RIVER & LAKE FOCUSED RECREATION

Increased River and Lake-Focused Recreation

The following section summarizes some trends in river and lake focused recreation across the Minnesota River Basin. Findings show more boat access points and interest in boating and paddling. There appears to be a renewed interest in fishing across the basin with bigger walleyes and catfish being caught as well as more sturgeon and paddlefish. Although health concerns remain with swimming in rivers and streams, more people are visiting State Parks and taking advantage of recreational opportunities across the basin.

The DNR performs an "Awareness and Satisfaction Survey" to a random sample of Minnesota residents. In the 2000 survey, the number one environmental issue among survey respondents continued to be: "The whole area of protecting lake and rivers, surface water use, and shore land protection. Whether it is protecting lakes and rivers from waste, controlling milfoil, managing lakeshore development, or protecting wetlands, this general area has been of the most concern, and a source of some dissatisfaction."



"The Minnesota River winds for 330 miles through the heart of Minnesota. It also winds through the hearts of many Minnesotans. It is clear from talking to people who live on its banks, float on its currents, embrace its history, that there is a growing awareness of the value of this remarkable resource." — John Cross

Constitutional Amendment The Clean Water, Land and Legacy Amendment



Source: Legislative Coordinating Commission's Geographic Information Services In 2008, a state constitutional amendment to bolster funding for the outdoors was supported by Minnesotans and particularly by residents in the Minnesota River Basin. On the map at left, a majority of "yes" votes is depicted as green. It was passed by 56 percent across the state and received particularly strong support in southern Minnesota.

The Amendment will likely raise between \$270 million and \$300 million to pay for natural resources programs, cleaning up our waters, rivers and lakes, funding park and trail projects and supporting arts, historical and other cultural programs. The amendment reads: "Shall the Minnesota Constitution be amended to dedicate funding to protect our drinking

water sources; to protect, **Distribution of Amendment Funds** enhance and restore our 1975% for arts and cultural heritage wetlands, prairies, forest, 33% to restore, protect and and fish, game and wildlife enhance wetlands, prairies. forest and habitat for fish, habitat; and to protect, game and wildlife enhance, and restore our lakes, rivers, streams, and 14.25% to protect parks and trails groundwater by increasing the sales and use tax rate beginning July 1, 2009, by three-eighths of one 33% lakes, rivers and streams to protect, enhance, restore water quality in lakes, rivers and streams percent on taxable sales until the year 2034." with at least 5 percent of the fund to be spent to protect drinking water

http://mrbdc.mnsu.edu/mnbasin/trends

State Park Visitation Selected Minnesota's State Park visitation rates increase

The Minnesota River Valley has seven state parks, one state recreation area (Minnesota Valley) and one wayside area (Joseph R. Brown) going from Fort Snelling at the confluence with the Mississippi River all the way out to Big Stone Lake near the state's western border. Other state parks include Lac qui Parle, Upper Sioux Agency, Flandrau (on the Cottonwood River), and Minneopa. Each of the state parks offers water-based recreation opportunities including swimming, fishing and paddling, along with access to the nearest waterbody. Annual visitation rates range from around 40,000 to almost 800,000.

Big Stone Lake State Park

Located along the northeastern shore of the 26-mile long lake on the South Dakota border, this park features a boat launch, swimming beach, campground and Bonanza Education Center. Big Stone Lake State Park was established in 1961.

Visitation Overview

- Construction of a comfort station (showers and flush toilets) and swim beach since 1987.
- More people visiting from urban areas.
- Lake access is No. 1 reason for visitation.
- Campsites are close to the shoreline.
- Good fishing opportunities especially being a border lake and having an earlier fishing opener than South Dakota.
- Boat access areas are in good condition.
- Summer algae blooms have negative impact.



Flandrau State Park

The Cottonwood River flows through this park located on the edge of New Ulm. Facilities include a swimming pond, trails, campgrounds and group camp area. Established in 1930s, it once featured a 200-acre reservoir on the Cottonwood.

Visitation Overview

- Swimming pond is a big draw biggest reason for visitation increase after it was built in 1989.
- During nice weather a lot of people come out to use the pond.

Fort Snelling State Park

This day-use only park sits at the confluence of the Minnesota and Mississippi rivers. Facilities include extensive trail system, swim beach and visitor center. Fort Snelling State Park was established in 1961 and is linked to the Minnesota Valley National Wildlife Refuge.

Visitation Overview

- Increase in visitation is likely due to rising gas prices—\$4.00 in summer of 2008.
- Large number of visitors come from the Twin Cities area.
- Park manager assumes this increase is not tied to the river.



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Paddling & Boating Boating, canoeing, kayaking on the rise



Paddle quietly and feel the peace. Brush your hands on the 3.8 million year old granite outcroppings. Be startled by the slap of a beaver's tail, and be surprised by the butterflies and the eagles soaring over head. — Dennis Fredrickson, Minnesota State Senator

Minnesota Number One in Nation: Boats per Capita With approximately 900,000 registered boats, Minnesota

is number one in boats per capita in the United States. In fact, there is about one boat for every six people in the state. Recreational boating (which includes fishing from a boat) is one of the largest recreational activities in Minnesota. It is ranked second only to walking as an outdoor pursuit among Minnesota adults (DNR, 2005).

Most of Minnesota boating is motorized. Currently, only one in five registered boats in Minnesota is a canoe or kayak. In 2008, within the 37 county Minnesota River Basin, there was a total of 374,545 watercrafts registered and 79,290 canoe and kayaks registered. At 21 percent, this is similar to statewide trends.



Canoes and kayaks are used mainly on lakes in Minnesota (73% of use) and less frequently on rivers and streams (27% of use). Although used less than lakes, a statewide DNR survey showed that rivers have a positive image for paddlers. Survey respondents noted that their most important reasons for paddling were to enjoy nature (natural scenery, wildlife), to get away from life's usual demands (experience quiet, fresh air, and solitude), be with family and friends, to feel connected to nature, to catch fish, and to exercise. The survey also found that most canoeing and kayaking occurs near home within an hours drive of home (DNR, 2005).

Scenic & Recreational River Designation

The Minnesota River was added to Minnesota's Wild & Scenic Rivers Program in 1977. The designated stretch extends from Lac Qui Parle Dam to Franklin.



Canoe and Kayak Water Trail Designation & Maps



The Minnesota DNR designated portions of the mainstem Minnesota River and some tributaries as "Water Trails." DNR has developed a series of canoe and kayaking "Water Trail" maps. The detailed maps include information about public accesses and campsites along the river.

These facilities are free and open to Water Trail users.

Water Trails in the Basin

- Chippewa
- Minnesota 4 sections
- Redwood
- Cottonwood
- Pomme de Terre
- Watonwan



http://www.dnr.state.mn.us/watertrails/minnesotariver/index.html http://www.dnr.state.mn.us/water_access/counties.html

Recent Paddling Books Published

Recent paddling books published indicate increased interest and demand by recreationalists. "Paddling Minnesota" was published in 1999 and "Paddling Southern Minnesota" was published in 2007.



http://mrbdc.mnsu.edu/mnbasin/trends

River & Lake Recreational Access

Easier access-more boat ramps and access points

Overview

The Minnesota River served as an important means of transportation for American Indians along with early explorers and European settlers. Henry David Thoreau traveled up the river in 1861 on a steamboat, the principal means of movement until the construction of railroad lines starting in the 1870s. People began to turn their back on the river as only a few brave souls ventured onto the river to paddle. Until the 1970s and 1980s there were only a handfull of established water access points on the Minnesota River and its tributaries. That all changed when the Department of Natural Resources began working with local government agencies and nonprofit groups to develop access points and canoe camping sites up and down the river.

Water Access Points

- 1960s 7 boat launches from Big Stone Dam to the Twin Cities
 –River Survey by Clyde Ryberg and State Senator Henry McKnight in 1963.
 3 improved boat accesses
 –Biological Reconnaissance from Lac qui Parle Dam to Mankato in 1966.
- **Today** 46 water access points from the Big Stone Dam to Fort Snelling (There are another 12 water access points on Big Stone Lake for both MN and SD)

Canoe & Kayak Rentals

Today there are a number of ways to get out and paddle the Minnesota River or one of its many tributaries. Ten groups and businesses across the basin rent canoes and/or kayaks (Clean Up the River Environment – CURE; Redwood Cottonwood Rivers Control Area (RCRCA), Minnesota River Adventures – Catfish Tom; Upper Sioux Agency State Park; MN State University Mankato Recreation Center; A-Z Rental in Mankato; Kato Canoe & Kayak; Dawson Mini-Mall; Mitlying's Bait and Lentz Outfitters (Echo). In addition, a nonprofit group in Granite Falls is working to restore a flood damaged building on the Minnesota River to be used as a canoe/kayak rental shop.

Groups that Sponsor Paddles

Six nonprofit groups established in the 1990s are working to help promote paddling opportunities in the Minnesota River Basin (CURE, Twin Rivers Canoe & Kayak Club, Chippewa River Canoe Club, Mankato Paddling & Outings Club, Tatanka Bluffs and the Minnesota River Watershed Alliance). To award people who have paddled a variety of rivers in the Minnesota River Basin, CURE offers the Prairie Paddle Patch (paddle 6 rivers in the Upper Minnesota River Watershed) and the Watershed Alliance sponsors three different paddler patches/decals. The Tatanka Bluffs nonprofit organization is spearheading a project to improve access points, camp sites, drinking water hydrants and other paddling-related infrastructure.

Paddling Trips

A number of annual paddling trips are offered by nonprofit organizations and watershed groups in the Minnesota River Basin (Chippewa River Watershed Project, Lac qui Parle Watershed Project, CURE, RCRCA and the Mankato Paddling & Outing Club). These organized paddles help people experience the different rivers and promote recreational opportunities.



Minnesota River at Kinney, Upper Sioux Agency



Minnesota River at Vicksburg Park, Renville County



Minnesota River at Riverside Park, New Ulm



Minnesota River at Judson



Redwood River

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Swimming Elevated bacteria levels pose risks to swimmers' health

Because it has not been well documented, trends in swimming are difficult to assess. Absent historical studies, some anecdotal evidence provides glimpses into perceived and actual risk to swimming in the lakes and rivers throughout the basin.

1923 — Anecdotal Evidence of Swimming in River

In 1923, Alice McCormick used to take a dip in the shallows of the Minnesota River. Now 82, she still lives along the river. What was different about the old days? "My dad used to cut ice from the river" to keep food cool in the summer. She said she wouldn't swim in the river today. "I wonder if they'll ever be able to clean it up," she said.

River In Crisis by the Star Tribune, December 12, 1999

1934 — Minnesota Department of Health deems river unfit for human contact

In 1934, the Minnesota Health Department found that the river suffered from the effects of pollution coming from industrial, domestic and farm runoff. Their report found that although the river was "used for bathing at a great many places," it was unfit even then for human contact. At that time, habitat within the Minnesota River system was already considered "unfit for the development of fish."

Working Together: A Plan to Restore the Minnesota River – 1994 – Minnesota River Citizens' Advisory Committee Final Report to MPCA.

1966 — Minnesota Department of Health tests show bacteria counts in excess of safe levels

Swimming in the Minnesota River is not advisable. Water tests conducted by the State Board of Health show coliform bacteria counts in

excess of safe levels. The Minnesota River A Biological Reconnaissance – Lac qui Parle Dam to Mankato; Minnesota Conservation Department Division of Game and Fish; Special Publication No. 37 – September 1966

Today-Minnesota Department of Health Standards

Safe to swim standards are determined by the Minnesota Department of Health based on bacteria levels. For most water bodies in the state, standards for bacteria are designated by law to support full or partial body-contact recreational



Redwood River rope swing

uses such as swimming, wading, boating, and fishing. The presence of fecal coliform or *E. coli* bacteria is an indicator of pollution caused by sewage or animal manure. When standards are exceeded, the water is considered impaired and not fully supporting the designated use. Many water bodies across the basin do not meet state water quality standards for bacteria and are listed on MPCA's Impaired Waters list. Monitoring data show indicator bacteria (fecal coliform and *E. coli*) levels are elevated across the entire basin with greater than 90 percent of monitored streams exceeding health standards for bacteria. People using impaired waters for recreation are at risk for exposure to pathogens (MPCA, 1997). Another swimming concern is Toxic Blue Green Algae (see lakes).

Bacteria in the Minnesota River Basin

E. coli concentrations in colony forming units per 100 milliliters



The map above shows summer *E. coli* concentrations (geometric mean) across the basin for sites with at least 20 samples. The state water quality standard for *E. coli* is 126 cfu/100ml.



Kids Wading in Seven Mile Creek

Fishing Fishing appears to be on the rise

Fishing the Minnesota River & Tributaries

C teady increases in fishing angling licences across Minnesota and within the 37 counties within Minnesota River Basin suggests a growing interest in fishing. Bait shop owners are seeing more customers and long time fishermen are noting catching more rare species such as sturgeon and paddlefish.



300,000

250,000

200,000

150,000 100,000

50,000



Walleye caught in the Minnesota River



Individual Angling License Sales in Minnesota

An increase in angling licenses in Minnesota from 1957 to 2008 suggests increasing rates of fishing across the state.



"People, still lament the water quality of the river, but it has really improved. You can see it with your own eyes. When you're seeing sturgeon - everyone is catching them that's a water quality indicator. And people are catching paddlefish, that's a water quality indicator. It's not great. But it's not all doom and gloom. A lot of progress has been made."

Scott Sparlin - Friends of the Minnesota River Valley, CCMR, Fisherman

Fish Consumption Advisories Remain

The Minnesota Department of Health issues fish consumption advisories for lakes and streams in Minnesota where fish have been tested. The advisories contain recommended rates of consumption based on contaminant levels in the fish. The Minnesota Department of Health provides two types of advice on how often fish can safely be eaten: 1) Statewide Safe Eating Guidelines and 2) Site-Specific Advice. The primary contaminants of concern in the Minnesota River Basin are mercury and polychlorinated biphenyls, or PCBs. Current consumption advice for the Minnesota River shows recommended restrictions for the upper portion of the basin (above Minnesota Falls) primarily due to mercury in fish. Below Minnesota Falls, fish are more likely to be contaminated with PCBs and carry more stringent consumption advisories than the upper portion of the basin. To learn more about advisories, see: http://www.health.state.mn.us/divs/ eh/fish/eating/index.html

Mercury Levels in Fish Rising

A recent MPCA study found that after falling for years, mercury levels in large fish are unexpectedly on the rise. The study looked at methylmercury concentrations in northern pike and walleye in 845 selected lakes throughout Minnesota over a 25-year period from 1982 to 2006. Mercury levels in northern pike and walleye fell 37 percent from 1982 to 1992 after the state began limiting the discharge of mercury. From 1996 to 2006 mercury concentrations in fish studied rose by 15 percent. MPCA scientist Bruce Monson said the source of the mercury probably is not local because the trend is statewide. Monson said the cause is probably either increased global mercury emissions by sources outside the United States, such as China or India, or factors associated with climate change, or both. Global mercury emissions increased between 1990 and 1995, largely because of an increase in electricity produced by coal-fired power plants in Asia. Reversing this trend requires a worldwide solution and the United States recently began negotiations for a new global treaty to control mercury pollution (MPCA, 2009).

0 2000 2002 2004 2006 2008

Individual Angling License Sales in the Minnesota River Basin

Angling license sales in the 37-county Minnesota River Basin show a steady increase from 2000-2008.

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Fishing continued

Survey of Bait Shops Owners in the Minnesota River Basin



Many diverse bait shops in both rural and metro areas can be found across the Minnesota River Basin. Some are family owned and operated, while others are larger corporate sporting goods stores. To get a better

understanding of fishing trends we interviewed seven bait shop owners around the basin and asked them a series of questions related to fishing and water quality.

A summary of their responses follow:

• Most of the bait shop owners report increased demand for fishing supplies. For some it is either very good or good. "I have seen an increase in the number of [people fishing]. More people fishing brings a greater demand for the supplies."

• In terms of selling fishing licenses, it has stayed relatively stable - for some either a slight increase or decrease. "I think it is steady, not really up or down."

• New customers are a regular occurrence for the bait shop owners, with a majority being males in their early to mid twenties. "Every day I have new people. Parents bring in their kids and they keep coming back. I think there are just about as many men as women and all kinds of ages. Maybe a little older people. If parents do a lot of fishing, the kids will take after that."

• There has been no change in the number of Minnesotans fishing compared to those from out-of-state. "Quite a few people from Iowa are fishing for catfish. I would say it is about the same as the past."

• Some of the bait shop owners have noticed a change in the type of fish being caught. "Bigger sturgeon, shovelnose sturgeon, and paddlefish [are being caught.] This is a sign that the river is cleaning up. Walleyes are bigger. More people are catching and releasing catfish. A few years ago 20-30 pound catfish were good, but the biggest this year was around 66 [pounds]. The average is the upper 30 pounds now. Those doing catch and release are better. The sturgeon increase was a big surprise, and the bigger walleyes." Others report it has been pretty constant. Most of them have seen more catfish being caught.

• All of the bait shop owners noted improvements in water quality with changes in the level of pollutants and fishing projects. "A lot cleaner, not as murky, foamy [as it was]15 years ago. [I] attribute [it] to people cracking down on [the] river, people not dumping as much."



Fishing for Catfish





"Not too many years ago, tributaries pouring into the Minnesota River near Shakopee and Chaska would be foaming. We don't have that ... nor the real bad odor that was there. We have seen personally and through increased customers the comeback of the Minnesota River as a prime fishing haunt." Terry Hennen, Owner, Sport Stop Bait Shop, Shakopee



Shovelnose Sturgeon caught in the Minnesota River



Fishing continued

Commercial Fishing

The Minnesota Department of Natural Resources (DNR) issued a permit to commercial fisherman for seining commercial species, primarily smallmouth and largemouth buffalo in the Minnesota River near New Ulm between State Highway 4 and State Highway 169 and cutoff oxbow lakes. According to the DNR, they saw this as an opportunity to observe, learn and subsequently discuss the future of commercial fishing in the river and the potential for using large mesh seines and/or observing commercial seining for sampling large Minnesota River fishes.

Fishing Technique

The commercial fishermen used a 5-inch stretch seine to deploy across the oxbows as they drove the fish using a wall of sound created by beating on the boats with metal stakes and using modified funnel to plunge the water. Once the boats reached the unanchored end of the seine a boat towed it over to the opposite bank to capture the fish. Small fish were allowed to escape as the rest of the catch was cribbed along the shore to be held for later transport by truck to New York for live sale.





What did they Catch?

This commercial fishing operation took place over two days in May and two days in June. Commercial fish netted during the seine included large numbers of bigmouth buffalo along with smaller amounts of common carp, smallmouth buffalo, and river carpsuckers. Game fish caught and released included northern pike, walleye and catfish. Numerous paddlefish were also caught and released ranging from 8 pounds to 32 pounds. The nets also captured false map turtles and softshell turtles.

Fish Hauls

- **First Haul** (May 19th) total catch estimated at 5,000 pounds; largely bigmouth buffalo (represented approximately two thirds of the catch), smallmouth buffalo, common carp (one third of the catch) and carpsuckers; four game fish two northern pike (estimated at eight and ten pounds) and two walleye (estimated six pounds).
- Second Haul (May 19) approximately 10,000 pounds; proportionally similar to the first catch in both species and numbers (carpsuckers might have slightly more abundant); approximately 20 adult gizzard shad lodged in the mesh; a few freshwater drum along with one northern pike, two walleye and one white bass.
- Third Haul (May 20) estimated 2,000 to 3,000 pounds; predominately bigmouth and smallmouth buffalo with smaller numbers of common carp and carpsuckers; one northern pike (estimated at 8 pounds), two walleye (estimated at 7 pounds) and one paddlefish (measured 42 inches and weighed 9 pounds).
- Forth Haul (June 4) estimated total catch between 10,000 and 15,000 pounds; predominately bigmouth with small numbers of common carp, smallmouth buffalo and river carpsuckers; one gizzard shad and eight freshwater drum; northern pike (9 to 12 pounds) and walleye (6 to 9 pounds); four paddlefish (8 to 32 pounds)
- **Fifth Haul** (June 5) estimated catch of 1,000 to 3,000 pounds of buffalo fish; two paddlefish of 48 and 47.5 inches ("the paddlefish swam away strongly"); three walleye (5 to 7 pounds).

Fishermen caught an estimated 28,000-36,000 pounds of fish over four days. Commercial fish netted during the seine included large numbers of bigmouth buffalo along with smaller amounts of common carp, smallmouth buffalo, and river carpsuckers.