

WinLaC
Partnership
—1W1P—

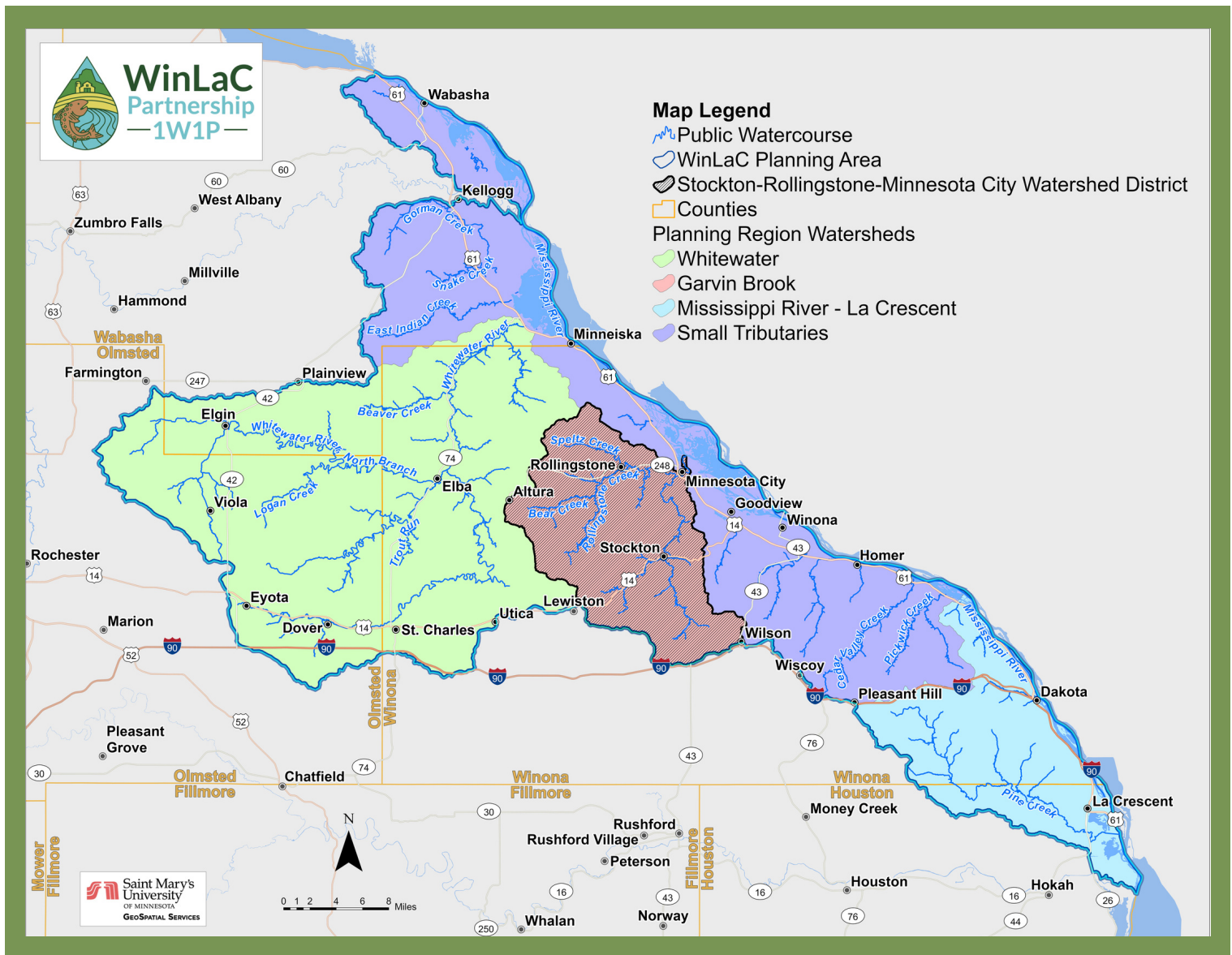
2024



**PROJECTS AND
ACCOMPLISHMENTS**



WinLaC Partnership 1W1P 2024 Overview



Throughout 2024, the counties of Houston, Olmsted, Wabasha, and Winona, along with their Soil and Water Conservation Districts (SWCDs), the Stockton-Rollingstone-Minnesota City Watershed District, and the City of Winona, continued work on the WinLaC (Mississippi River-Winona and La Crescent) comprehensive watershed management plan to protect and restore

water resources. The mission of the partnership is to provide citizens of the watershed with clean water, balanced ecosystems, sustainable farmland, and diverse healthy communities. This report highlights some of the Partnership's 2024 projects, announcements, and accomplishments as the group collaborates to meet their water quality goals.

Altura well sealing saves drinking water from contaminants

The long-abandoned municipal Altura Well was sealed thanks to Clean Water Funds, preventing contamination of drinking water.

Well sealing in Southeast Minnesota is extremely important; highly porous karst soil allows water and its contaminants to travel easily between aquifers. Abandoned wells also pose a risk to drinking water.

The 700-foot-deep Altura Well was originally constructed with connections to multiple aquifers. Although the well had been out of use for decades, water was traveling down through the well, allowing for cross-contamination between aquifers.

During the sealing, the Winona County SWCD produced an educational video detailing the importance of well sealing and further background on the Altura well. Find the video at www.winonaswcd.org under “Well Decommissioning.”



Contractor preparing to seal the Altura Well. Photo by Sheila Harmes.

Agricultural steps, woodland stewardship, and education in Winona County

A **Grade Stabilization Structure** is a conservation practice that is used to address gully erosion; it is a method to **“Slow the flow”** of runoff from steep slopes and fields. A grade stabilization structure has a constructed berm that collects rainwater runoff into a basin. The basin temporarily holds the water during rainstorms, and allows a slow, controlled release of water through an outlet pipe. This results in reduced amounts of sediment and nutrients entering nearby streams.

In SE Minnesota, recent changes in weather patterns and more intense rainfalls during warmer months cause increased erosion problems. Winona County SWCD addressed gully erosion through various projects in 2024. Three grade stabilization projects were completed, and two additional projects are being planned. The reductions in sediment and nutrient output of the three completed stabilization structures combined are listed below:



*Images during and after the installation of a grade stabilization structure in Whitewater.
Photo by Winona County SWCD.*

55.9 CROPLAND DRAINAGE ACRES TREATED

2,493

**LB/YR
NITROGEN**

94

**LB/YR
PHOSPHORUS**

13,112

**LB/YR
SEDIMENT**

PREVENTED FROM ENTERING OUR WATER

One of the projects was a request by a landowner who had gully erosion creeping into his field. The field is prone to erosion due to its position atop a ridge combined with the area's geological and soil makeup.

The landowner had three goals: mitigate gully erosion, create an area of pooling water for livestock and wildlife, and incorporate a grazing space behind the structure for his animals.

Thanks to funding from the Natural Resources Conservation Service and the Winona County SWCD, the grade stabilization was a success. As pictured here, each of the landowner's goals for the property were met, and the project resulted in significant pollution reductions.



Grade stabilization with grazing pasture and pooling water. Photo by Jim McKay.



Conservation Field Day. Photo by Winona County SWCD.

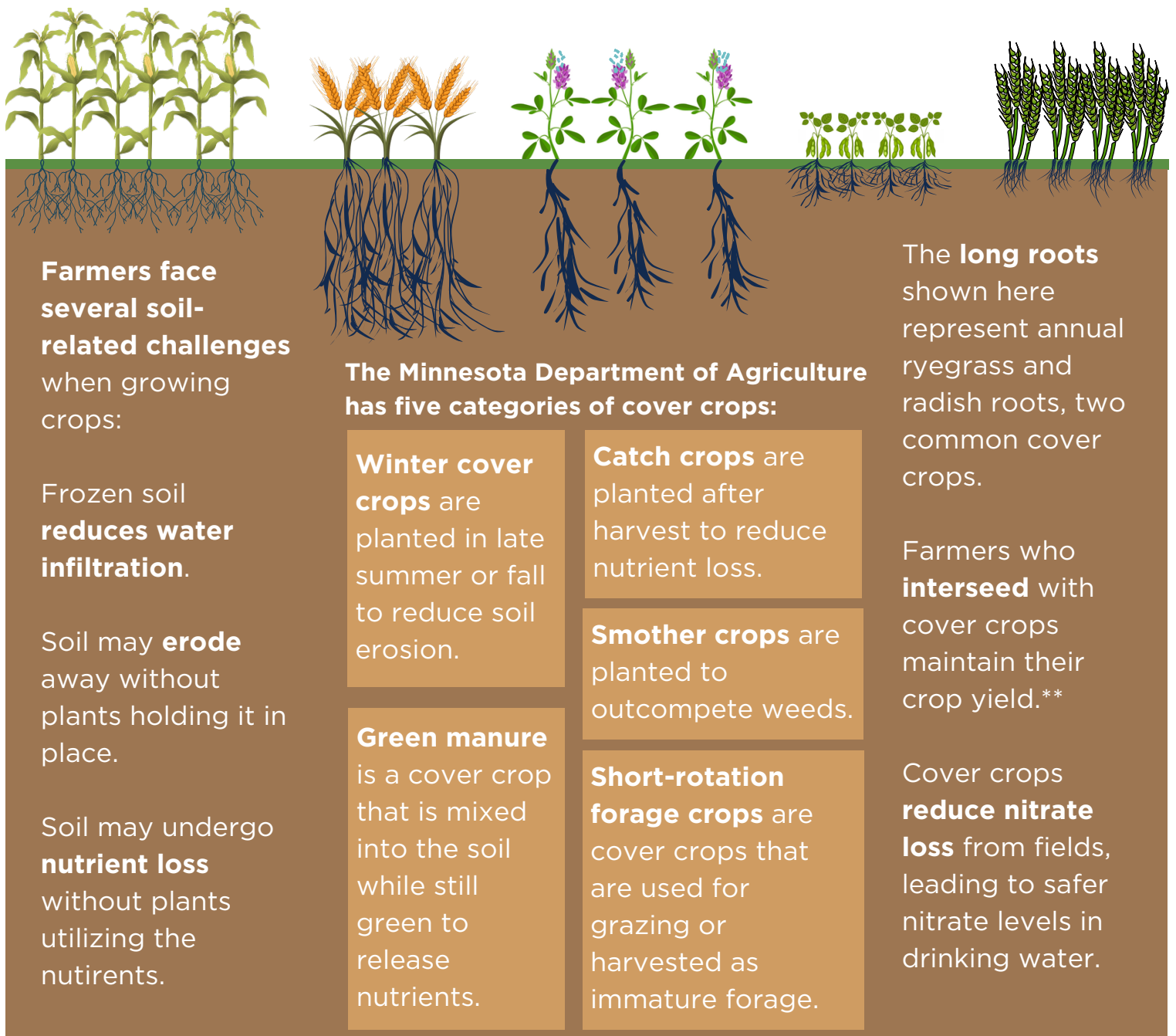
In August, WinLaC, its SWCDs, Whitewater Watershed JPB, and the NRCS hosted a Conservation Field Day. They educated over 100 attendees on soil health, cover crops, native prairies, nutrient management, and vertical tillage.

Furthermore, woodland stewardship plans were created to enhance landowners' knowledge of their forests, guide them in improving their land, and help them determine the optimal timing for necessary work. The plans are specific to the land and to the owner's forestry goals.

Other agricultural practices included cover crop planting, conservation cover, and brush management. From 2023 to 2024, there were 18 more cover crop contracts established, 1,426 more acres covered, and a \$25,000 increase in WinLaC funds.

The importance of cover crops in Southeast Minnesota

Cover crops are plants that provide cover to cropped soil following harvest season, when the soil would typically be bare. In Minnesota, cover crops are a key practice to protect soil during long winter months. In areas of karst geology, pollutants travel easily away from their source and can affect the environment and safety of recreation. Cover crops provide many benefits, such as reducing erosion, preventing nutrient loss, increasing soil infiltration, and providing forage for livestock.*



*The Agricultural BMP Handbook for Minnesota, 2012. **Considerations for 2017 Cover Crop Interseeding by the University of Wisconsin-Madison, 2017.



In Wabasha County, numerous cover crop projects were completed. Of those projects, seven were located within the WinLaC. The estimated pollution reductions of all of the projects combined are listed below.

382.7 ACRES TREATED		
12,860	488	950,000
LB/YR NITROGEN	LB/YR PHOSPHORUS	LB/YR SEDIMENT
PREVENTED FROM ENTERING OUR WATER		



Successful cover crop plantings in Wabasha County. Photos by Jenna Rasmusson.

Olmsted County SWCD's Groundwater Protection Program has seen great success in lowering nitrate levels in watersheds. Thanks to funds from the American Rescue Plan Act, farmers receive financial assistance and work with the SWCD to create a plan to meet cover crop requirements.



Norman Nielsen, a Pine Island farmer, measuring his cover crop during his third year of the Groundwater Protection program. Photo by Olmsted SWCD.

Multi-functional flora advance stormwater management in Houston County

Stormwater is water originating from precipitation. Stormwater runoff picks up pollutants that eventually enter waterways we use for drinking water and recreation.

The City of La Crescent has installed multiple rain gardens in areas that were previously open basins for stormwater detention. Because much of the stormwater from La Crescent's north end drains into John S. Harris Park, it became an ideal spot for a rain garden. It is now one of La Crosse Area Waters' Featured Properties.

The rain gardens have become an example for residents and businesses, and La Crescent hosted multiple educational events demonstrating how to start a rain garden.

To further improve runoff management, safety, and aesthetics, an enhanced street sweeping study is being conducted in the area thanks to WinLaC funds. It will maximize sweeping efficiency and pollutant reduction.

Additionally, several sites across La Crescent are being converted to native prairies to improve stormwater detention and provide habitat for native pollinators.



*John S. Harris Park rain garden in La Crescent.
Photos by La Crosse Area Waters (top) and Jason
Ludwigson (bottom).*

Preserving natural resources through landscape protection

Landowners are protecting their land and legacy for future generations with conservation easements.

The Bluffland RIM (Reinvest in Minnesota) program is new to Southeast Minnesota. This initiative was led by the Minnesota Forest Resource Council's Southeast Landscape Committee. It has taken time to reach the area. The program was developed through collaborative efforts of natural resource professionals with landowner input to design a program that fits their conservation goals and the landscape of SE Minnesota. The program was launched in 2024 through the work of a Local Forestry Team (LFT). The Minnesota DNR Division of Forestry provided funding for a coordinator position that launched the LFT. This program, along with private forest management, is being coordinated and delivered to landowners in partnership with state, federal, local, and non-governmental organizations and consulting foresters.

Almost 90% of woodlands in SE Minnesota are privately owned. Assisting landowners with their woodland stewardship is key to creating healthy forests, healthy waters, and healthy communities. The Bluffland RIM program is designed to protect critical areas, retire marginal ag lands, and restore sites. By doing this, we will reduce run-off, increase infiltration, store carbon, and support upland and in-stream habitat. Landowners enrolling their land into Bluffland RIM are leaving their conservation legacy for future generations.



SE Woodlands. Photo by Larry Gates.

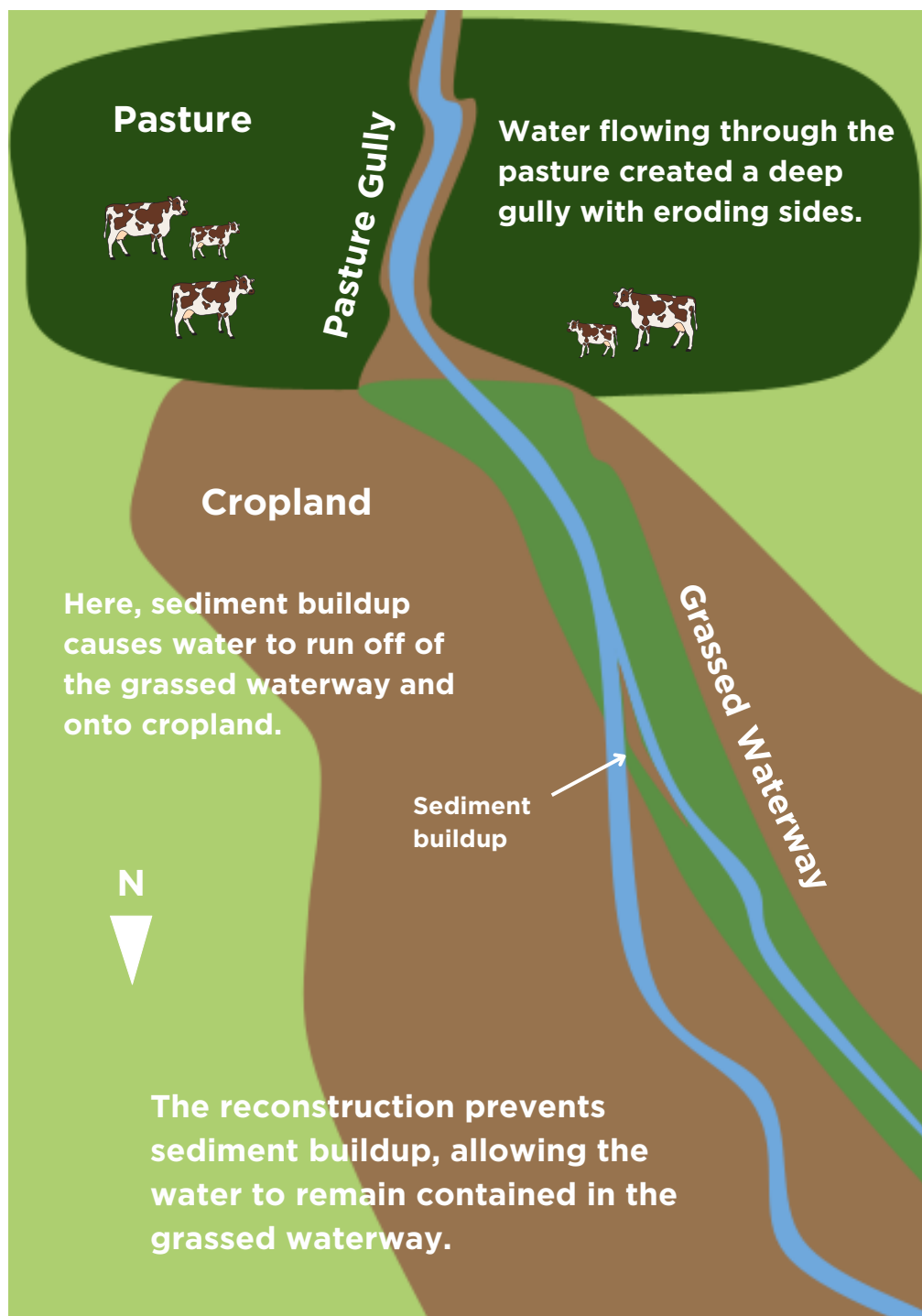
In 1986, the Reinvest in Minnesota Resources Act was enacted to restore certain marginal and environmental sensitive agricultural land to protect soil and water quality and support fish and wildlife habitat. BWSR's **Reinvest in Minnesota (RIM) Reserve program** is a critical component of the state's efforts to improve water quality by reducing runoff, increasing infiltration, and improving wildlife habitat on private lands.

Neighbors collaborate for cleaner water in Olmsted County

Landowners in Olmsted County's Quincy Township partnered with their SWCD to repair a cropland grassed waterway and remove a pasture gully.

A **grassed waterway** is a practice that directs water to flow through grass rather than cropland. This slows water flow and reduces erosion.

One landowner in Quincy Township noticed his grassed waterway had a flaw. Water was running alongside the grassed area rather than through it, carving out a small gully (see diagram).



Just upstream, his neighbor's pasture had an active gully that was first formed following heavy rains in 2017. Over time it grew 200 feet long and four feet deep. Sediment eroded from the gully, compromising the effectiveness of the grassed waterway. Erosion, once started, only gets worse unless corrective measures are taken.

The landowners needed to act quickly. They contacted the Olmsted SWCD for assistance and jointly decided to remove the pasture gully and reconstruct the grassed waterway.

In the spring of 2024, contractors reshaped, added an erosion control blanket, and filled the pasture gully, then reconstructed the grassed waterway.

The completed project creates a safer habitat for grazing cattle and reduces sediment and nutrient runoff into Logan Branch of the Whitewater River.



Diverted water (circled in yellow) along the grassed waterway (left) and pasture gully (right) before reconstruction. Photos by Olmsted SWCD.



Filled pasture gully with erosion control (left) and reconstructed grassed waterway during seed establishment (right). Photos by Olmsted SWCD.

**FOR THE 125
TREATED ACRES
of watershed:**

68

**LBS OF
NITROGEN**

2

**LBS OF
PHOSPHORUS**

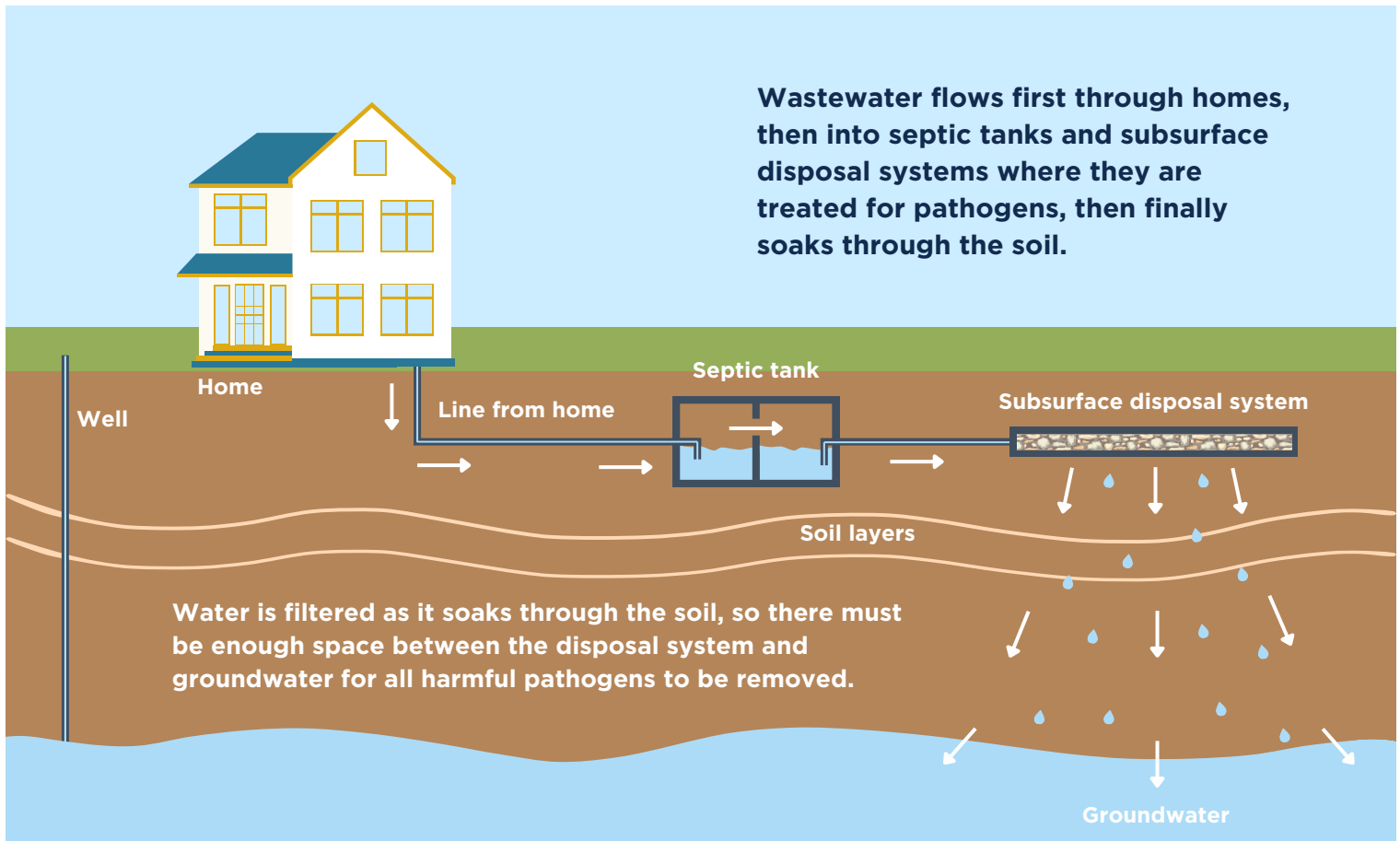
6,000

**LBS OF
SEDIMENT**

**are PREVENTED
from entering
the watershed
each year.**

Septic system safety

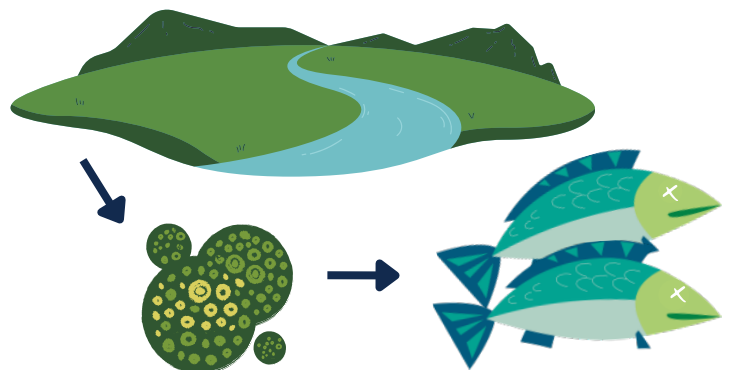
Improper treatment of a septic system can have rippling consequences on human health and the environment. Below is an explanation of a home sewage treatment system and what could happen if septic systems are not properly treated.



Untreated pathogens from wastewater can enter drinking water and cause illness.



Excess nutrients entering lakes and streams can increase algae growth, harming fish populations.



Winona County septic systems

Thanks to funding from the American Rescue Plan Act, a Whitewater Drinking Water grant, and other state funding, Winona County has succeeded in assisting households needing updated septic systems. Since July of 2023, they have fixed 16 septic systems. Their work has resulted in considerable reductions in pollutants entering waterways, as shown below.

BOD5
Biochemical
Oxygen Demand

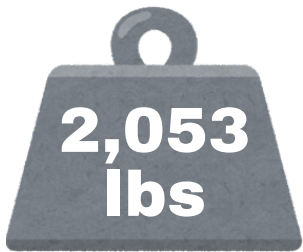
Measures the impact of wastewater effluents on receiving water.

TSS
Total Suspended
Sediment

Sediment in the water; can cause rising water temperatures and low oxygen.

CFU
Colony-Forming
Units

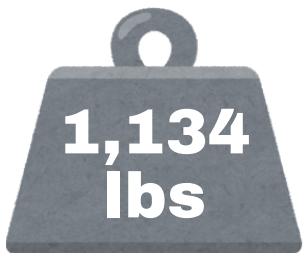
Measurement of bacteria to determine how many microbes are present.



**BOD5
PER
YEAR**

16

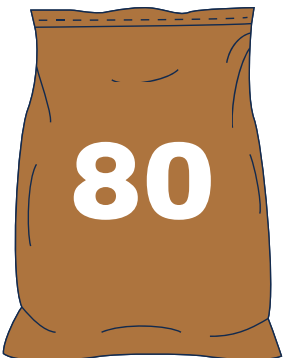
**HOUSEHOLDS
RECEIVED FINANCIAL HELP**



**TOTAL
SUSPENDED
SEDIMENT
PER YEAR**

**PREVENTED FROM
ENTERING OUR WATER**

**NITROGEN AND
PHOSPHORUS REDUCTIONS
EQUAL TO**

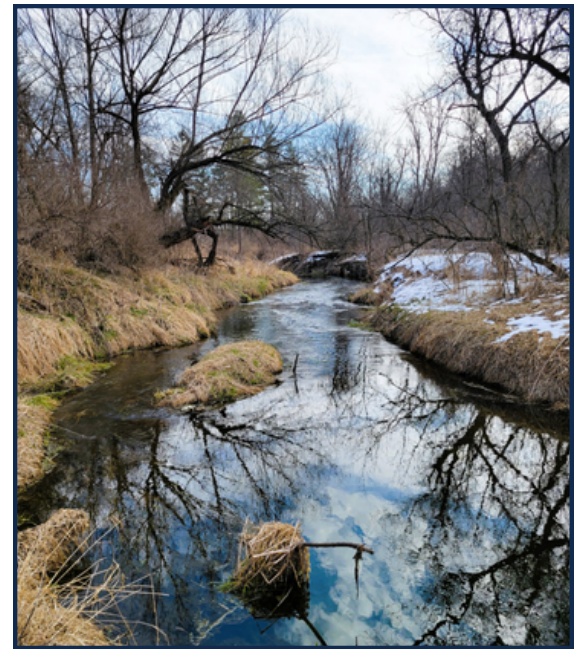


**BAGS OF
FERTILIZER
PER YEAR**

**530
TRILLION
CFU OF BACTERIA
PER YEAR
PREVENTED
FROM ENTERING
OUR WATER**

Beaver Creek removed from MCPA impaired waters list thanks to BWSR and Winona County SWCD

Duane and Karen Timm, who own a farm in Plainview, required costly upgrades to control runoff from their heifer feedlot. In 2020, BWSR provided Clean Water Funds to the Winona County SWCD to assist the Timms, making the project affordable. They built a manure stacking slab a mile upstream from Beaver Creek, which treats runoff using a vegetated infiltration strip. This provides the Timms with four months of manure storage, which they manage as a fertilizer when applied to their farm fields.



Beaver Creek. Photo by Winona County SWCD.

The cumulative efforts of numerous projects, including streambank restoration, feedlot improvements, manure management, and erosion control structures have led to the removal of the stream from the MPCA impaired waters list. This means pollutants are lower than the maximum allowable amount. These combined efforts have resulted in phosphorus and bacteria reductions, better-suited aquatic macroinvertebrates and fish.



Project progress during and after construction of the manure slab on the Timms' farm. Photos by Winona County SWCD.

What's next for the WinLaC Plan?



Ducks and swans in wetland fed by Pine Creek in La Crescent. Photo by Saskia Hatvany.

Pine Creek Restoration

Running west of and through La Crescent is Pine Creek, a popular trout fishing spot and an important habitat for other wildlife. In March of 2024, the City of La Crescent announced that they had received a \$500,000 grant from the Minnesota DNR to undertake a restoration project along a portion of the creek.

The portion they selected contains numerous box elder trees, which have soft wood that is easily damaged in high winds. This has caused log jams and

limited shade along the creek, leading to still water and higher water temperatures, a less favorable habitat for trout and other wildlife.

The completed restoration will improve habitat quality for wildlife in the creek and in connected waterways and allow for recreation in the area. The project includes log jam removal, native seeding, adding rock rapids, and tree planting.

Future creek restoration projects are also proposed in Elgin, St. Charles, Eyota, and Pleasant Valley.

WinLaC Partnership

Contact Information



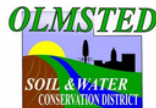
Root River SWCD

www.co.houston.mn.us/departments/soil-and-water
(507) 724-5261 ext. 3
805 State Highway 44/76
Caledonia, MN 55921



Houston County

www.co.houston.mn.us
(507) 724-5261
304 S. Marshall St
Caledonia, MN 55921



Olmsted SWCD

www.olmstedcounty.gov/residents/soil-water-resources/soil-and-water-conservation-district
(507) 328-7070
2122 Campus Dr SE Ste 200
Rochester, MN 55904



Olmsted County

www.olmstedcounty.gov
(507) 328-6000
151 4th St SE
Rochester, MN 55904



Wabasha SWCD

www.wabashaswcd.org
(651) 565-4673
611 Broadway Ave Ste 10
Wabasha, MN 55981



Wabasha County

www.co.wabasha.mn.us
(651) 565-3062
625 Jefferson Ave
Wabasha, MN 55981



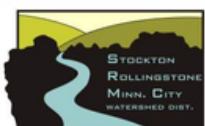
Winona SWCD

www.winonaswcd.org
(507) 523-2171
400 Wilson St N
Lewiston, MN 55952



Winona County

www.co.winona.mn.us
(507) 457-6520
202 W 3rd St
Winona, MN 55987



Stockton-Rollingstone-Minnesota City Watershed District



City of Winona

www.cityofwinona.com
(507) 457-8234
207 Lafayette St
Winona, MN 55987

Visit the WinLaC Partnership for more information:

<https://bit.ly/WinLaC1W1P>



THANK YOU

To our Federal, State, and Local partners that provided leveraged funds and support to **help make progress possible** toward restoration and protection of WinLaC resources.

Partners include Natural Resources Conservation Service, Minnesota Board of Water and Soil Resources, Minnesota Department of Agriculture, Minnesota Department of Health, Minnesota Pollution Control Agency, Minnesota Department of Natural Resources (all divisions), Minnesota Forest Resources Council and Southeast Landscape Committee, townships and cities within the WinLaC boundaries, and **citizens and landowners willing to implement conservation projects.**