



Blue Earth River

Comprehensive Watershed Management Plan



Plan Acknowledgements



Local Planning Partnership

Blue Earth County and SWCD
 Faribault County and SWCD
 Freeborn County and SWCD
 Jackson County and SWCD
 Martin County and SWCD
 City of Fairmont

Created in Collaboration With

Houston Engineering, Inc.
 7550 Meridian Circle North, Suite 120
 Maple Grove, MN 55369

Funded By

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Advisory Committee

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Acronyms

TWIP	One Watershed, One Plan
ACEP	Agricultural Conservation Easement Program
AIS	Aquatic Invasive Species
BERW	Blue Earth River Watershed
BMP	Best Management Practice
BWSR	Board of Water and Soil Resources
CAFO	Concentrated Animal Feeding Operation
CIP	Capital Improvement Project
CREP	Conservation Reserve Enhancement Program
CRP	Conservation Reserve Program
CSP	Conservation Stewardship Program
CWMP	Comprehensive Watershed Management Plan
DNR	Minnesota Department of Natural Resources
DWSMA	Drinking Water Supply Management Area
EQIP	Environmental Quality Incentive Program
FM	Flood Migration Assistance
FSA	Farm Service Agency
FWP	Farmable Wetlands Program
GAM	Grants Administration Manual
GBERBA	Greater Blue Earth River Basin Alliance
GRP	Grassland Reserve Program
HAB	Harmful Algae Blooms
HMGP	Hazard Mitigation Grant Program
HUC	Hydrologic Unit Codes
IBA	Important Bird Areas
LGU	Local Government Unit
LPSS	Lakes of Phosphorus Sensitivity Significance
MAWQCP	MDA Agricultural Water Quality Certification Program
MDA	Minnesota Department of Agriculture
MDH	Minnesota Department of Health
MnDOT	Minnesota Department of Transportation
MOA	Memorandum of Agreement
MPCA	Minnesota Pollution Control Agency
MS4	Municipal Separate Storm Sewer Systems
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
PCBs	Polychlorinated Biphenyls
PDM	Pre Disaster Mitigation
PFAS	Per- and Polyfluoroalkyl Substances
PTMApp	Prioritize, Target, and Measure Application
RCPP	Regional Conservation Partnership Program
RIM	Reinvest in Minnesota
SRF	State Revolving Fund
SSTS	Subsurface Sewage Treatment System
SWAG	Surface Water Assessment Grants
SWCD	Soil and Water Conservation District
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
TN	Total Nitrogen



TP	Total Phosphorus
TSS	Total Suspended Solids
USFWS	United States Fish and Wildlife Service
USDA	United States Department of Agriculture
USGS	United States Geological Survey
WASCOB	Water and Sediment Control Basin
WBIF	Watershed-Based Implementation Funding
WCA	Wetland Conservation Act
WHAF	Watershed Health Assessment Framework
WMA	Wildlife Management Areas
WPLMN	Watershed Pollutant Load Monitoring Network
WRAPS	Watershed Restoration and Protection Strategy
WRP	Wetland Reserve Program

1. Executive Summary



Photo Credit: Blue Earth County

Section 1. Executive Summary

Introduction

The Blue Earth River Watershed (BERW), located in southern Minnesota along the Iowa border, covers nearly 800,000 acres around the Blue Earth River and within the Minnesota River Basin (**Figure 1-1**). Although the hydrologic boundary of this watershed extends south into Iowa, this plan only considers the area on the Minnesota side of the border. The watershed is home to many in Blue Earth, Jackson, Martin, Faribault, and Freeborn counties, and with cropland as the dominant land use, the watershed supports many producers and farms. The watershed is home to the cities of Blue Earth and Fairmont as well as the Fairmont Chain of Lakes, a unique recreational asset to the surrounding area.

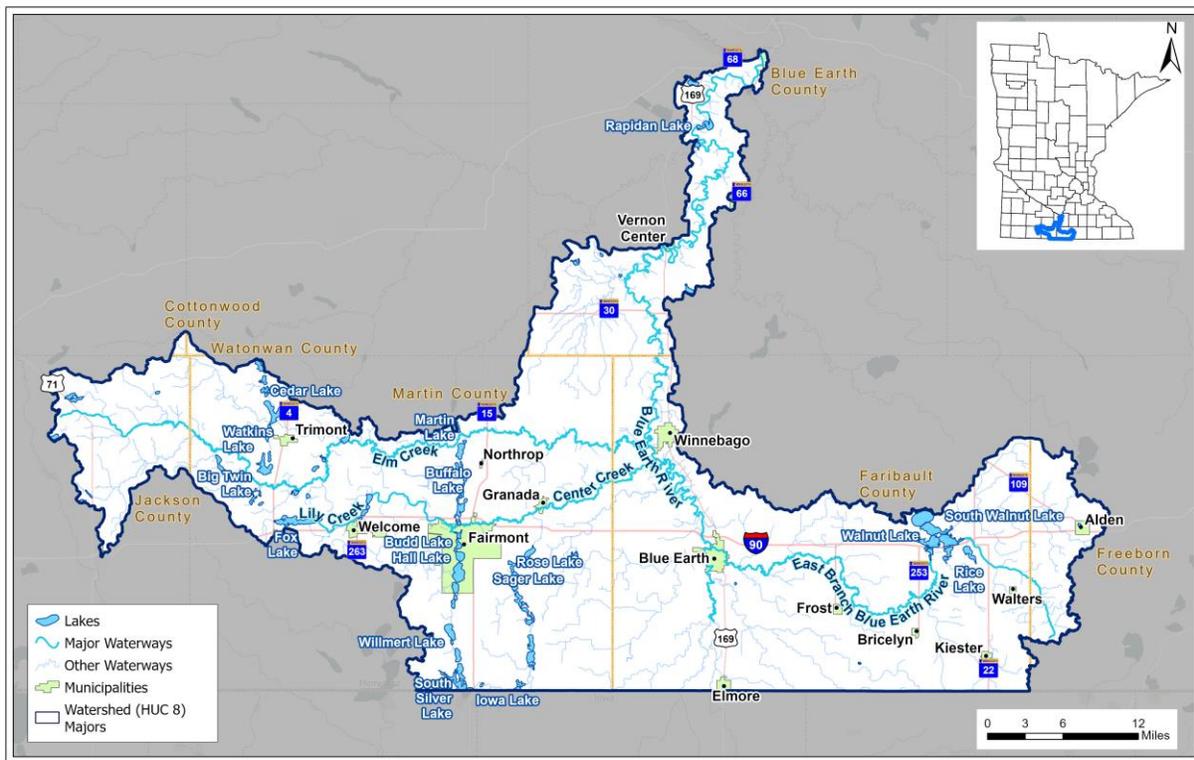


Figure 1-1. Blue Earth River Watershed plan area

This Blue Earth Comprehensive Watershed Management Plan (CWMP) was developed as part of the Minnesota Board of Water and Soil Resources' (BWSR's) One Watershed, One Plan (1WIP) program. The 1WIP departs from traditional local water planning along county jurisdictional boundaries to instead encourage local government partnerships to plan resource management along watershed boundaries. The BERW joins watersheds throughout the state in having a CWMP through the 1WIP program, which opens the door to noncompetitive funding to achieve the actions described in this plan. This 10-year CWMP is active from 2026-2035, upon which the plan will be reviewed and updated.

Planning Partners

Local governmental units (LGUs) convened in 2024 to form a planning Memorandum of Agreement (MOA, see **Appendix A**) to develop this CWMP. MOA members include:

- City of Fairmont
- Blue Earth, Faribault, Freeborn, Jackson, and Martin counties
- Blue Earth, Faribault, Freeborn, Jackson, and Martin Soil and Water Conservation Districts (SWCDs)

Throughout the planning process, the following three committees guided plan content and decisions:

- **Steering Committee:** A committee comprised of local government staff who initially drafted and recommended content to the other committees.
- **Advisory Committee:** A committee comprised of state agency staff, local professionals, and community stakeholders who provided expert advice on plan themes, priorities, and content. The Advisory Committee includes Steering Committee members.
- **Policy Committee:** A committee comprised of an elected official from each MOA entity and was responsible for reviewing and approving drafted plan content.

The public was also involved in the creation of this plan. A public kick-off meeting was held in Fairmont on May 2024, where community members were invited to learn about the watershed planning process and provide input on watershed issues. Nearly 300 people filled out a survey to better understand the community's top concerns. Based on survey responses, priority concerns for the community included pollutants like sediment, nutrients, and bacteria impacting aquatic life and recreation; management of aquatic invasive species; and drinking water protection from contamination. **The public's priority concerns were considered in the planning and prioritization process- many of which emerged as a focus in this plan.**

The Blue Earth River CWMP will be implemented through the Greater Blue Earth River Basin Alliance (GBERBA) Joint Powers Entity. GBERBA is a Joint Powers Organization consisting of member local government units encompassing the Blue Earth, Le Sueur, and Watonwan River Watersheds.

Issues and Goals

Issues impacting resources in the BERW were identified by referencing existing data and reports, soliciting letters from relevant state agencies, and listening to feedback from watershed stakeholders, including the public and planning committees. In total, 20 issues were identified. These issues were then prioritized to focus implementation efforts. Issues were prioritized based on the prominence of the issue in existing sources (the public survey, agency reports, county water plans, and agency letters), with a higher priority assigned for issues that were most prominent. The 15 High and Medium priority issues each have a 10-year measurable goal set to address them (**Table 1-1**). **A goal is a quantifiable change expected in a resource condition in the plan's 10-year timeframe.**

Table 1-1: Priority issues and their associated 10-year goals

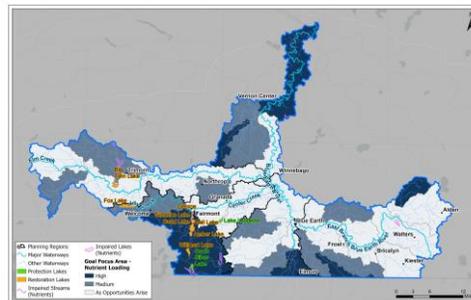
High Priority Issues	Issue/Goal	Issue Statement	10-Year Goal (Abbreviated)
	Erosion and Sedimentation	Upland erosion delivers sediment to surface water, impacting aquatic life and recreation	Reduce upland sediment loading by 10%
	Stream, Ravine, and Shoreline Erosion	Incised and unstable streambanks, shorelines, and ravines combined with the naturally steep slopes of the downstream region experience significant erosion	Stabilize or enhance 2,000 feet of shoreline and 2,000 feet of ravines or streambanks
	Nutrient Loading	Phosphorus and nitrogen are degrading lake and stream water quality, causing algal blooms and impacting aquatic life	Reduce total phosphorus and nitrogen by 4%
	Protection of Surface Drinking Water Sources	The Mankato and Fairmont drinking water sources are vulnerable to surface water contamination	Reduce total phosphorus (TP) and total nitrogen (TN) contributions to Budd Lake by 20% . Protect Mankato drinking water through the Nutrient Loading goal.
	Altered Hydrology and Flood Damage Reduction	Shifts in land use and climate, including changes in cropping patterns, increased drainage improvements, new impervious surfaces, and increased rainfall volume and duration, have all contributed to the increase in surface water volume and timing / velocity of flows.	Add 1,200 acre-feet of water storage
	Wetlands	Historical drainage of wetlands and subsequent loss of storage, habitat, and water quality benefits.	Restore 500 acres of wetlands
	Maintenance/Repair of Drainage Systems	Most of the cropland is drained by ditches and/or tile, some of which are aging and can result in high flow, sediment, bacteria, and nutrients to surface waters.	Reduce peak flows / volume as part of a petitioned repair, improvement proceeding, or voluntary project
	Soil Health	Degraded soil health has led to reduced water retention, agricultural productivity, and increased erosion.	Implement 30,000 acres of soil health practices

Medium Priority Issues	Issue / Goal	Issue Statement	10-Year Goal (Abbreviated)
	Bacteria Loading	Many waterbodies have high bacteria levels, impacting aquatic recreation	Develop 15 manure management plans or projects , address 60 noncompliant septic systems , and implement setbacks
	Aquatic Invasive Species	Aquatic invasive species (AIS) outcompete native species and impact aquatic life and recreation	Conduct five events and annual boat inspections
	Stormwater Runoff	Stormwater runoff from urban areas is a source of sediment and pollutants to surface water	Implement stormwater Best Management Practices (BMPs) to treat 20 acres of urban runoff
	Groundwater Contamination	Private wells are susceptible to groundwater contamination, specifically from arsenic and nitrate	Seal 100 wells
	Groundwater Supplies	Groundwater resources are vulnerable to overuse if withdrawal increases	Implement 3,500 acres of recharge conservation practices
	Aquatic Connectivity	Barriers such as dams and culverts are impeding fish passage and aquatic connectivity	Address four connectivity barriers
	Wildlife Habitat	Loss and fragmentation of prairie and the need for protection of unique natural features to support wildlife habitat	Protect 685 acres of land



Left: View from former Rapidan Dam. Source: Jill Sackett Eberhart. Right: Wetland Restoration. Source: Blue Foot Productions

With **Section 4—Measurable Goals**, each priority issue and measurable goal has a focus area map that shows where the work towards the goal will be prioritized based on available data. Data that supports focus area maps are described in each goal summary.



In addition to each goal having a focus map, 10 lakes were identified as priority lakes.

- **Protection Lakes:** South Silver and Imogene
- **Restoration Lakes:** Fox, George, Sisseton, Budd, Hall, Amber, Big Twin, and Wilmert

Planning Regions

This plan focused on the entirety of the BERW in Minnesota. However, given the vast size of the watershed, the significance and impact of resource-related issues can vary from the western to eastern, and southern to northern watershed extents. In recognition of this, local planning partners organized the watershed into five planning regions based on Hydrologic Unit Codes (HUC-10) boundaries (**Figure 1-2**). The creation of planning regions keeps the focus on watershed-wide management while allowing actions to be tailored to the watershed area they will have the greatest impact on.

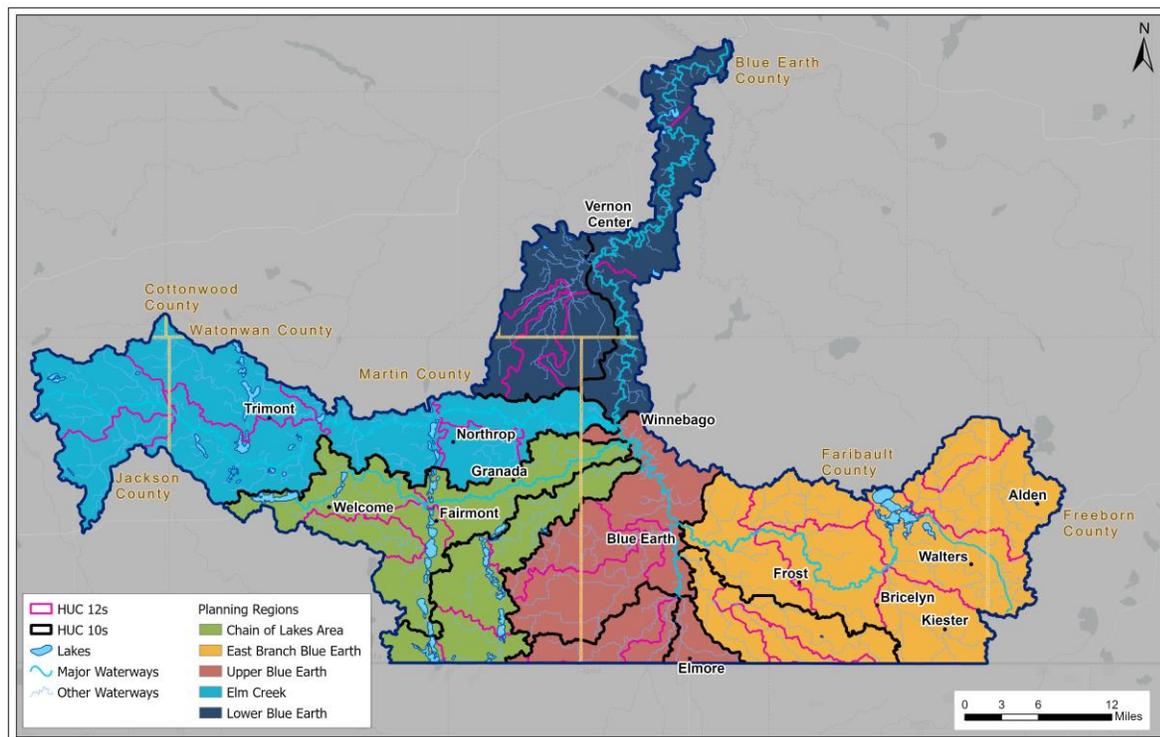


Figure 1-2. BERW Planning Regions

Implementation

Section 5—Targeted Implementation

contains a list of actions that are planned for implementation during the 10-year lifespan of this plan. Actions were developed based on existing information, modeling outputs, committee input, and data gaps discovered as part of the planning process. These actions were developed to make each measurable goal achievable. Actions are carried out through one of five implementation programs:



Projects and Practices



Public Participation and Engagement



Research and Data Gaps



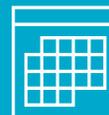
Capital Improvements



Local Controls

Each action table contains:

- Action description
- Focus Area
- Trackable output
- Goals directly or indirectly affected by the action
- Entities responsible for implementation
- Timeline
- Estimated local and partner costs



Actions are summarized into action tables organized by implementation program. In order to streamline implementation, actions within the Projects and Practices implementation program are broken down further for specific planning regions based on the prominence of issues and goals unique to each area.

This plan includes 11 actions under Projects and Practices, 12 actions focused on Participation and Public Engagement, and 9 actions addressing Research and Data Gaps. Examples of these actions include:



Projects and Practices: Implement 30,000 acres of soil health practices, stabilize 2,000 feet of lake shoreline, and seal 100 unused wells.



Public Participation and Engagement: Hold five workshops on invasive species, hold 25 outreach and education events related to agriculture and soil, and hold four well testing clinics.



Research and Data Gaps: Complete a feasibility study for water storage projects and conduct a microbial source assessment for bacteria sources.

Implementation Cost

The cost of each action is listed in the action tables. A summary of the total plan cost, categorized by implementation program, is shown in **Table 1-2**. The cost for implementing all the actions in the plan is shown both by local costs as well as partner and federal costs.

Table 1-2. Funding Summary by Program

Program	Local 10-Year Plan Cost	Partner/Federal 10-Year Plan Cost
Projects and Practices	\$10,060,800	\$23,512,500
<i>Project Development</i>	\$1,360,000	N/A
<i>Technical Assistance</i>	\$873,000	N/A
Public Participation and Engagement	\$1,480,000	N/A
Research and Data Gaps	\$510,000	N/A
Local Controls	\$7,701,000	N/A
Capital Improvements	\$250,000	N/A
Operations and Maintenance	\$449,000	N/A
Plan Administration	\$500,000	N/A
Total	\$23,183,800	\$23,512,500

The Blue Earth River Partnership anticipates a local budget of \$1,966,000 annually—or \$19,660,000—over the 10-year plan (for more details, see **Section 7—Plan Administration and Coordination**. **This means that to meet plan goals, the Blue Earth River Watershed Partnership estimates needing an additional \$352,380 per year, or \$3,523,800 over the 10-year plan.**

During Implementation

This plan is active from 2026-2035. A work plan will be reviewed by the Blue Earth Subcommittee and approved by GBERBA as needed. As this is a 10-year plan, there will be a midpoint assessment to evaluate progress and determine if changes to the plan are needed. If a significant change is proposed, BWSR has a formal amendment process. At the end of the plan's lifespan, the plan will be updated and revised to adjust to new data, resource conditions, and available funding.



Osmundson Prairie Scientific and Natural Area. Source: DNR.