BOARD OF WATER AND SOIL RESOURCES 520 LAFAYETTE ROAD NORTH ST. PAUL, MN 55155 WEDNESDAY, SEPTEMBER 25, 2024

AGENDA

9:00 AM CALL MEETING TO ORDER

PLEDGE OF ALLEGIANCE

ADOPTION OF AGENDA

MINUTES OF AUGUST 29, 2024 BOARD MEETING

PUBLIC ACCESS FORUM (10-minute agenda time, two-minute limit/person)

INTRODUCTION OF NEW STAFF

- Tyler Knutson, Regional Training Conservationist
- Denise Lauerman, Office and Administrative Specialist
- Shane Bugeja, Board Conservationist
- Gabrielle Holman, Grants Compliance Specialist

CONFLICT OF INTEREST DECLARATION

A conflict of interest, whether actual, potential, or perceived, occurs when someone in a position of trust has competing professional or personal interests, and these competing interests make it difficult to fulfill professional duties impartially. At this time, members are requested to declare conflicts of interest they may have regarding today's business. Any member who declares an actual_conflict of interest must not vote on that agenda item. All actual, potential, and perceived conflicts of interest will be announced to the board by members or staff before any vote.

REPORTS

- Chair & Administrative Advisory Committee Todd Holman
- Executive Director John Jaschke
- Audit & Oversight Committee Joe Collins
- Dispute Resolution and Compliance Report Travis Germundson/Rich Sve
- Grants Program & Policy Committee Mark Zabel
- RIM Reserve Committee Jayne Hager Dee
- Water Management & Strategic Planning Committee Joe Collins
- Wetland Conservation Committee Jill Crafton
- Buffers, Soils & Drainage Committee LeRoy Ose
- Drainage Work Group Neil Peterson/Tom Gile

AGENCY REPORTS

- Minnesota Department of Agriculture Jeff Berg
- Minnesota Department of Health Steve Robertson
- Minnesota Department of Natural Resources Sarah Strommen
- Minnesota Extension Joel Larson
- Minnesota Pollution Control Agency Katrina Kessler

ADVISORY COMMENTS

- Association of Minnesota Counties Brian Martinson
- Minnesota Association of Conservation District Employees Mike Schultz
- Minnesota Association of Soil & Water Conservation Districts LeAnn Buck
- Minnesota Association of Townships Eunice Biel
- Minnesota Watersheds Jan Voit
- Natural Resources Conservation Service Troy Daniell

COMMITTEE RECOMMENDATIONS

Grants Program and Policy Committee

- Clean Water Legacy Partners Program FY24-25 program authorization Annie Felix-Gerth DECISION ITEM
- 2. FY25 Lake Superior Basin Implementation Grants Ryan Hughes DECISION ITEM

Northern Region Committee

- 1. Bois de Sioux Watershed District Boundary Enlargement Petition Ryan Hughes DECISION ITEM
- 2. Sand Hill River Watershed District and Red Lake Watershed District Boundary Change Petition Ryan Hughes **DECISION ITEM**

UPCOMING MEETINGS

- Buffers Soils and Drainage Committee is scheduled for October 1st at 5:00 p.m. in St. Cloud.
- Central Region Committee is scheduled for October 7th at 2:30 p.m. in St. Paul and by MS Teams.
- Wetland Conservation Committee is scheduled for October 10th at 9:00 a.m. in St. Paul and by MS Teams.
- Grants Program and Policy Committee is scheduled for October 14th at 8:30 a.m. location TBD and by MS Teams.
- RIM Committee is scheduled for October 14th at 2:00 p.m. in St. Paul and by MS Teams.
- BWSR Board meeting is scheduled for October 23rd at 9:00 a.m. in St. Paul and by MS Teams.

ADJOURN

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BOARD ORDER

Boundary Change for the Sand Hill River Watershed District and Red Lake Watershed District

PURPOSE

Approve a boundary change between the Sand Hill River Watershed District and the Red Lake Watershed District.

RECITALS /FINDINGS OF FACT

- 1. A joint petition (Petition) for boundary change, dated December 11, 2023, from the Sand Hill River Watershed District (SHRWD) and the Red Lake Watershed District (RLWD), was received by the Board for the transfer of approximately 72.075 acres from SHRWD to RLWD.
- 2. The Board has reviewed the Petition for conformance with state law and rule and has determined that the Petition is valid in accordance with Minn. Stat. § 103D.251.
- 3. Legal notice of filing on the Petition, pursuant to Minn. Stat. § 103D.251, was published in the Fertile Journal on July 2, 2024 and July 9, 2024; and the Crookston Times on July 5, 2024 and July 12, 2024. Further, a copy of the notice of filing was sent to each affected city, county, and watershed district.
- 4. The legal notice of filing required within 30 days of the last date of publication of the notice, that at least one written request for hearing be received by the Board before a hearing will be held. The Board did not receive any written requests for a hearing therefore no hearing was held. The Board did not receive any comments on the Petition.
- 5. The Board assisted SHRWD and RLWD through the boundary change petition process, providing guidance, comments, and recommendations. All relevant, substantive, and procedural requirements of law and rule have been fulfilled. The Board has proper jurisdiction in the matter of approving a watershed district boundary change. The requested boundary change is consistent with the purpose and the requirements of Minn. Stat. § 103D.251. The boundary change, as proposed in the petition, would be for the public welfare and public interest and would advance the purpose of Minnesota Statutes Chapter 103D. The boundaries of the SHRWD and the RLWD as proposed in the Petition are more accurately based on the hydrology of the subject area than the present boundaries. The proposed boundary change should be approved per the petition. Therefore, Board staff recommends approval of the boundary change as petitioned.
- 6. On September 4, 2024, the Board's Northern Region Committee and staff met in Detroit Lakes to review and discuss the Petition. Members of the Committee that participated in the discussion included Committee Chair Rich Sve, Jeff Berg, Theresa Ebbenga, Chad Anderson, Todd Holman, LeRoy Ose, Neil Peterson, and Ron Staples. Board staff in attendance were Ryan Hughes, Northern Region Manager, and Brett Arne, Board Conservationist. Board staff recommended approval of the boundary change. After discussion, the Northern Region Committee voted to recommend approval of the Petition.

ORDER

The Board hereby orders that the boundaries of the Sand Hill River Watershed District and the Red Lal	ĸе
Watershed District are changed per the Petition as depicted on the maps, attached to this Order.	

Dated at St. Paul, Minnesota, this September 25, 2024.

	Date:	
Todd Holman, Chair		
Board of Water and Soil Resources		

BWSR Board Member Conflict of Interest in Grant Review – Disclosure Form

eived, potential, or	actual conflicts. As a	descriptions of conflict of interest pr BWSR Board member, appointed ac w process as indicated below. If I ha	cording to Minneso	ota Statute Section 103B.10	1, I am responsible for evaluating
_		la items. If you indicate that you do	not have a conflict ;	for an agenda item, you do	not need to fill out additional
Agenda Item	No conflict (mark here and stop for this row)	Grant applicant(s) associated with conflict (required if conflict identified)	Conflict Type (required if conflict identified)	Will you participate? (required if conflict identified)	Description of conflict (optional)
				Yes / No	
				Yes / No	
				Yes / No	
				Yes / No	



Full switch: Renville County farm's soil health transformation





Watershed-Based Implementation Funding is funded solely by the Clean Water Fund. WBIF grants support watershed planning partnerships throughout Minnesota.

A Renville County farm family is incorporating soil health practices into its entire 1,584-acre operation with support from a Watershed-Based Implementation Funding (WBIF) grant the Minnesota Board of Water and Soil Resources (BWSR) awarded to the Central Minnesota River Watershed Partnership (CMRWP) Joint Powers Board.

Schwindt Farms, Inc. — operated by Rick Schwindt and his son, Mitch — produces corn and soybeans in western Renville County. They first planted cover crops in fall 2023, incorporating several mixes that included cereal rye, kale, oats, lentils and barley. This spring, they practiced no-till across the farm for the first time.

"When switching to regenerative practices, I learned to spend more time on the farm and be interested in each stage of the crop," said Mitch Schwindt, who discussed the transition on behalf of the family. "Before, we did everything

the same for every field. (With these practices) you learn when to plant, when to terminate, when to spray, and just be more deliberate in the process."

The Schwindts worked with the Renville County Soil and Water Conservation District (SWCD) to secure a \$427,750 contract to support the transition. The contract requires them to maintain the soil health practices for three years, but Schwindt said they intend to continue indefinitely. Although the contract doesn't require a landowner match, Renville County SWCD Administrator Holly Hatlewick said converting the operation cost more than the funding provided. The contract draws from a \$1.33 million WBIF grant BWSR awarded to the CMRWP in September 2022 to support the Hawk Creek-Middle Minnesota Comprehensive Watershed Management Plan.

Local governments form planning partnerships to collaboratively write

Cover crops
emerged amid
corn stubble at
Schwindt Farms,
Inc. in western
Renville County. The
Schwindt family is
incorporating soil
health practices
into its entire 1,584acre farm with
support from WBIF
from BWSR.
Photo Credits:

Renville SWCD

Comprehensive Watershed Management Plans (CWMPs) through BWSR's One Watershed, One Plan (1W1P) program. These water plans identify the highest-priority resource concerns within a specific watershed or planning area. Once BWSR approves a plan, the partnership becomes eligible for WBIF. Actions in plans developed under the Metropolitan Surface Water Management Act and county groundwater plans are also eligible for WBIF.

Planning partnerships use WBIF to pursue projects based on a watershed's greatest needs. The Hawk Creek-Middle Minnesota CWMP identifies soil health practices as a priority goal to help reduce erosion and manage runoff. The partnership has also used WBIF for water storage projects — another priority identified in the CWMP.

"What WBIF allowed us to do is make scalable changes," said Hatlewick. "With WBIF, we're able to fund large contracts like the Schwindts' and actually move entire landscapes forward. It's nice to have a pot (of funding) ready when a willing landowner comes in."

More Minnesota farmers are adopting soil health practices each year. According to the USDA's Census of Agriculture, Minnesota saw a 31% increase in acres planted with cover crops from 2017 to 2022. According to the census, Minnesota is one of the Top 10 states for cover crops in the nation with more than 760,000 acres planted.

The Schwindts have used the funding to purchase new equipment, including an air seeder, to plant cover crops and soybeans. They've also adjusted existing equipment, such as a corn head for their



Mitch Schwindt, left, and his father, Rick Schwindt, stand in front of their combine. The corn head was modified to better manage their no-till system. WBIF dollars supported the equipment upgrade as part of a full-farm transition to incorporate soil health practices.

combine, to better manage residue in their no-till system. Schwindt said the family sold its traditional tillage equipment to fully commit to soil health practices. In addition to no-till and cover crops, the Schwindts are introducing conservation crop rotation by adding navy beans and cereal rye to their operation.

"Having this money helps us and we know it's a good investment in the future," Schwindt said. "Spending these dollars wisely is important."

Schwindt said erosion was a primary motivator when deciding to transition the entire operation.

"Last winter, there wasn't much snow cover," Schwindt said. "We saw a lot of neighbors with black snow in the ditches, and we didn't have any because of the no-till. There's a lot less soil blowing away."

Hatlewick said erosion is a concern for many Renville County producers.

"Many growers are struggling with watching their soil move," Hatlewick said. "That's a big piece of this — let's keep that raindrop where it lands. We're heavily drained in Renville County, there's a lot of water moving. All the basic principles of soil health — better infiltration, better nutrient absorption, less erosion, those are all benefits producers can see."

The Renville County SWCD was an early promoter of soil health practices: In 2015, the SWCD with its partners at the Hawk Creek Watershed Project launched a cover crop cost-share program that offers per-acre payments to producers implementing no-till, strip-till or cover crops. Payment rates vary based on which practices are implemented.

In April, the SWCD was among those selected by BWSR to receive an Alliance to Advance Climate Smart Agriculture grant, which will enable the district to support more farmers who implement soil health practices. The alliance program offers \$100 per acre or animal unit to

producers who voluntarily implement practices that sequester carbon, improve soil health, reduce greenhouse gas emissions and improve water quality. Hatlewick said the SWCD also helps connect area producers with other incentives, such as the USDA Natural Resources Conservation Service's Environmental Quality Incentives Program (EQIP).

The Renville County
SWCD also has invested
in staff training related to
nonstructural conservation
practices. The SWCD requires
technical staff to receive Job
Approval Authority for soil
health practices.

This spring, <u>BWSR awarded</u> a total of \$17 million to 40 <u>SWCDs in Minnesota</u> — including the Renville County SWCD — to support soil health staffing.

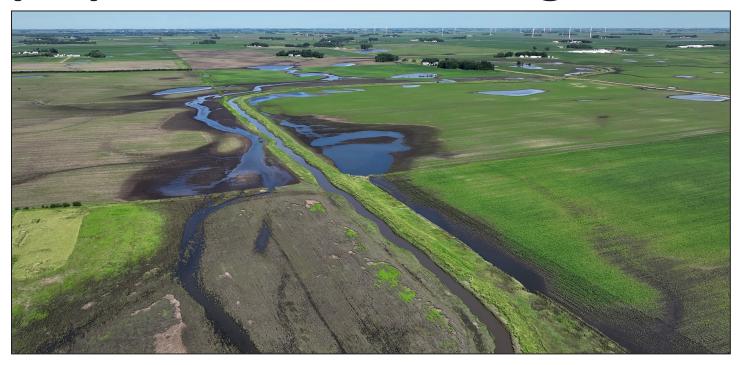
"These are relatively new practices being offered to producers through state funding," said BWSR Board Conservationist Luke Olson, whose work area includes Renville County. "These management practices are different than the traditional, more structured conservation projects. Developing that peer-to-peer contact through soil health staffing will make a big difference."

Hatlewick said that assisting farmers in implementing these emerging practices requires trust and open communication.

"Everything we do is relationship-based, but I think these nonstructural practices are even more so. We're asking producers to change their business model. It's more than just signing a contract. So much of this work is based on trust and relationships."



Modeling and design grants prepare for water storage work



FUNDING SOURCE: In 2023 the Minnesota Legislature appropriated \$17 million in general fund dollars for the Water Quality and Storage Program. About \$3 million was available this year; \$500.000 of that was available for modeling and conceptual design.

or the first time, this year the Minnesota Board of Water and Soil Resources (BWSR) made Water Quality and Storage Program grants available for modeling and conceptual design.

Nine local governments applied. BWSR awarded five grants totaling \$213,250. Individual awards ranged from \$12,000 to \$82,250.

"What (our partners) need are models that will help them develop a feasibility study or a conceptual design on a very specific project," said BWSR Chief





Weaver

Engineer Rita Weaver. "That was the missing piece that we wanted to fill."

Other funding sources that could be used for modeling, such as Watershed-Based Implementation

Funding, are typically dedicated to watershed plan-driven projects. The Water Quality and Storage modeling and conceptual design grants can focus on projects that might not rank as highly in the watershed-wide



Clockwise from top:

An aerial view of Judicial Ditch 13 in Jackson County after summer flooding shows where water naturally ponds, and where water storage sites are being considered. Photo Credit: ISG Inc. Judicial Ditch 4 runs through Brewster in Nobles County. The town's storm sewer is linked to the flood-prone ditch.

Photo Credit: Loretta Halbur, Nobles County Beaver Creek flows through Renville County to the Minnesota River. Photo Credit:

Pamela Winzenburg, Renville County SWCD plan, but involve willing landowners and projects that are valuable in terms of improving water quality and mitigating the effects of flooding.

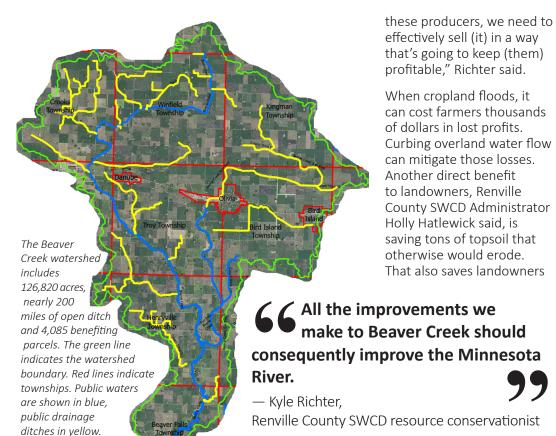
"The bigger picture with the whole program is really to add more storage to our landscape. Storage that's essentially been lost after years and years (of modifying) our landscape — we want to add some of that storage back. We're never going to be able to replicate the way it was, but any time that we can retain water on the landscape to reduce peak flows, to promote infiltration, that's going to be beneficial," Weaver said.

Site-specific modeling and conceptual design will position local governments to apply for implementation dollars. Up to \$500,000 of the \$3 million in Water Quality and Storage Grant Program funding this year was available for modeling and conceptual design for water storage projects. Previously, those grant dollars could only be used for implementation.

The Minnesota Legislature in 2021 passed a law directing BWSR to develop a program to protect infrastructure, improve water quality and mitigate the effects of climate change. The result: the Water Quality and Storage Grant Program, which started as a pilot. In 2023 the Legislature appropriated \$17 million for the program from the general fund; about \$12 million remains.

Following are a few examples of how the modeling and conceptual design grants will be used.

The Renville County Soil



Modeling & design grant recipients

BWSR this spring awarded the following grants Water Quality and Storage Program grants for modeling and conceptual design. Grants required a 10% match.

Map Courtesy

of Renville County SWCD

RENVILLE COUNTY SWCD: \$82,250, centered on the Beaver Creek watershed

APPLE VALLEY: \$60,000, centered on Duchess, Greening and Pennock parks within the

and Water Conservation District (SWCD) will focus on obtaining conceptual designs for two sites, and a list of 100-plus potential water storage locations within the 126,820-acre Beaver Creek watershed.

The watershed includes 4,085 benefiting parcels and nearly 200 miles of open ditch that drains corn, soybean and sugar beet fields. The creek flows directly into the Minnesota River.

Keller Lake watershed

JACKSON COUNTY: \$35,000, centered on the Judicial Ditch 13 watershed

NOBLES COUNTY: \$24,000, centered on the Judicial Ditch 4 watershed, including the city of Brewster

LYON SWCD: \$12,000, centered on the County Ditch 12 subwatershed

The Minnesota and Lower Mississippi river basins are a focus of the program.

"All the improvements we make to Beaver Creek should consequently improve the Minnesota River," said Kyle Richter, Renville County SWCD resource conservationist.

"When we're selling conservation, we have it in the back of our minds that it's for water quality. But in order to effectively sell it to the cost of cleaning out the ditch. Flood mitigation is a collaboration among landowners, the SWCD and county ditch authority.

"Once we can show them numbers and data, it's not just anecdotal," Hatlewick said. "They're more impressed by seeing the landscape and seeing the change in water movement and reducing erosion."

Jackson County will focus on Judicial Ditch 13, a 100-year-old ditch system that drains about 15,300 acres in Jackson and Nobles counties. Jackson County Drainage Coordinator Kelly Rasche said the second phase of ditch improvements is underway. The grant will focus on eight sites and develop modeling for up to five sites based on water-quality benefits.

"With this money we're able to get that information on paper so it's ready to go







Richter

Rasche

Halbur

so when we do (receive) additional petitions (from landowners for ditch improvements) we can move forward," Rasche said.

Benefiting landowners initiate major ditch repairs and improvements. A petition starts that process. The grant makes it possible to plan before a petition is submitted.

"There's a benefit to storage for everyone. It's just identifying them and communicating those benefits to landowners. Getting their buy-in is important, and this will be a tool that will absolutely help us get that buy-in," Rasche said. "The modeling will show them how quickly the water will drain."

The benefits extend beyond Judicial Ditch 13, which flows to Skunk Creek, the West Fork Little Sioux River and the Missouri River.

"Water storage in Southwest Minnesota potentially There's a benefit to storage for everyone. ... Getting (landowners) buy-in is important, and this will be a tool that will absolutely help us get that buy-in.

Kelly Rasche,
 Jackson County drainage coordinator

benefits landowners where the Missouri and the Mississippi meet," Rasche said. "This money helps us study those locations to put storage to make water quality better for everyone in the state of Minnesota."

In Nobles County, grantfunded modeling and design work will focus on Judicial Ditch 4, which runs through the town of Brewster. The city's storm sewer is linked to the ditch.

"The city of Brewster will flood even in a dry year," said Nobles County Drainage Coordinator Loretta Halbur.

Tree roots and sediment plug the concrete drainage tile. Streets flood.

Basements flood. In a town of 495 people where the per-capita annual income is about \$32,000, she said the grant will take the edge off of the cost of determining the best solution.

"Having access to these grants is so important when we're talking about repairing and potentially improving county drainage systems, especially as so many of these county drainage systems are aging out," Halbur said.

The grant-funded work will model up to five potential water storage sites and produce conceptual designs for three. Located within the Lower Mississippi River basin, the ditch flows to a private ditch, and then Okabena Creek, Heron Lake and the Des Moines River.

Feedback from the pilot program drove the decision to offer modeling and conceptual design grants.

"In addition to project readiness, we are hoping applicants will use these funds to develop feasibility studies so they can apply for final design and construction funds the next time the program is open for applications," Weaver said.

The next application period is expected to open late this year or early next year.



The Infoworks ICM model is used to evaluate the inundation time of a proposed storage area along a ditch system in Faribault County. This is compared against existing conditions and shown to producers to illustrate how flood levels could change if they decided to add storage to their property. Image Courtesy of ISG Inc.



BWSR grant supports pollinator habitat in Brooklyn Center community







Pollinators visited native plants in August during a community event at Brooklyn Center Elementary School. Photo Credits: Erin Loeffler, BWSR

Lawns to Legumes
Demonstration Neighborhood
grant awarded to the
Trust for Public Land (TPL) by the
Minnesota Board of Water and Soil
Resources (BWSR) in June 2022 has
helped install 39 pollinator plantings
in and around schools and other
properties in Brooklyn Center,
creating more than 2,300 square
yards of new pollinator habitat.

Demonstration Neighborhood grants* are intended to enhance pollinator habitat in key corridors, raise awareness about residential pollinator protection and showcase best practices through community projects. TPL allocated its \$40,000 grant to support the 39 pollinator habitat projects at two Brooklyn Center schools, on privately owned land and on city property. The grant supported the installation of one bee lawn, six pocket plantings and 32 rain gardens.

TPL is a national nonprofit that connects people to the benefits of the outdoors. For more than two decades, TPL has partnered with schools across the country to redesign schoolyards as quality outdoor spaces to address health, equity and climate issues through its

Community Schoolyards program. Projects are designed through a community-led participatory design process. The goal is to create a place where students can learn, connect and recreate during the school day, where community members can visit during non-school hours.

"Our Community Schoolyard program helps to close the 10-minute walk gap in communities where they lack park access within a 10-minute walk of their home," said Anna Callahan, Minnesota-based TPL community powered parks and schoolyards senior program manager.

Brooklyn Center Elementary School was selected as the pilot site for the Minnesota Community Schoolyards program — the Minnesota-based program under TPL's Community Schoolyard program. Brooklyn Center has a population of nearly 34,000, and according to the Metropolitan Council, is the most diverse city in the state, with 65% of its population being non-white.

In fall 2021, TPL and Brooklyn Center Elementary School, in collaboration with the city of *BWSR recently renamed the Demonstration Neighborhood grants to Pollinator **Pathway** grants. The grant was still referred to as a Demonstration Neighborhood grant when it was initially awarded to the **Trust for Public** Land in 2022.

Brooklyn Center, Hennepin County Master Gardeners, Three Rivers Park District, Hennepin County, students, parents and neighbors, launched an effort to revamp the school's outdoor learning space as a healthy community schoolyard.

Project partners saw an opportunity to use Demonstration Neighborhood grant dollars to augment the existing Minnesota Community Schoolyard project by funding the installation of a pollinator pocket planting at Brooklyn Center Elementary School. In April, two second-grade classes helped Three Rivers Park District staff to seed and install plants as part of an annual pollinator curriculum. Almost 3,000 square feet of pollinator habitat was installed.

"We were able to leverage the funding that we received from BWSR to bring additional resources to the project," Callahan said, adding that the Demonstration Neighborhood funds allowed TPL to achieve its broader goal of transforming the site into a community hub with quality green spaces for everyone to enjoy.

BWSR awarded \$1.1 million for Pollinator Pathways grants, formerly known as Demonstration Neighborhood grants, to 10 organizations in August. Tribal governments, soil and water conservation districts, watershed districts, counties, municipalities, non-government organizations and pre-K through 12th grade schools (public and non-profit) were eligible to apply for the most recent round of funding. Learn more about 2024 grant recipients.

Elsewhere in the school district, TPL used the grant funds to install a pocket planting at Brooklyn Center Middle & High School. In April, nearly 3,000 square feet of pollinator habitat was installed adjacent to the school garden.

Garden interns students under the school district's Growing Brooklyn Center program designed the space with Three Rivers Park District staff and Hennepin County Master Gardeners. Eighth-grade science students worked with park staff to plant seeds. Three Rivers Park District donated and helped to plant close to a dozen chokecherry shrubs. Students and future garden interns will use and maintain the garden.

The Demonstration
Neighborhood grant
also supported five
residential projects —
a bee lawn, pollinator
pocket plantings and
rain gardens — installed
through TPL's Lawns to
Legumes pollinator cost-

share program. Applicants were reimbursed up to \$750 for eligible expenses associated with their project and were required to provide a 10% match. Landowner match — in the form of in-kind time spent on coordination and installation of the project — was approximately \$2,700 in total, according to Callahan.

TPL selected projects located near the schools to maximize pollinator habitat corridors. Hennepin County Master Gardeners mentored participants in TPL's cost-share program through the garden design process, which started with a workshop that was open to the public.

"Participants had a working session with their Hennepin County Master Gardener to talk about their site. They brought in photos of the site, so they could talk about sun and shade access on the site and what they wanted to achieve," Callahan said. "Hennepin County Master Gardeners also did site visits with the program

participants and worked with them to develop a planting plan."

After residents installed their pollinator projects, TPL hosted a workshop where participants shared what they learned.

As part of the project, TPL partnered with the city of Brooklyn Center to use the Demonstration Neighborhood grant funds to install 32 rain gardens totaling 14,666 square feet on city property. The city contributed an additional \$950 for that project.

Rain gardens can help to improve water quality by collecting and filtering runoff from impervious surfaces, which reduces how much sediment and nutrients enter lakes, rivers and streams. Plants' deep roots curb erosion, holding soil in place while feeding pollinators such as birds and butterflies.

"Program participants had a really positive experience across all of the different sites," Callahan said. "It was great to be able to advance the work at our schoolyard project, while also connecting the schoolyard into a broader community-building opportunity."



Tour spotlights stormwater work, post-flood habitat restoration



The St. Louis Estuary is the largest freshwater estuary in North America and is the headwaters of the Great Lakes. Over the past 150 years, commercial uses in the estuary disrupted and altered natural habitats as shorelines and near-shore areas were dredged and developed, and chemicals contaminated the water. Restoration efforts in the estuary center on onceplentiful wild rice and critical spawning habitat for fish. Photo Credits: Ashley Rezachek, BWSR



Clean Water
Funds supported
some of the
conservation
projects featured
during the
annual BWSR
Board tour in
Duluth.

uring a four-stop tour of projects throughout Duluth, Minnesota Board of Water and Soil Resources (BWSR) and South St. Louis Soil and Water Conservation District (SWCD) staff members highlighted conservation and water-quality outcomes.

The annual BWSR Board tour drew almost 50 people including BWSR staff and BWSR Board members. Partners who delivered presentations represented the city of Duluth, Minnesota Department of Natural Resources (DNR), Minnesota Pollution Control Agency, Fond du Lac Band of Lake Superior Chippewa and the 1854 Treaty Authority.



Each August, BWSR Board members and staff tour conservation sites with ties to BWSR's work to see project outcomes and accomplishments. Destinations rotate each year and are held in all regions of Minnesota.

Featured sites all drain to Lake Superior. Highlighted work included stormwater improvements, habitat enhancements, shoreline restorations and erosion control. "Duluth has 42 named streams and 10,000 acres of public land; both estuary and, of course, the greatest of the Great Lakes, Lake Superior," Duluth Mayor Roger Reinert said in a welcome message.







Left and middle: Tour participants viewed Miller Creek, a designated trout stream in Duluth, which flows from the Miller Hill Mall area through Lincoln Park to Lake Superior. Stormwater treatment improvements installed in 2023 included a rain garden, a native species pollinator planting and bioswales. These improvements help filter, cool and slow stormwater runoff before it reaches the stream. **Right:** City of Duluth Construction Project Coordinator Ron Hurd answered questions about the Lincoln Park project.

"Land stewardship in the city of Duluth is a monumental task."

Duluth faces challenges such as aging infrastructure, stormwater runoff and erosion. The city and other conservation partners continue to address issues related to the 2012 flood.

In June 2012, a 7.25-inch, two-day rainfall caused serious damage in Duluth. Streambanks eroded, threatening private and public infrastructure and degrading the riparian and in-stream habitat and biota. Flooding significantly damaged many of Duluth's 16 cold-water trout streams. Substantial flooding was reported in many areas around Duluth, leading to several road closures, including Highway 61 and Interstate Highway 35.

The event triggered a Presidential Major Disaster Declaration on July 6, 2012. On Aug. 24, 2012, Gov. Mark Dayton signed a \$167 million disaster relief bill to help Duluth and nearby impacted areas.

Many tour stops included sites where the 2012 flooding negatively impacted the area and its

natural resources.

The first stop showcased stormwater improvements at Lincoln Park. Miller Creek, a designated trout stream with a temperature impairment, flows through heavily developed areas of Duluth and passes through the 45-acre Lincoln Park on its way to Lake Superior. Untreated stormwater carries sediment and pollutants and increases water temperatures, which impacts cold-water species such as trout.

The \$4.2 million park revitalization project completed last year included BWSR-backed stormwater treatment improvements. These improvements included a rain garden, a native species pollinator planting, three bioswales, three tree trenches and three biofiltration basins.

The next stop highlighted shoreline and habitat restoration work in the Chambers Grove Park area and the St. Louis River Estuary. The estuary marks the confluence of the St. Louis River and Lake Superior and is the headwaters of the Great Lakes. Chambers Grove Park borders a section of the St. Louis River

near Duluth's Fond du Lac neighborhood. This area serves as a critical spawning area for Lake Superior's migratory fish species, including sturgeon, walleye and longnose sucker.

The city park was built next to the river in the 1960s. At that time, the shoreline was stabilized with a wall of steel sheet piling and a wooden boardwalk. This stabilizing technique eliminated the shallow, slow-moving water needed for fishrearing and did not accommodate spawning habitat for lake sturgeon.

Commercial use of the estuary altered the natural habitat. Where once an estimated 3,000 acres of wild rice grew, now only a few pockets remain.

The 2012 flood damaged the park's walkway and fishing pier. When the city of Duluth began planning for repairs, St. Louis River Area of Concern (AOC) partners recognized it as an opportunity to incorporate habitat restoration into park improvements. The U.S.-Canada Great Lakes Water Quality Agreement defines an AOC as a geographic area where human activities have

significantly damaged the environment.

The Chambers Grove aquatic restoration project was completed in 2015, with 1,000 feet of restored shoreline habitat stabilized with toe wood and three in-water water control/spawning structures.

Tom Howes, natural resources program manager for the Fond du Lac Band of Lake Superior Chippewa, shared the history of the Fond du Lac Band, treaties, wild rice (called "manoomin" in Ojibwe) and some of the restoration efforts the Band has coordinated with state agencies.

"The way I was taught growing up is that we also have a responsibility. I wouldn't be here today if it wasn't for all the fish that are in this river and the trees that are around here, and the wild rice that's in this estuary. Those things are all really central to our culture, and so that's why our ancestors stipulated for that in our treaties," Howes said.

The Fond du Lac Band of Lake Superior Chippewa has a vested interest in the environmental protection of the area and resource projects, including wild rice restoration work.

The Chambers Grove aquatic restoration work also included reseeding wild rice and managing seven sites within the estuary covering more than 200 acres. In partnership with the Fond du Lac Band of Lake Superior Chippewa, 1854 Treaty Authority, Minnesota DNR and Wisconsin DNR, seeding is in progress and is set to be completed by 2026. This work includes managing the sites by reducing competition from other vegetation and guarding sensitive wild rice beds from grazing waterfowl. These efforts are a part of a larger AOC delisting effort.

Duluth-area DNR biologist John Lindgren discussed project partnerships, sturgeon restoration, streambank stabilization work and restoration projects upstream and downstream of the Chambers Grove Park area.

South St. Louis SWCD Manager R.C. Boheim discussed soil nailing, a slope stabilizing technique that uses steel "nails" anchored deeply into a slope and grouted in place. This helps support a wire mesh that is covered with a shotcrete (sprayable concrete or mortar) material.

After the 2012 flood, two homes located above Chester Creek were in danger of collapsing after their backyards eroded. The steepness of the slope and its proximity to the homes made the project



South St. Louis SWCD conservation specialist Tim Beaster discussed the restoration of Chester Creek, a trout stream that flows through Chester Park in Duluth. The project addressed the ecological impact of two dams installed in the 1930s. The restoration incorporated natural channel design principles with support from state funding, including a Minnesota Flood Relief Grant and Minnesota DNR grant funding.



a priority for the South St. Louis SWCD. The SWCD applied soil nailing to stabilize the slope's upper edge. At Chester Park, the group learned about the Chester Creek restoration project. Chester Creek was one of the many cold-water trout streams damaged during the 2012 flood. The popular stream flows through Duluth's Chester Park, which offers hiking, mountain biking and skiing. Originally two dams were located in the park, one of which was washed out and damaged during the 2012 flood. The flood also filled the park's pond with sediment.

In 2016, the city of Duluth completed restoration work in Chester Park designed to protect infrastructure. The project used toe wood to create a floodplain bench from natural materials including tree trunks, root wads, brush and soil. The bench is designed to reduce streambank erosion, create fish habitat and provide native vegetation along the river corridor.

In 2017, the South St. Louis SWCD and its partners removed the two dams, and realigned and stabilized the stream, providing trout habitat and increased resiliency for future flooding events.

"The philosophy that we've adopted in our office to restore these systems is a form of biomimicry," said South St. Louis SWCD conservation specialist Tim Beaster. "We basically just try to mimic nature in our approach to these restoration projects."

The restoration team used a reach of the East Split Rock River for reference. A reference reach is an undisturbed, healthy stream used as a model to guide project design and implementation. The team measured and documented characteristics of the

reference reach to replicate those natural conditions.

"The benefit of trying to emulate nature is that you're taking all those processes that maintain that ecosystem into account, and you're really addressing the five components of watershed health," Beaster said. "Those five components are hydrology, geomorphology, biology, water quality and connectivity. All those five components need to be working together to protect and restore these ecosystems."

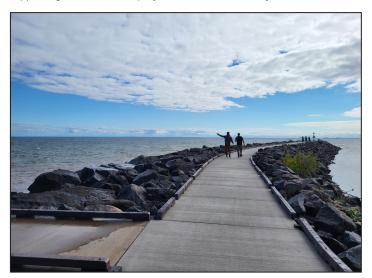
The tour concluded with a visit to McQuade Safe Harbor, which overlooks Lake Superior. Here, Amber Westerbur, program manager of Minnesota's Lake Superior Coastal Program, discussed its goals and outcomes. The program's purpose is to preserve, protect, develop, and, where possible, restore or enhance coastal resources along Minnesota's North Shore of Lake Superior. The program works closely with partners including the city of Duluth and the five SWCDs within the coastal area.

"Minnesota's coastal program is dedicated to empowering and supporting the leaders and professionals that work every day to manage the phenomenal resources that we have along Lake Superior," Westerbur said.

This voluntary, federalstate partnership provides technical and financial



South St. Louis SWCD Manager R.C. Boheim (center back) answered questions near the Lake Superior shoreline. Later, tour attendees walked down a boardwalk overlooking Lake Superior. Minnesota's Lake Superior Coastal Program has provided more than \$15 million in grant funding, supporting more than 700 projects across 189 miles of shoreline.



resources. The coastal area covers parts of Carlton, Cook, Lake and St. Louis counties, the Fond du Lac and Grand Portage reservations, and the Minnesota waters of Lake Superior. Local government units, nonprofit organizations, colleges and universities and other non-governmental organizations can apply for program grants.

Minnesota's Lake Superior

Coastal Program is funded and supported by the National Oceanic and Atmospheric Administration (NOAA). The DNR is the lead agency for the state's coastal program and is responsible for applying for and administering an annual cooperative agreement with NOAA to support program implementation. Minnesota receives an annual allocation of about \$1 million in federal

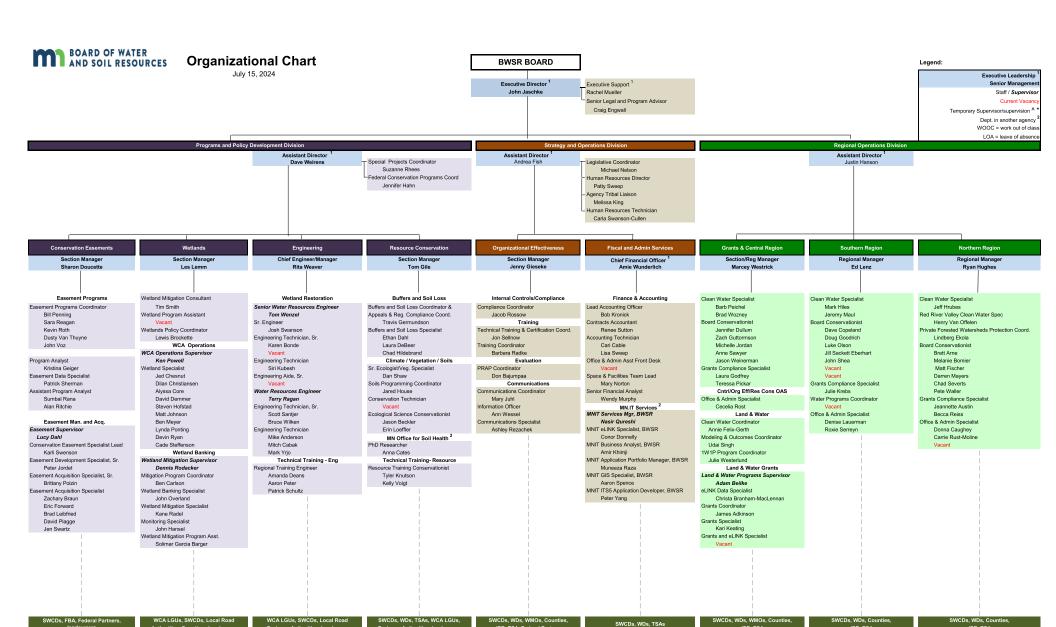
funding from NOAA, most of which goes out in the form of grants.

Following the 2012 flood, the program served as a resource for state and local partners, particularly the SWCDs, as they evaluated damage and worked to repair damage. The program supported its partners in their efforts to address stormwater in multiple ways, including supporting stormwater planning in flood-prone communities, designing and installing green infrastructure, mapping and assessing the conditions of culverts, and helping communities work with landowners on shoreline management.

Since it began in 1999, the program has funded 700-plus projects through more than \$15 million in grants throughout 100-plus communities and organizations. Projects range from protecting water quality to reducing risks associated with flooding and erosion, to enhancing and building public access sites, and conserving forests, wetlands and streams.

Partnering and collaborating with local entities is crucial to the program's ability to leverage federal funding and implement projects.

"We would not be as successful as we are if it weren't for the partnerships and collaborations that really underpin all of our day-to-day work," Westerbur said.



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EMPLOYEE EXPENSE REPORT (Instructions)

DO NOT PAY RELOCATION EXPENSES ON THIS FORM.

See form FI-00568 Relocation Expense Report. Relocation expenses must be sent to Minnesota Management & Budget, Statewide Payroll Services, for payment.

USE OF FORM: Use the form for the following purposes:

- 1. To reimburse employees for authorized travel expenses.
- 2. To request and pay all travel advances.
- 3. To request reimbursement for small cash purchases paid for by employees.

COMPLETION OF THE FORM: Employee: Complete, in ink, all parts of this form. If claiming reimbursement, enter actual amounts you paid, not to exceed the limits set in your bargaining agreement or compensation plan. If you do not know these limits, contact your agency's business expense contact. Employees must submit an expense report within 60 days of incurring any expense(s) or the reimbursement comes taxable.

All of the data you provide on this form is public information, except for your home address. You are not legally required to provide your home address, but the state of Minnesota cannot process certain mileage payments without it.

	Ea	rn Code		Earn Code				
Description	In State	Out of State	Description	In State	Out of State			
Advance	ADI	ADO	Membership		MEM			
Airfare	ARI	ARO	MIT*	MOT*				
Baggage Handling	BGI	BGO	Mileage < or = IRS Rate	MLI MLO				
Car Rental	CRI	CRO	Network Services		NWK			
Clothing Allowance		CLA	Other Expenses	OEI	OEO			
Clothing-Non Contract		CLN	Parking	PKI	PKO			
Communications - Other		COM	Photocopies	CPI	CPO			
Conference/Registration Fee	CFI	CFO	Postal, Mail & Shipping Svcs.(outbound)	PMS				
Department Head Expense		DHE	Storage of State Property		STO			
Fax	FXI	FXO	Supplies/Materials/Parts		SMP			
Freight & Delivery (inbound)		FDS	Telephone, Business Use	BPI	BPO			
Hosting		HST	Telephone, Personal Use	PHI	PHO			
Laundry	LDI	LDO	Training/Tuition Fee	·	TRG			
Lodging	LGI	LGO	Taxi/Airport Shuttle	TXI	TXO			
Meals With Lodging	MWI	MWO	Vest Reimbursement		VST			
Meals Without Lodging	MEI*	MEO*	Note: * = taxable, taxed at supp	plemental rates				

Supervisor: Approve the correctness and necessity of this request in compliance with existing bargaining agreements or compensation plans and all other applicable rules and policies. Forward to the agency business expense contact person, who will then process the payments. Note: The expense report form must include original signatures.

Final Expense For This Trip?: Check this box if there will be no further expenses submitted for this trip. By doing this, any outstanding advance balance associated with this trip will be deducted from the next paycheck that is issued.

1-Way Commute Miles: Enter the number of miles from your home to your permanent workstation.

Expense Group ID: Entered by accounting or payroll office at the time of entering expenses. The Expense Group ID is a unique number that is system-assigned. It will be used to reference any advance payment or expense reimbursement associated with this trip.

Earn Code: Select an Earn Code from the list that describes the expenses for which you are requesting reimbursement. Be sure to select the code that correctly reflects whether the trip is in state or out-of-state. **Note**: Some expense reimbursements may be taxable.

Travel Advances, Short-Term and Recurring: An employee can only have one outstanding advance at a time. An advance must be settled before another advance can be issued.

Travel Advance Settlement: When the total expenses submitted are less than the advance amount or if the trip is cancelled, the employee will owe money to the state. Except for rare situations, personal checks will not be accepted for settlement of advances; a deduction will be taken from the employee's paycheck.

FMS ChartStrings: Funding source(s) for advance or expense(s)

Mileage: Use the Mileage Reimbursement Calculation table to figure your mileage reimbursement. Mileage may be authorized for reimbursement to the employee at one of three rates (referred to as the equal to, less than, or greater than rate). The rates are specified in the applicable bargaining agreement/compensation plan. Note: If the mileage rate you are using is above the IRS rate at the time of travel (this is not common), part of the mileage reimbursement will be taxed.

Vehicle Control #: If your agency assigns vehicle control numbers follow your agency's internal policy and procedure. Contact your agency's business expense contact for more information on the vehicle control number procedure.

Personal Travel Benefits: State employees and other officials cannot accept personal benefits resulting from travel on state business as their own. These benefits include frequent flyer miles/points and other benefits (i.e. discounts issued by lodging facilities.) Employees must certify that they have not accepted personal travel benefits when they apply for travel reimbursement.

Receipts: Attach itemized receipts for all expenses except meals, taxi services, baggage handling, and parking meters, to this reimbursement claim. The Agency Designee may, at its option, require attachment of meal receipts as well. Credit card receipts, bank drafts, or cancelled checks are not allowable receipts.

Copies and Distribution: Submit the original document for payment and retain a copy for your employee records.

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