughout the district is nearly \$36,000 yearly, roughly 76% of the national average. Sixty one percent of the population over the age of 18 is active in the workforce, and the unemployment rate is estimated to be near 6%. Approximately 13% of the residents in the watershed live below the national poverty level.

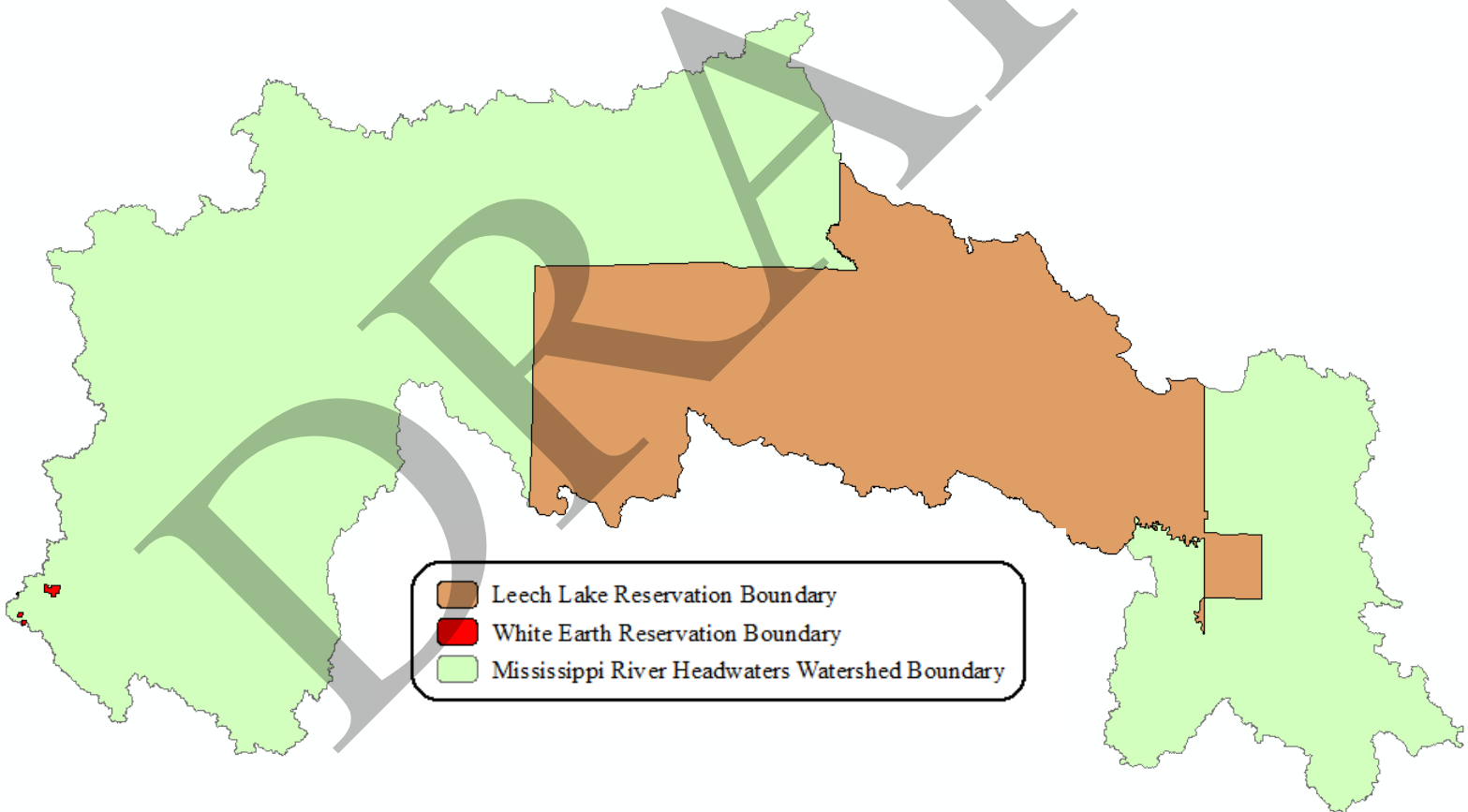
https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_022926.pdf - Rapid Watershed Assessment Mississippi Watershed Assessment - NRCS

What else do we want?

- tax revenue of water based parcel by county?
- forestry revenue info?
- Hunting and fishing revenue info?

Separate Section On Historic And Current Tribal Practices? Yes or No?

- White Earth Band
- Leech Lake Band



Resources:

I will reformat as needed for proper citations.

- Anderson, Chad, et al. "Mississippi River (Headwaters) Watershed Monitoring and Assessment Report" Minnesota Pollution Control Agency, January 2017.
 - <https://www.pca.state.mn.us/sites/default/files/wq-ws3-07010101b.pdf>
- Blackburn, Julie, et al "Mississippi River Headwaters Watershed Restoration and Protection Strategy Report" Minnesota Pollution Control Agency, August 2018
- Clark, Lori, et al "Mississippi River Headwaters Watershed Fluvial Geomorphology Report" Ecological and Water Resources Division, May 2018
 - <https://www.pca.state.mn.us/sites/default/files/wq-ws4-50a.pdf>
- Minnesota Department of Natural Resources – Aquatic Management Areas Webpage
 - <https://www.dnr.state.mn.us/amas/index.html>
- Minnesota Department of Natural Resource - Itasca State Park Homepage
 - https://www.dnr.state.mn.us/state_parks/park.html?id=spk00181#seasonal_update
- Minnesota Department of Natural Resources – Minnesota State Forests Webpage
 - https://www.dnr.state.mn.us/state_forests/index.html
- Minnesota Department of Natural Resources – Wildlife Management Areas Webpage
 - <https://www.dnr.state.mn.us/wmas/index.html>
- Minnesota Pollution Control Agency – Mississippi Headwaters Watershed
 - <https://mpca.maps.arcgis.com/apps/MapJournal/index.html?appid=891bc9119caa42a89caf85483943de43>
- Vaughan, Sophia, et al "Groundwater Report – Mississippi River-Headwaters Watershed" Minnesota Pollution Control Agency, January 2017
 - <https://www.pca.state.mn.us/sites/default/files/wq-ws1-12.pdf>
- United States Forest Service – Chippewa National Forest Homepage
 - <https://www.fs.usda.gov/main/chippewa/home>
- USDA, NRCS " Rapid Watershed Assessment Mississippi Headwaters (MN) HUC: 7010101".
 - https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_022926.pdf
- Xing Fang, Liping Jiang, Peter C. Jacobson, Heinz G. Stefan, Shoeb R. Alam & Donald L. Pereira (2012): Identifying Cisco Refuge Lakes in Minnesota under Future Climate Scenarios, Transactions of the American Fisheries Society, 141:6, 1608-1621.

Issue Definition – problems, risks, or opportunities for the watersheds’ priority resources that will be addressed in the plan.

Resource Protection Focus – Preservation of our natural resources by limiting the amount of change on current conditions.

Issue Statements

- Drinking water – Residents within the watershed use ground water as the primary drinking water resource and due to the composition of the soils and surficial aquifers there is an elevated vulnerability of contamination both naturally and human induced.
 - High nitrates
 - High arsenic
 - Much of the watershed is high in pollution sensitivity of near surface materials
 - Private well head protection
 - DWSMA
 -
 -
- Wetlands – Land practices have affected the natural structure and function of wetlands there by reducing the intrinsic value and influences hydrologic and habitat values.
 - Wetland Protection
 - Wetland Restoration
 -
 -
- Forestry – High quality water resources found and enjoyed throughout the watershed is indebted to a largely intact diverse forest landscape. Creating alternative land uses leading to forest fragmentation will have negative consequences.
 - Stewardship
 - Forest diversity
 - Conservation easement
 - School Trust Fund Lands
 - Forest Fragmentation
 -
 -
- Data Collection/Monitoring – Collecting information needed to understand the water-resource baseline condition for improved management decisions.
 - Stormwater
 - Lake/rivers
 - Well’s
 -
 -

- Emerging Issues of Concern – Issues where LGUs either have not historically been engaged or there has not typically been a problem in the watershed but potentially could be based on land uses adjacent to the watershed.
 - Irrigation
 - Pipelines
 -
 -

Resource Restoration Focus – Conservation of our natural resources through management of resource use.

Issue Statements

- Watercourse Recovery – Disruption and connection of human activity to river and stream networks increases the effect of human activity to habitat, water quality, and natural connections.
 - Roads/culverts
 - Drainage Ditches
 - Hydrology restoration
 - Dams
 - Chlorides
 -
 -
- Lakeshed – Increased land use pressures adjacent to lakes and subsequent drainage area to lakes has altered the habitat in the near shore area and can have a substantial impact to water quality.
 - Shoreland Management
 - Critical lands
 -
 -
- Waste Water Management – Poorly functioning or failing waste management systems are threats to human health and the environment through increased pathogens, nutrients, and other chemicals often having a connection to water.
 - SSTS inspection, maintenance, and upgrades
 - City waste water effluent
 -
- Aquatic Invasive Species – New introductions or unimpeded infestations have a varying range of impacts to economic, environmental and recreation to wetlands, lakes, and rivers.
 - Management
 - Coordination
 -
 -

- Administrative Priorities – Provide a guide for standard operation for each of the ten LGUs throughout the watershed and examination of local policies and controls.
 - Fiscal Responsibility
 - County Ordinances
 - Emergency Management
 - Comprehensive plans
 - Climate Change
 -
 -

Land Management Focus – Conservation of our natural resources through management of land use.

Issue Statements

- Urban Lands – Unmanaged or poorly managed land development can have adverse impacts on groundwater recharge and stormwater runoff quality and quantity.
 - Stormwater
 - Smart Development
 -
 -
- Agricultural Lands – Depending on how agricultural lands are managed they could potentially be major sources of sediment, nutrients, and other chemicals to surface and groundwater.
 - Soil health/Productivity
 - Pasture management
 - Feedlots
 - Buffers
 -
 -
- Environmental Sensitive Lands – Portions of the watershed contain unique features that have a larger impact if degraded or affect a large number of people.
 - Two EPA superfund sites and two MDH special well boring and construction areas
 - Protecting pollinator populations
 - Rare features
 -
 -

Water Storage Focus – Maintain an average discharge of xxx acre-feet at the pour point of the Mississippi River Headwaters Watershed.

Hi Zach,

Spoke with Tim today about us doing the comp plan work with you. He is all on board and below I put a quick summary of the money we would need and broke it down into the funds we would need from each party. If your project could contribute \$5,000 we can put in \$2,000 from our general fund and then pull another \$1000 from another fund. However we would need an official contract and board approval. We have a board meeting this Thursday but not sure if we could get it in the board packet in time. We can always have it on the agenda for July. Let me know what the policy board decides.

Comp Plan Analysis- HRDC Contract Estimate

- A. Charge Rate of \$50 dollars hourly- Total of 160 hours to complete project- \$8,000
 - a. Mississippi Headwaters One Watershed One Plan- \$5,000
 - b. Headwaters Regional Development Commission- \$2,000
 - i. Matching GreenCorps Fund- \$1000

Joel Anastasio
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Northwest Regional CERT Coordinator
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Email: janastasio@HRDC.org



Headwaters Regional Development Commission

Corridor I-197 Analysis Report



Joel Anastasio, Environmental and Development Specialist
Danica Swanson, MPH, Minnesota GreenCorps

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Report Scope

Executive Summary

The Minnesota Department of Transportation (MnDOT) is planning improvements to the Highway 197 corridor (Paul Bunyan Drive) within the city of Bemidji, from Bemidji Avenue to Gillett Drive. Figure 1 shows an aerial view of the proposed project area. The project could be developed to improve traffic safety, upgrade aging infrastructure, and provide safe access for all users including motorists, pedestrians, bicyclists, and transit riders. There are many safety problems throughout this segment of Highway 197, making it a critical crash location. From 2011-2015, 180 crashes happened between the intersection with Gillett Drive and the intersection with Bemidji Avenue. This report helps to uncover the challenges along the corridor by analyzing interview responses from businesses along the highway and identifying trends. Interview results and trends were organized by business sector.



Figure 1: Aerial view of the identified project area, I-197 corridor, from Gillett Dr. NW (left) to Bemidji Ave. (right).

Survey and Data Tables

Survey

MnDOT and the Headwaters Regional Development Commission conducted interviews with businesses, with questions pertaining to business plans that would affect the corridor, daily operations such as foot traffic, number of trucks arriving/departing at facility, importance of transit, and any transportation barriers. Additionally, the survey asked clients what they liked about Paul Bunyan Drive (Highway 197) and what changes they would like to see along the corridor. Figures 2, 3, and 4 depict the results of the survey by using a multilevel analysis.

Data Tables

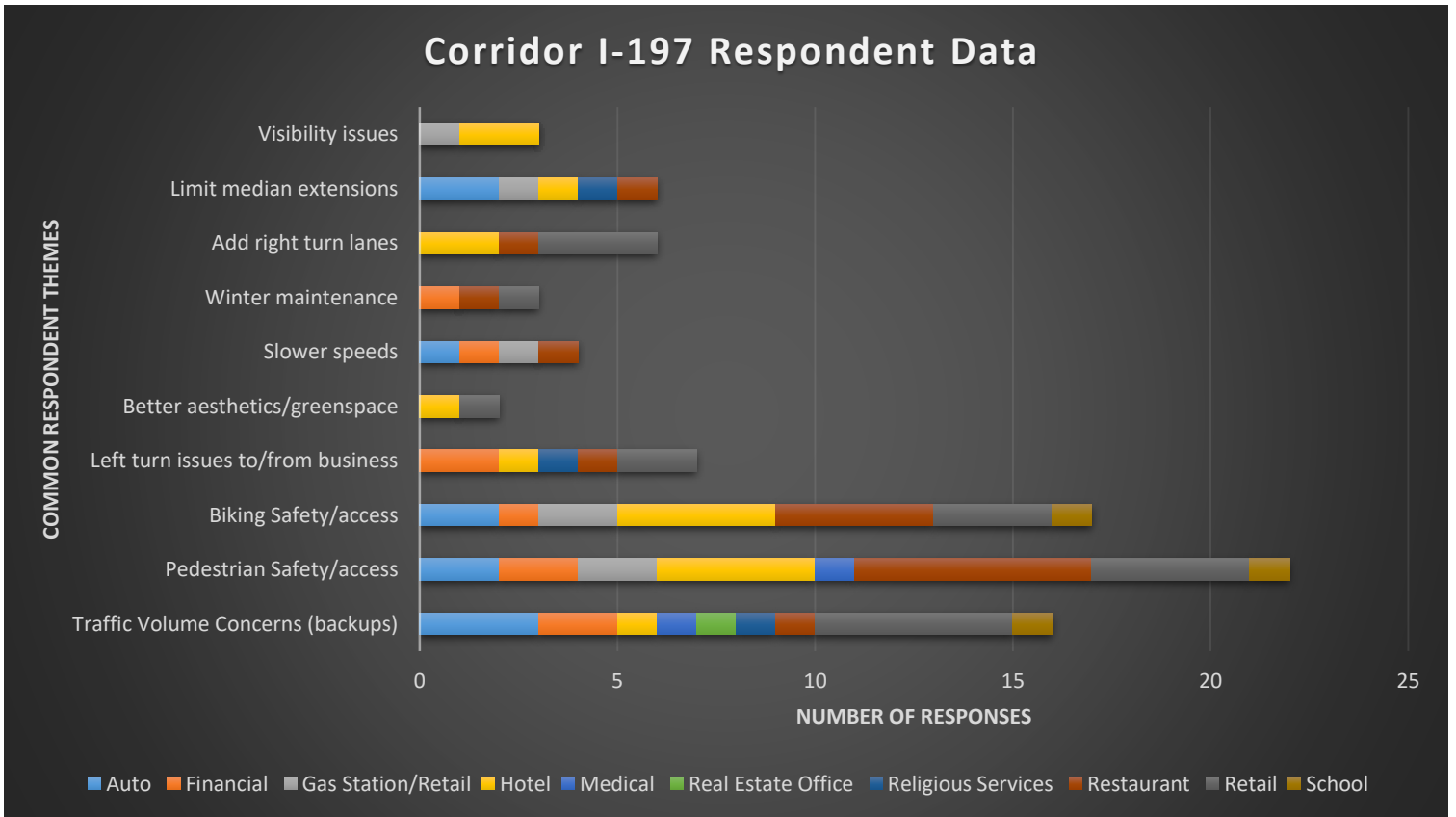


Figure 2: Top themes identified through business interviews with respondents along the I-197 corridor. Business sectors are organized by color and total responses are labeled accordingly.

Comparison By Top Themes

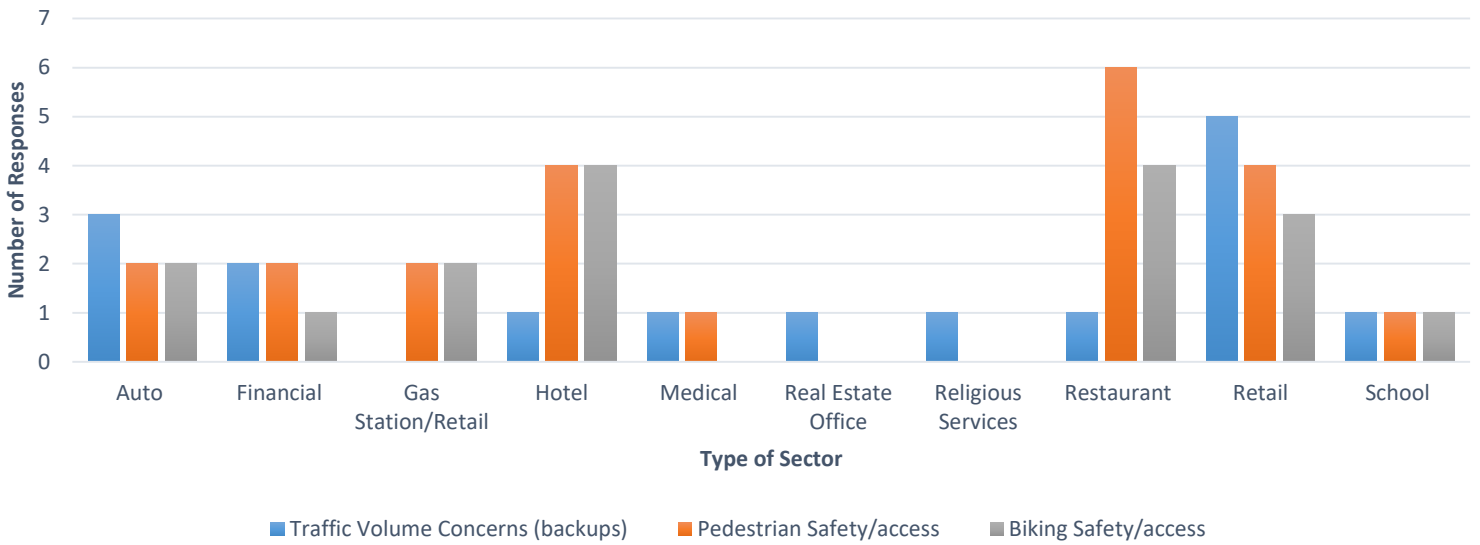


Figure 3: Top three themes identified in business interviews along I-197 corridor. Responses are organized by business sector, showing commonalities between themes.

Comparison By Top Responding Sectors

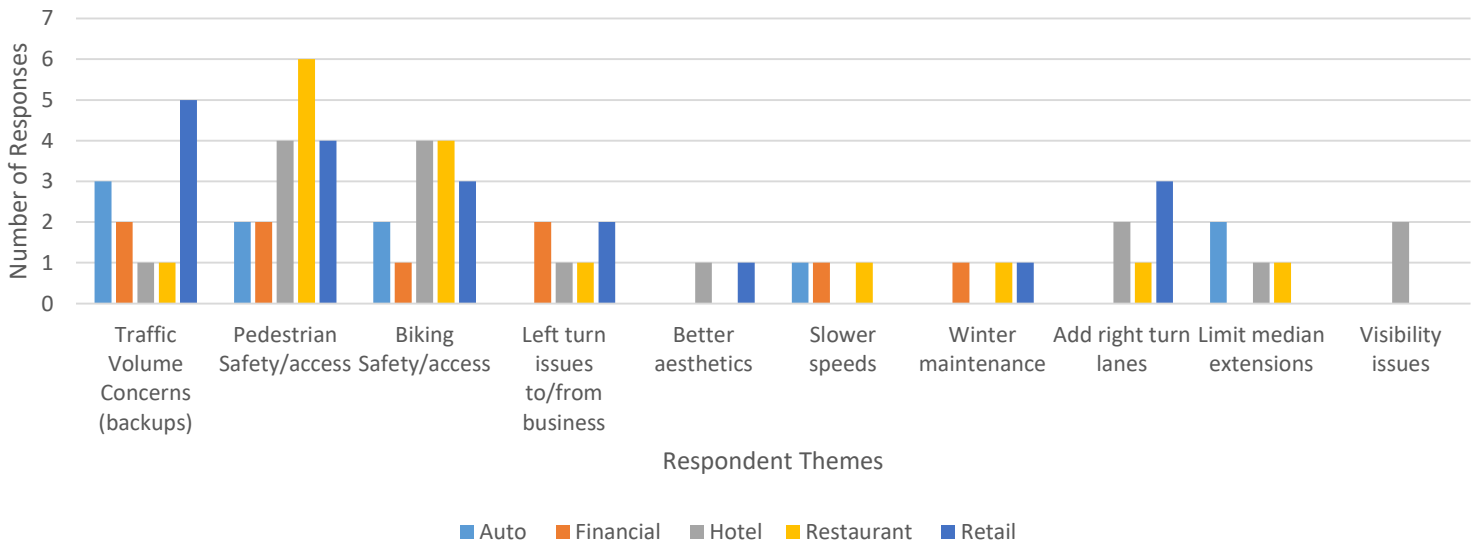


Figure 4: Top five responding business sectors along I-197 corridor and the common themes found in those responses.

Analysis

Under careful analysis, Figure 2 gives a snapshot of the all the sectors and themes that were a result of the interview questions. For the purpose of this report, the term “theme” refers to the concerns and barriers that respondents reported were important for corridor improvement. When reviewing all of the common themes among business sectors the outcome was as follows:

- **61.1% of all businesses interviewed responded that *Pedestrian Safety and Access* was a concern.**
- **47% of all businesses interviewed responded that *Biking Safety and Access* was a concern.**
- **44% of all businesses interviewed responded that *Traffic Volume and Backups* was a concern.**
- **19% of all businesses interviewed responded that *Left Turn Issues To and From the Business* was a concern.**
- **17% of all businesses interviewed responded that *Adding Right Turn Lanes* was a concern.**
- **17% of all businesses interviewed responded that *Limiting Median Extensions* was a concern.**
- **14% of all businesses interviewed responded that *Slower Speeds* was a concern.**
- **8% of all businesses interviewed responded that *Winter Maintenance* was a concern.**
- **8% of all businesses interviewed responded that *Visibility Issues* was a concern.**
- **6% of all businesses interviewed responded that *Better Aesthetics and Green Space* was a concern.**

Out of all the themes compared, biking/safety access, pedestrian safety/access, and traffic volume concerns were the leading variables. The number of responses for the leading themes exceeded 15, and were also common across the board. With that, 62 businesses were contacted and 36 were actually interviewed.

In Figure 3, the data was isolated by only looking at the top three themes across all of the sectors, which allows for a more detailed analysis. The graph eliminates the sectors that did not answer whether they thought biking/safety access, pedestrian safety/access, and traffic volume were concerns. By doing this, it can be deduced which themes have common interests within sectors.

Figure 4, similar to Figure 3, also shows isolated data by grouping together the top responding sectors across all themes. With this data, only those businesses that had a high amount of responses (over 10) are reported in the graph. Subsequently, because these sectors have multiple concerns, it is important to see where commonalities lie between like sectors, as opposed to just comparing popular themes.

Outliers and Further Thoughts

Most businesses that were interviewed gave similar concerns, resulting in the above identified common themes. However, it is essential to recognize outlying responses to give a complete picture. Two businesses voiced that better aesthetics and more greenspace were important improvements to be considered. These two businesses came from the retail and restaurant areas, showing that improved greenspace and aesthetic value are important to different sectors. These responses should be considered in the I-197 project, not only because they offer varied perspectives across business sectors, but also because increased greenspace and aesthetics could serve other purposes as well. Enhanced pedestrian and bicycling options can include aesthetic updates in addition to improving safety. Furthermore, it is important to note that 19% of businesses interviewed stated that there was nothing they would change about the I-197 corridor at this time. Two companies indicated concerns that changes to the corridor would negatively impact access to their businesses, and in turn reduce customers or sales. This shows that all responses and business concerns, not just common themes, should be considered when addressing the project along the I-197 corridor. Lastly, in Figure 5, located in Appendix D, the map shows all the businesses interviewed along the corridor.

Appendix A

Highway I97 Interview Questions

- 1) Tell us a little bit about your business or organization:
 - a. Do you have plans to make significant investments in your business that would change how you use Paul Bunyan Drive?

- 2) Tell us about your day to day operations:
 - a. Do you have a large volume of traffic concentrated at the same time of day?
 - b. Approximately how many trucks arrive and depart your facility daily?
 - c. How important is walking, biking or transit to your business/organization?
 - d. Are you aware of any transportation issues with accessing your business/organization?

- 3) What do you like about Paul Bunyan Drive?

- 4) What would you like to change about Paul Bunyan Drive?

Appendix B Excel Data Table

Sector	Traffic Vol	Pedestrian	Biking Safe	Left turn is	Better aes	Slower spe	Winter ma	Add right t	Limit medi	Visibility is:
Auto		x	x							
Auto										
Auto	x	x	x							
Auto	x					x			x	
Auto										
Auto	x								x	
Financial	x			x						
Financial		x		x		x	x			
Financial	x	x	x							
Gas Station/Retail		x	x						x	
Gas Station/Retail		x	x			x				x
Hotel		x	x	x				x	x	
Hotel		x	x							
Hotel		x	x		x			x		x
Hotel	x	x	x							x
Medical	x	x								
Real Estate	x									
Religious S	x			x					x	
Restaurant		x	x				x			
Restaurant		x		x					x	
Restaurant	x	x	x			x				
Restaurant		x	x							
Restaurant		x						x		
Restaurant		x	x							
Restaurant										
Retail				x				x		
Retail										
Retail	x	x	x	x			x			
Retail		x						x		
Retail	x									
Retail					x			x		
Retail	x									
Retail	x									
Retail		x	x							
Retail	x	x	x							
School	x	x	x							

Appendix C Table of Businesses Interviewed

Business Name	Business Name
1. American	2. Applebees
3. Autozone	4. Bank Forward
5. Bemidji Chrysler Center	6. Best Western
7. Big Apple Bagels	8. Builders First Source
9. Carquest	10. Century 21
11. Chester Berg Toyota	12. Country Kitchen
13. Culvers	14. Destination Sporting Goods
15. Dicks Northside	16. Dominos
17. First Baptist Church	18. First National Bank
19. Holiday Inn Express	20. Ideal Pawn
21. Ken K Thompson	22. Marketplace Foods
23. McDonalds	24. Med-Express Urgent Care
25. Menards	26. Netzer's Floral
27. Simonson Market	28. Stamart
29. Stittsworth Meats	30. Super 8 Motel
31. Taco Johns	32. UPS Store
33. Trek North High School	34. TruStar Federal
35. Valvoline	36. Wal-Mart

Appendix D Map of Corridor with Businesses Interviewed

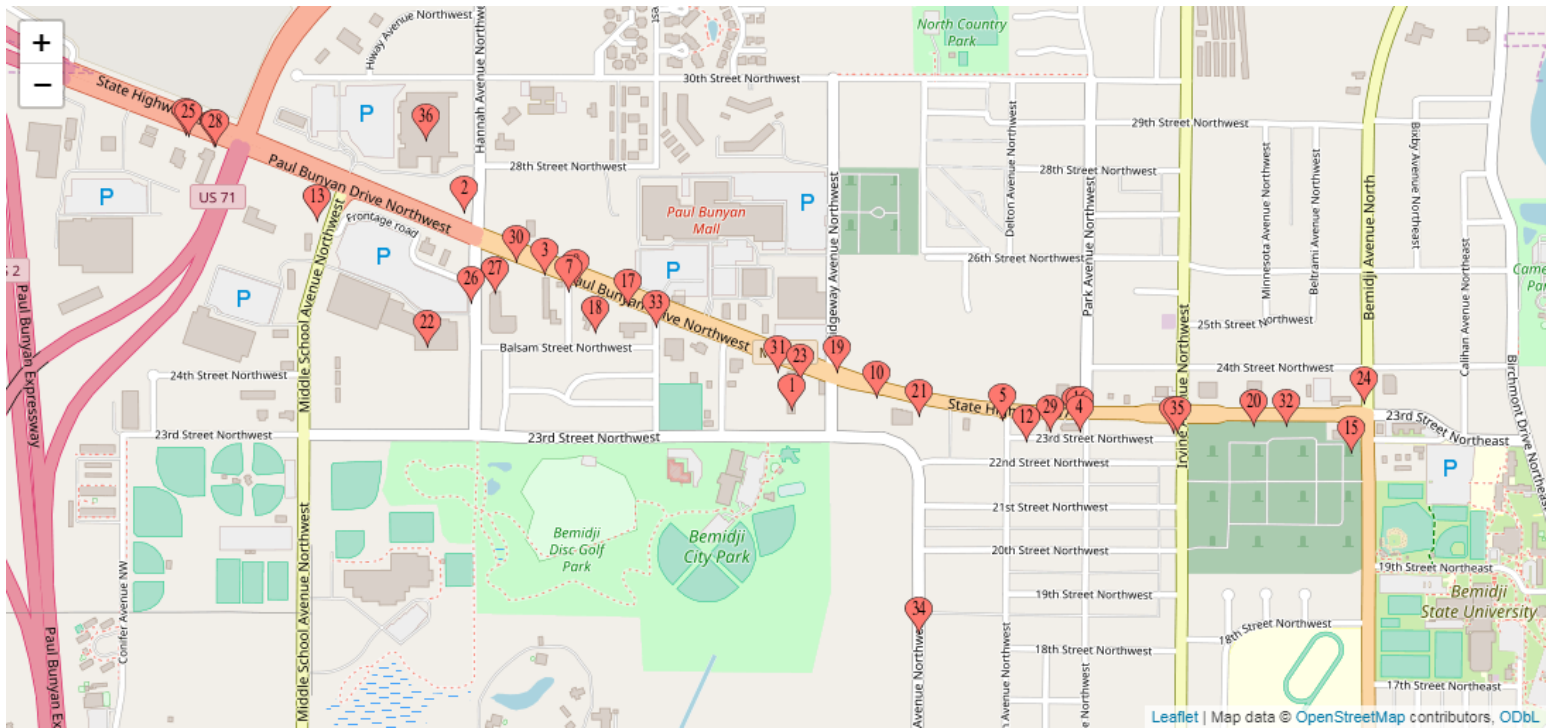


Figure 5. Map of I-197/Paul Bunyan Drive with Businesses Interviewed

Thank you for reaching out to us! We'd love to be part of your tour and appreciate the opportunity.

Our rates are all hourly based for this type of trip. Please see the summary below and let me know if you have any questions.

47 Passenger Motorcoach- \$85.00/hr with 8 hour minimum

55 Passenger Motorcoach- \$95.00/hr with 8 hour minimum

Clock starts and stops at our shop in Bemidji

All of our coaches feature P/A system, on board lavatory, DVD system, 110v outlets, WiFi, and reclining seats. Our coaches work well for this type of tour.

We also have school buses, but I think 45 adults would max their capacity. Also, there is no A/C on our School Buses. I am happy to quote it though, if you think it's an option.

I hope to be part of this. Please let me know if you have any questions or if you'd like to book. Again, THANK YOU!

Thank you!

Rob Wicklund

Accredited Passenger Transportation Operator

BEMIDJI BUS LINE, INC.

MISSISSIPPI RIVER HEADWATERS 1W1P POLICY MEETING

Mississippi River Headwaters Tour
Wednesday, July 31

Attendees: Policy Committee, Advisory Committee, Steering Team

Please read: TBD

Please bring: TBD

8:30am – 9:00am	Simple Breakfast and Departure	Beltrami County Administration Building
9:45 am – 10:30 am	Itasca State Park A natural History Park Naturalist	Miss. Headwaters Visitor Center
11:00 am – 11:20 am	Agricultural Lands Clearwater SWCD No-Till Chester Powell	Nelson Farm, Solway
11:45 am – 12:05 pm	Urban Lands Bio-Retention Basins Zach Gutknecht	Paul and Babe, Bemidji
12:15 pm – 1:00 pm	Lunch	TBD
1:20 pm – 1:35 pm	Environmental Sensitive Areas Cass Lake Super Fund Site TBD	Cass Lake
1:35 pm – 2:00 pm	Forestry Chippewa Forest Management USFS	Chippewa National Forest
2:35 pm – 3:00 pm	Watercourse Recovery Winnie Dam ACOE	Winnie Dam
3:30 pm – 4:00 pm	Lakeshed Lake Shore Itasca Waters	Deer Lake
4:00 pm – 5:15 pm	Back to Bemidji	Beltrami County Administration Building

Additional Instructions:

MISSISSIPPI RIVER HEADWATERS 1W1P POLICY MEETING

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2:35 pm – 3:00 pm	Watercourse Recovery/Lakeshed Winnie Dam ACOE & Itasca Waters	Winnie Dam
3:00 pm – 4:20 pm	Back to Bemidji	Beltrami County Administration Building

Additional Instructions:

MISSISSIPPI RIVER HEADWATERS 1W1P POLICY MEETING

Mississippi River Headwaters Tour
Wednesday, July 31

Attendees: Policy Committee, Advisory Committee, Steering Team

Please read: TBD

Please bring: TBD

8:30am – 9:00am	Simple Breakfast and Departure	Beltrami County Administration Building
9:45 am – 10:30 am	Itasca State Park A natural History Park Naturalist	Miss. Headwaters Visitor Center
11:00 am – 11:15 am	Agricultural Lands Clearwater SWCD No-Till Chester Powell	Nelson Farm, Solway
11:40 am – 12:00 pm	Urban Lands Bio-Retention Basins Zach Gutknecht	Paul and Babe, Bemidji
12:10 pm – 12:55 pm	Lunch	TBD
1:15 pm – 1:25 pm	Environmental Sensitive Areas Cass Lake Super Fund Site TBD	Cass Lake
1:25 pm – 1:50 pm	Forestry Chippewa Forest Management USFS	Chippewa National Forest
2:25 pm – 2:50 pm	Watercourse Recovery/Lakeshed Winnie Dam ACOE & Itasca Waters	Winnie Dam
2:50 pm – 3:45 pm	Back to Bemidji	Beltrami County Administration Building

Additional Instructions:

MISSISSIPPI RIVER HEADWATERS 1W1P POLICY MEETING

Mississippi River Headwaters Tour
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Attendees: Policy Committee, Advisory Committee, Steering Team

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8:30am – 9:00am **Simple Breakfast and Departure** **Beltrami County Administration Building**

9:45 am – 10:30 am **Itasca State Park** **Miss. Headwaters Visitor Center**
A natural History | Park Naturalist

11:00 am – 11:15 am **Agricultural Lands** **Nelson Farm, Solway**
Clearwater SWCD No-Till | Chester Powell

11:40 am – 12:00 pm **Urban Lands** **Paul and Babe, Bemidji**
Bio-Retention Basins | Zach Gutknecht

12:10 pm – 12:55 pm **Lunch** **TBD**

1:25 pm – 1:50 pm **Lakeshed/AIS** **Cass Lake**
Knutson Dam | Beltrami County

2:05 pm – 2:25 pm **Forestry** **Chippewa National Forest, Norway Beach**
Chippewa Forest Management | USFS

2:55 pm – 3:25 pm **Watercourse Recovery** **Winnie Dam**
Winnie Dam | ACOE & Itasca Waters

3:25 pm – 4:20 pm **Back to Bemidji** **Beltrami County Administration Building**

Additional Instructions: