



MN DNR Northeast Regional Headquarters
Shelly Patten, Northeast Regional Director
1201 E. Hwy 2
Grand Rapids, MN 55744

May 09, 2022

Melissa Barrick
District Manager
Crow Wing Soil & Water Conservation District
322 Laurel Street # 22
Brainerd, MN 56401

Dear Melissa Barrick,

Thank you for inviting the Minnesota Department of Natural Resources (DNR) to provide input as you and other local partners begin developing a Comprehensive Watershed Management Plan for the Mississippi River - Brainerd Watershed. I am writing on behalf of DNR Commissioner Sarah Strommen to share our priorities and express our support.

Attached are priorities we encourage you to address in your plan—keys to protecting and improving the health of the watershed. A plan centered on these priorities will help sustain water resources in ways that enhance the quality of life for all who live, work, and enjoy the outdoors in this watershed.

The DNR can supply scientific data and information related to the attached priorities. We also offer tools and services that can help stakeholders get to know the watershed and explore water resource values.

Our lead staff person for this One Watershed One Plan (1W1P) project is Seth Goreham, Ecological & Water Resources District Supervisor, 218-203-4353, Seth.Goreham@state.mn.us, based at the DNR office in Brainerd. Please contact Seth if you have questions or want more information about the attached priorities or the types of technical support we can provide.

Also feel free to contact me directly if needed. As the DNR's Regional Director, I am committed to ensuring that DNR staff in the region are organized to support 1W1P planning efforts and the resulting plans. We greatly value the opportunity to contribute to the process and hope the information we provide is helpful.

Sincerely,

Shelly Patten
MN DNR Northeast Regional Director

cc: Darrell Schindler (DNR), Grant Wilson (DNR) Seth Goreham (DNR), Barbara Weisman (DNR), Chris Pence (DNR), Bonnie Finnerty (MPCA), Casey Field (MDA), Chad Anderson (MDH)

Minnesota Department of Natural Resources - Northeast Regional Headquarters
1201 E. Hwy 2 | Grand Rapids, MN 55744

DNR Priorities for the Mississippi River – Brainerd Watershed

Different parts of the Mississippi River – Brainerd Watershed require different types of management strategies, due to different land cover and land use types. The northern portion of the watershed is dominated by wetlands, forests, and lakes, and contains some of the watershed's highest quality waterbodies. The central portion is the transition zone from northern forests to southern prairies. The southern portion is defined by a largely agricultural landscape. This diverse land cover results in a variety of habitat types and significant biodiversity. The range of cover types and land use activities also presents unique challenges for managing watershed health. Overall, the watershed has good water quality and abundant water resources that provide important recreational and economic benefits to the region. In general, however, catchments with largely natural landscapes in the forested northern areas of the watershed would benefit from protection strategies. Catchments in agricultural southern areas have appreciably poorer water quality and would benefit from restoration strategies. Catchments in the central transition zone from forests to prairie require a mix of protection and restoration strategies.

Our priority resource concerns and opportunities for the watershed are listed below. These priorities were identified in consultation with an interdisciplinary team of DNR natural resource management specialists from multiple DNR Divisions whose work areas include this watershed. The identified priorities (in the righthand column below) relate most closely to four of the high-level issues that Comprehensive Watershed Management Plans are expected to consider (in the lefthand column below): water quality, shoreland and riparian zones, habitat and outdoor recreation, and flood damage reduction.

High-Level Priority Issue	Priority Resource Concerns & Opportunities
Water Quality and Land Use	<ul style="list-style-type: none">• Forest Management: The largest single land cover in the watershed is forests (33%). Healthy forests enhance water quality and quantity by filtering pollutants and sediment from overland flow, capturing rainwater and recharging underground aquifers, and reducing erosion and flood damage potential.<ul style="list-style-type: none">○ Manage, maintain, and enhance forest cover through existing forest stewardship plans, programs, and partnerships. Private forest lands are especially vulnerable to conversion to non-forest land uses. The DNR Forest Stewardship Program helps private woodland owners manage their woods through advice, cost-share programs, and woodland stewardship plans.○ Encourage use of the voluntary site level management guidelines on state and private lands. The guidelines are intended to reduce the potential for negative water quality impacts resulting from forest-management activities. They include best management practices (BMPs) for stream and wetland crossings, erosion control, and riparian zone management.• Agricultural BMPs: The southern portion of the watershed is dominated by an agricultural landscape. Without conservation practices in the right places, agriculture can contribute to nonpoint source pollution which can negatively impact water quality, and lead to decreased soil health, increased erosion, and habitat loss.<ul style="list-style-type: none">○ Continue to promote soil and water conservation practices such as

	<p>conservation tillage, cover crops, crop rotation, and rotational grazing to reduce soil erosion and field runoff and enhance soil health and resiliency.</p> <ul style="list-style-type: none"> ○ Continue monitoring compliance with the Minnesota Buffer Law and positive engagement with landowners. Look for additional opportunities to provide buffer incentives to private landowners on working lands through existing programs like Reinvest in Minnesota, Conservation Reserve Enhancement Program, and Conservation Reserve Program. ○ Implement nutrient and manure application and storage strategies identified in the Watershed Restoration and Protection Strategy (WRAPS) Report. <ul style="list-style-type: none"> ● Priority Waterbodies: The WRAPS Report prioritizes specific waterbodies for protection and restoration strategies. MPCA and DNR can provide data and technical assistance to help LGUs further prioritize specific streams and lakes and refine protection and restoration strategies. The DNR has data that may help refine strategies for both large, deep lakes and shallow lakes including: lakes of phosphorus sensitivity significance, lakes of biological significance, and priority shallow lakes and wildlife lakes. ● Aggregate Mining: Consider using existing land use ordinances to create mining districts that include BMPs for developing and redeveloping mining operations and associated water use. This could help build or retain the economic benefits of mining while minimizing long-term impacts to water quality and habitat. Additionally, there may be opportunities within the watershed to reclaim abandoned aggregate pits to protect water quality and enhance habitat value.
Shoreland and Riparian Zones	<ul style="list-style-type: none"> ● Land Use Controls and Shoreland Ordinances: Development within the watershed is increasing, especially in shoreland areas. Marginal lake lots and sensitive riparian areas are at risk of being overdeveloped. <ul style="list-style-type: none"> ○ In addition to enforcing existing local shoreland ordinances, consider adopting low-impact development standards and higher shoreland standards. The DNR's Shoreland Management Program has resources for local governments that administer shoreland ordinances. See especially the Innovative Shoreland Standards Showcase. ● Natural Shorelines and Buffers: Protecting natural shorelines is much easier than restoring them. <ul style="list-style-type: none"> ○ Promote natural shorelines using native plants for stabilization. Native plants along shorelines help reduce erosion and keep nutrients from getting into the water, while providing important habitat corridors for wildlife. The DNR has resources on maintaining and restoring natural shorelines on its Shoreland Management website. ○ Consider land use controls that limit the use of riprap and other hard armoring approaches along shorelines. ○ Continue to monitor compliance with the Minnesota Buffer Law and positive engagement with landowners. ● Educational Outreach and Engagement of Private Shoreland Owners: Most of the watershed's shorelands are managed by private landowners. Continue to promote outreach programs and expand educational opportunities that encourage private

	<p>shoreline management. The DNR's Shoreland Management Program has many resources available to shoreland property owners.</p>
Habitat & Outdoor Recreation	<ul style="list-style-type: none"> • Invasive Species: Healthy forests, wetlands, prairies, and waterbodies with thriving native plant communities can limit invasive species growth. <ul style="list-style-type: none"> ○ The DNR offers aquatic invasive species grants to local government units. ○ The DNR has outreach and educational materials to help organizations and individuals promote aquatic and terrestrial invasive species prevention activities in their communities. ○ Consider opportunities to coordinate invasive species management activities on private lands adjacent to state managed lands. • Critical Habitat: Protect, restore, and enhance critical habitats to improve water quality, increase connectivity, maintain biodiversity, and support native fish, wildlife, and plant communities. <ul style="list-style-type: none"> ○ Promote partnerships and projects aimed at habitat conservation for species of greatest conservation need. The Brainerd Lakes Conservation Focus Area, outlined as part of the State's Wildlife Action Plan, includes a large portion of the watershed. The DNR can help identify areas within the Focus Area. Grants are available to develop and implement habitat projects that directly benefit species of greatest conservation need identified in the plan. ○ Consider easement or fee title acquisition of intact forest patches and wildlife travel corridors for habitat protection. ○ Protect waterbodies that support important fish and plant communities such as lakes and streams with a high fish and/or plant index of biological integrity, other biologically significant lakes (with unique fish, birds, amphibians, or plants), wild rice lakes, shallow lakes, and cold water refuge lakes. • Mississippi River Corridor: The Mississippi River is a state water trail offering recreational opportunities such as boating, kayaking, canoeing, camping on the river and more. Good water quality from Aitkin to Little Falls supports game fish such as walleye, northern, muskie, bass and panfish. The river is also an important habitat corridor for both game and nongame aquatic and terrestrial species. Support projects that enhance aquatic and terrestrial connectivity, protect and restore riparian and floodplain habitats for species of greatest conservation need, and enhance recreational opportunities.
Flood Damage Reduction	<p>Climate patterns for the watershed indicate an increase in the number and frequency of heavy precipitation events in addition to the increase of 4 inches of annual average precipitation observed in the last 20 years when compared to the historic record.</p> <ul style="list-style-type: none"> • Road/Trail-Stream Crossings: Improperly sized culverts can contribute to flooding and related repair costs, loss of floodplain connectivity, impacts to fish and aquatic organism habitats, and disruption of ecologically important stream functions. <ul style="list-style-type: none"> ○ Inventory stream crossings within the watershed and consider using the MN DNR Culvert Inventory Application to help collect and store the data. ○ When replacing culverts or other crossings, partner with state agencies

to help maintain or increase stream connectivity. Encourage best practices identified in DNR and MNDOT guidance, such as properly sized [floodplain culverts](#) and [designing crossings for stream connectivity and aquatic organism passage](#). DNR staff can assist local road authorities with road-stream crossing design.

- **Reconnecting Streams to their Floodplains:** Historic ditching and straightening of natural watercourses have been identified in the WRAPS Report as potential stressors of biologically impaired stream reaches, especially in the northern portion of the watershed. Reconnecting selected impaired streams to their floodplains would not only help restore water quality but would also significantly reduce future flood damage and enhance wildlife habitat in riparian corridors. DNR staff can help identify ditched or straightened stream reaches that are good candidates for stream restoration efforts.
- **Floodplain Management:** Effective floodplain ordinances can reduce public expenditures related to flood damages. The DNR offers assistance to local floodplain administrators through the [Floodplain Management Program](#).
 - In addition to enforcing existing local floodplain ordinances, consider adopting higher standards for flood protection. The DNR's Floodplain Management Program recently updated the [Minnesota State Model Floodplain Ordinance](#) which includes optional language for higher standards. DNR staff are available to help communities update floodplain ordinances.
- **Wetland Restoration and Protection:** Encourage wetland restoration projects to help store and retain flood waters. Preserve existing wetlands through continued enforcement of the Wetland Conservation Act.