

## SECTION 7.0 IMPLEMENTATION PROGRAMS

### 7.1 Implementation Programs

In Section 6, each action is assigned to either a structural practice, management practice, education and outreach, data gaps and research, regulatory, or capital improvement targeted implementation schedule. These action types correspond to the implementation program which will be used to fund the action.

Implementation programs are the funding mechanism to implement actions and make progress toward achieving plan goals. This plan establishes implementation programs for the WRCWMP and describes them conceptually in this section.

#### ***Structural and Management Practices Cost-Share Incentive Program***

The Structural and Management Practices Cost-Share Incentive Program funds actions pertaining to the planning, design, and implementation of on-the-ground projects and practices to make progress towards plan goals. These can be structural practices (e.g. grassed waterways, controlled drainage) or management practices (e.g. cover crops, nutrient management, conservation tillage). Table 7-1 provides a list of example practices that may be eligible to receive funding from the Structural and Management Practices Cost-Share Incentive Program.

Practices funded by the Structural and Management Practices Cost-Share Incentive Program are typically much smaller in size than capital improvement projects. The program assists landowners in implementing these voluntary actions through financial incentive, technical assistance, conservation easement, or land acquisition.

Grant applications to fund the Structural and Management Practices Cost-Share Incentive Program will be prepared jointly through WRCWMP entities to promote consistency in services across the plan area. During implementation, the WRCWMP partners will create a decision-making process using criteria to prioritize what practices get funded, and how much funding practices will receive. Example prioritization criteria that will be used include prioritizing a project that:

- Is located within a priority subwatershed in agreement with plan goals,
- Is identified in the targeted implementation schedule, and
- Impacts (is within or upstream of) a priority resource.

Additional considerations may include:

- Projects that make progress toward multiple goals,
- Landowner willingness, and
- Progress made toward goals.

The Partnership will evaluate prioritization criteria annually as part of its work plan process. Each local partner will work with landowners within their jurisdiction to identify projects.

**Table 7-1: Probable list of structural and management practices eligible for funding under the Structural and Management Practices Cost-Share Incentive Program. This list is not comprehensive, additional practices may be included by discretion of WRCWMP Partners.**

Structural or Management Practice	NRCS Code	Storage	Filtration	Bio-filtration	Infiltration	Protection	Source Reduction	User Defined
Alternative Tile Intake - Gravel Inlet	606		x					
Alternative Tile Intake - Other Blind Intake	606		x					
Alternative Tile Intake - Perforated Riser Intake	606	x						
Anaerobic Digester	366							x
Bioretention Basin	N/A			x				
Conservation Cover	327						x	
Conservation Crop Rotation	328						x	
Conservation Tillage	329						x	
Constructed Wetlands	N/A	x						
Contour Buffer Strips	332		x					
Contour Farming	330						x	
Cover Crop	340						x	
Critical Area Planting	342					x		
Culvert Sizing	N/A	x						
Dam	402	x						
Drainage Water Management	554	x						
Filter Strips	393		x					
Forage and Biomass Planting	512						x	
Grade Stabilization Structure	410					x		
Grassed Waterways and Swales	412		x			x		
Infiltration Trench	N/A				x			
Irrigation Water Management	442						x	
Lined Waterway or Outlet	468				x			
Multi-stage Ditch	N/A				x			
Nutrient Management	590						x	
Pest Management	595							x
Pond for Water Use	378	x						
Prescribed Burning	338							x
Prescribed Grazing	556						x	
Riparian Forest Buffer	391		x					
Riparian Herbaceous Cover	322		x					
Roof Runoff Management	558							x
Rotational Grazing	N/A						x	
Saturated Buffer	N/A			x				
Sediment Basin	350	x						
Septic System Improvement	N/A							x
Storm Water Retention Basins	N/A	x						
Stream Channel Stabilization	584					x		
Streambank and Shoreline Protection	580					x		
Strip-cropping	585					x		
Structure for Water Control	587	x						
Terrace	600		x					
Tree/Shrub Establishment	612					x		
Water and Sediment Control Basin	638	x						
Water Reuse	636							x
Wetland Creation	658	x						
Wetland Restoration	657	x						

### **Education and Outreach Implementation Program**

The primary purpose of the Education and Outreach Implementation Program is to create positive and impactful education and outreach experiences for the general public, property owners, and local decision makers. The Education and Outreach Implementation Program funds actions categorized as “education and outreach” in Section 6. Implementation of these actions make progress toward or accomplish plan goals. Examples include:

- Action: Hold 1 educational workshop annually to promote implementation of nutrient management practices.
  - ✓ Accomplishes Goal SW 3.1c: Conduct 10 educational efforts to highlight existing nutrient management and watershed BMP incentive programs.
- Action: Request and work with MN DNR to hold 2 public outreach efforts to discuss lake level management.
  - ✓ Accomplishes Goal SW 2.2a: Conduct 2 educational outreach efforts with the DNR to discuss lake management.
- Action: Complete 100 visits annually to local landowners to encourage enrollment in state and federal programs to preserve and restore wetlands.
  - ✓ Accomplishes Goal SW 4.1b: Complete 1,000 contacts with local landowners to encourage enrollment in state and federal programs to preserve and restore wetlands.

The entities in the WWPP have worked collaboratively on education and outreach on a watershed basis for decades, such as those carried out during the WRAPS process. During the planning process, an education and outreach analysis was completed to evaluate further need for public participation and engagement in meeting plan goals. The result of this analysis is the Education and Outreach Implementation Program, goals, and actions created in this plan.

The outcomes of actions funded by the Education and Outreach Implementation Program will be evaluated through surveys. The intent of these surveys is to gauge the impact the education/outreach efforts (and funds spent on them) were having on the watershed. Further, plan partners will consolidate educational activity information monthly to assess progress toward measurable goals. Outreach efforts will be documented on an annual basis and will be reported back to BWSR.

The Education and Outreach Implementation Program will be locally administered by representative WRCWMP entities or administered through sharing of services (*Appendix T still in development; see current MOA as example in Appendix A*). Expectations are that a common set of education and outreach materials will be developed for use across the watershed but delivered by the staff within each county.

Plan partners already collaborate with others to increase education, outreach, and community engagement within the WRW on a variety of topics and events. Establishment of the Greater Blue Earth River Basin Alliance (GBERBA) in 2003 organized efforts to streamline watershed-wide public engagement. Between 2015 and 2018, members of the WWPP and the Minnesota Pollution Control Agency (MPCA) conducted individual stakeholder interviews, formed focus groups across the watershed, and facilitated citizen and conservation partner meetings to better understand how the community perceives watershed health. These efforts helped develop the WRAPS which served as the backbone of many WRCWMP measurable goals and actions.

Several public outreach and education activities are tailored to youth, such as Earth Day programs in area schools, and fairs throughout the six WRW counties. These activities center around educating area youth on the importance of our natural landscape and the environmental issues that impact it.

Social media is a medium the WRCWMP entities will leverage in addition to in-person efforts. Most commonly, these are Facebook, Twitter, and YouTube. Though many citizens use these platforms as their source for news and information, many do not. Therefore, e-mail, website updates, newsletters, news

articles, and other releases will remain a priority for communicating WRCWMP activity to the general public, property owners, and local decision makers. The GBERBA (<https://www.gberba.org/>) and Watonwan River Watershed Network (<https://watonwanriver.org/>) websites are examples of this method of education and outreach delivery.

### **Research and Monitoring Implementation Program**

The Research and Monitoring Implementation Program funds actions categorized as “data gaps and research” in Section 6. These actions close data gaps to inform effective implementation strategies and better meet plan goals. Examples of these actions include:

- ✦ Target key landscapes and areas that should be priority for reducing runoff (e.g. steep slopes, highly erodible soils) utilizing PTMAApp data outputs and available geologic/soils data; and
- ✦ Identify and prioritize aquifer recharge BMPs within identified DWSMAs; and
- Continue monitoring programs including such as well head monitoring, volunteer rain gauges, water sampling, and lake level monitoring.

WRCWMP entities have and will continue to invest in the development and assembly of data and information. A large portion of this data and information are water quality monitoring data. A diverse set of partnering state agencies and local units of government have a robust surface and groundwater monitoring network in place that continues to be refined. The actions of this plan will maintain existing efforts and pursue additional ones to fill identified data gaps.

Local entities continue to pursue funding to assess and monitor water quality in the WRW to fill identified data gaps, measure progress toward implementation goals for both protection and restoration and provide the basis for future planning and adaptive management. As finding the funding for this is difficult, there will likely be a need to rely heavily on state agency partners.

WRCWMP entities have decided there is sufficient monitoring to measure the pace of progress for implementing this plan. Over the course of the year, WRCWMP entities will use the best available science and tools to estimate progress toward measurable goals, including PTMAApp results (or similar) (Table 7-2 on the following page). If additional data gaps are presented in the future, additional monitoring will be used to close those gaps. Analysis of data will be conducted as a result of the WRCWMP to guide annual work planning efforts and refine prioritization efforts within the WRW.

There are three main water quality programs administered by MPCA as part of its watershed approach, which is a 10-year rotation for assessing waters of the state (MPCA, 2012). The first is Intensive Watershed Monitoring, which provides a periodic snapshot of water quality conditions every ten years. The second is the Watershed Pollutant Load Monitoring Network, which provides long-term, continuous assessments of water quality conditions in between years of intensive monitoring at HUC 8 and HUC 10 scales (MPCA, 2020a; <https://www.pca.state.mn.us/water/watershed-pollutant-load-monitoring>). The third is the Citizen Stream and Lake Monitoring Program, which engages local citizen volunteers to become more active in collecting water quality data. There are two such sites in the WRW, located on Judicial Ditch 1 and the Watonwan River near Madelia (MPCA, 2016). Combined, the 54 total biological monitoring sites, 17 stream chemistry sites, and other ongoing tracking and monitoring programs can be used by plan participants to document measurable water changes resulting from implementation as part of this program (Table 7-2).

The MPCA awarded Surface Water Assessment Grants (SWAG) to the Minnesota State University Mankato Water Resource Center in 2014 for water quality monitoring in the Watonwan River. The goals of these SWAG grants have been to expand the local entities’ training programs and outreach efforts enabling organizations to recruit and retain additional citizen volunteers for both lake and stream monitoring in the WRW and enhance and complete datasets for streams and lakes throughout the

watershed to evaluate overall water quality. Other existing surface water monitoring sites in the plan area are operated by the DNR and the USGS.

To meet plan goals, monitoring efforts must also support tracking of groundwater supply quantity and quality trends in the WRW. Programs currently monitoring groundwater status and trends include the Public Water Supplier Monitoring, MPCA's Ambient Groundwater Monitoring Program, MDA's Township Testing Program, DNR's Observation Well Network, and DNR's water appropriation permits (MPCA, 2018). The MDA has groundwater sampling locations (two sites in Watowan County), 48 pesticide and/or nutrient water quality samples collected from two river/stream locations, and one pesticide water quality sample collection event from one lake. Current DNR GIS layers indicate that there are greater than 40 active observation wells within the WRW. Most of these wells are owned by DNR and read by the local SWCD, with fewer than 10 of these wells monitored by permitted water users in the watershed. MPCA's Ambient Groundwater Monitoring Program has 138 wells that have been monitored on at least one occasion in the six-county watershed area.

During implementation, the Research and Monitoring Implementation Program will build on the data and information processes already established by plan participants. This program will also be used to fund implementation of actions aimed to build and maintain technical capacity to fully utilize new technology and tools for water resource management. The Research and Monitoring Implementation Program will be operated through the sharing of services (Appendix T).

**Table 7-2: Example means for tracking and documenting implementation progress.**

Level	Description	Example Application
Tracking	Counting number of practices, acres of soil health management practices, number of workshops, etc.	<p>"Output" in targeted implementation schedule (Section 6). Projects will be tracked and reported in eLINK and local database during implementation.</p> <p><i>Example Goal: SW 3.1a - Achieve a 5% reduction in phosphorus</i></p> <p><i>Example Tracking: Number of structural and management practices implemented</i></p>
Estimating	Using lower resolution calculators and tools to give a sense of the individual or collective impacts of projects.	<p>Engineer estimates, existing PTMApp results</p> <p><i>Example Goal: SW 3.1a - Achieve a 5% reduction in phosphorus</i></p> <p><i>Example Estimating: Existing PTMApp phosphorus reduction benefits at the outlet of each planning region for each practice implemented</i></p>
Modeling	Incorporating landscape factors and project information to predict future conditions.	<p>PTMApp, HSPF in WRAPS Cycle 2</p> <p><i>Example Goal: SW 3.1a - Achieve a 5% reduction in phosphorus</i></p> <p><i>Example Modeling: Updates in land use land cover from implementation accounted for in HSPF to evaluate total phosphorus reduction</i></p>
Measuring	Using field-collected information to assess the condition of the water.	<p>Watershed Pollutant Load Monitoring Network, WRAPS Cycle 2</p> <p><i>Example Goal: SW 3.1a - Achieve a 5% reduction in phosphorus</i></p> <p><i>Example Measuring: Measuring total phosphorus reductions in water quality monitoring of planning region streams</i></p>
Proving	Having enough measurements to compare with standards and decide if it's improved.	<p>Analysis of loading at watersheds pour point (Watershed Pollutant Load Monitoring Network), WRAPS Cycle 2</p> <p><i>Example Goal: SW 3.1a - Achieve a 5% reduction in phosphorus</i></p> <p><i>Example Proving: Documenting total phosphorus reductions at the outlet of the planning region, measured by Watershed Pollutant Load Monitoring Network</i></p>

### ***Capital Improvements Implementation Program***

A capital improvement is defined as a major non-recurring expenditure for the construction, repair, retrofit, or increased utility or function of physical facilities, infrastructure, or environmental features. Capital improvements are beyond the “normal” financial means of WRCWMP entities and therefore require external funding. To be considered a capital improvement for purposes of this plan, a project must have an anticipated cost of at least \$250,000.

Table 7-3 shows proposed capital improvements within the WRW. Projects range from flood control to large scale drainage projects, any of which may be pursued by the implementation activities set forth in this plan. This list of proposed improvements is consistent with the priorities of this plan and established measurable goals. Additional discussions are needed among plan participants to develop the specific process for implementing capital improvements. Specifically, members of the Policy Committee or WRCWMP individual entities and representative Boards are expected to discuss the means and methods for funding new capital improvements with potential funding partners before an implementation timeline can be established. This includes engagement of drainage authorities to ensure large scale multi-purpose drainage priorities are in line with the goals of this plan.

Front-end engagement of property owners will be critical when pursuing implementation of permanent protection projects. This plan prioritizes land for permanent protection as part of the Structural and Management Practices Cost Share Initiative. Within this program, 20% of each planning region's structural and management practices budget is allocated to easements in each planning region.

### ***Operations and Maintenance Implementation Program***

Entities within the WRW are engaged in the inspection, operation, and maintenance of capital projects, stormwater infrastructure, public works, facilities, and natural and artificial watercourses, and legal drainage systems. Operation and maintenance of legal ditches, impoundments, and small dams will continue under regular operations and maintenance plans of the entities with jurisdiction over these systems. Capital improvement projects will be operated and maintained by the owner of the project for the lifespan of the project as specified in Table 7-3, but projects will be pursued collaboratively as watershed-wide collaborations. Budget information pertaining to the Operations and Maintenance Program can be found in Section 6.

**Table 7-3: Potential capital improvement projects in the WRCWMP area.**

Capital Improvement Project/ Program	Description	Project Owner	Information Source	Years Start/ End	Estimated Cost	
Blue Earth County	Mitigation	Remove riparian hazards and restore Watonwan streambank (3 dwellings)	County	County	2021	\$450,000
	Mitigation	Remove riverine erosion hazards and restore Watonwan River bluff	County	County	2021-2031	\$450,000
	Repair	Repair public water access on Watonwan River	County	County	2020-2022	\$200,000
Brown County	Bridge Replacement	Replace 2 existing bridges in Albin Township	County	Highway Department	2020-2029	\$390,000
	CD44	Feasibility study in progress, considering water storage	County	Drainage Authority	2021	\$250,000
	CD33	Landowner interest in retention/sediment pond	County and SWCD	County	2021	\$250,000
Cottonwood County	Mountain Lake Wastewater Treatment	Install 2 new treatment ponds	City	City	2020-2022	\$250,000
	Bingham Lake Stormwater	Install stormwater drainage and holding pond	City	City	2021-2023	\$250,000
	Replace Bridges	Replace 3 bridges in the WRW	County	County	2020-2025	\$750,000 (3)
Martin County	Perch Creek	Streambank restoration	Martin SWCD/DNR	Martin SWCD/DNR	2021-2022	\$250,000
Watonwan County	Storm water retention	Towns in the county	City/County/EPA	County	TBD	\$1,500,000
	Upgrade stormwater discharge	La Salle	City of La Salle, County, Feds	Contacts with La Salle	2022-2024	\$250,000
	La Salle – Upgrade city water supply	Upgrade city water supply	City of La Salle	La Salle & MDH	2020-2023	\$996,000
	Darfur – Upgrade city water supply	Upgrade city water supply	Darfur/MDH/Homeowners	Darfur & MDH	2020-2021	\$750,000
	Madelia Flood Control	Protect property and infrastructure	City of Madelia/DNR/County/FEMA/Landowners	Local reports, DNR maps, Updated floodplain	2022-2027	\$1,000,000
	Wetland restoration	Restore 5 wetlands of various sizes	SWCD/BWSR/ACOE/Landowners	County	2021-2030	\$1,000,000
	Stabilize Roads Bordering Wetland	Antrim and Adrian township	County	County	2021-2023	\$400,000
	JD-8	Storage	County	County	2021-2023	\$300,000
	JD-11	Storage	County	County	2021-2023	\$300,000
	JD-18	2 Storage Basins	County	County	2021-2023	\$475,000
	JD-26	Storage	County	County	2020-2022	\$300,000

### **Regulatory Administration Implementation Program**

Many of the issues impacting resources in the WRW can be addressed in part through the administration of statutory responsibilities and local ordinances. These actions are categorized as “regulatory” in the targeted implementation schedule and are funded by the Regulatory Administration Implementation Program. Table 7-5 (at the end of this section) shows the relationship between statutory obligations and local ordinances administered by WRCMP entities. Further, this table (7-5), along with descriptions below show areas of regulation and enforcement that are potentially duplicative within the WRW, identifying potential opportunity for shared services.

Currently WRCWMP entities share services for the administration of WCA. Watonwan and Cottonwood share the same LGU for administration of the Wetland Conservation Act (WCA). For feedlot representation, Brown and Watonwan County share the same service. As part of implementation, WRCWMP entities will hold joint discussions with watershed partners that enforce ordinances and permit programs to provide consistency, effectiveness, and efficiency across the watershed to benefit water quality and habitat vitality.

### **Statutory Responsibilities**

The state statutes administered by the counties involved in this plan are described below. In many cases, local regulations and ordinances have been adopted to conform to the standards and requirements of the state statutes (Table 7-5). The responsibility for implementing these programs will remain with the respective counties or appointed LGUs.

### **Buffer and Soil Loss Legislation**

During the 2015 legislative session, the State of Minnesota passed the Buffer and Soil Loss Legislation (Minnesota Statute 2018, section 103F.48-Riparian Protection and Water Quality Practices), commonly referred to as the Minnesota Buffer Law. The legislation requires a 50-foot average, 30-foot minimum width, continuous buffer of perennial vegetation or an approved alternative water quality practice based on the Natural Resources Conservation Service Field Office Technical Guide (FOTG) for all public waters identified on the public waters inventory, and a 16.5-foot minimum width continuous buffer of perennial vegetation for public drainage systems established under chapter 103E. Local SWCDs are required to assist landowners with implementation of the Buffer Law requirements, which includes planning, technical assistance, implementation of approved alternative practices, and tracking progress towards compliance. Counties can elect jurisdiction of enforcement or allow for state enforcement through BWSR. Counties who elected jurisdiction can incorporate the water resources riparian protection requirements of the Buffer Law into an existing county ordinance or develop a revised ordinance which follows the minimum restriction as stated in statute. SWCDs are required to notify the enforcement agency of a noncompliance parcel upon determination.

As part of the Buffer and Soil Loss Legislation, other water courses were identified by the local SWCDs and incorporated into County Water Plans prior to the development of this plan. These watercourses are shown on Figure 4-9.

### **Feedlots**

Feedlot rules, regulations, and programs were established under MN Rules Ch 7020 and are administered through the MPCA. Counties participating in the WRCWMP are delegated by the MPCA to provide feedlot regulatory oversight and technical assistance programs and maintain a feedlot inventory. Counties also have local ordinances that address feedlots. For example, feedlot size and location are regulated by county zoning ordinances.

### **Floodplain Management**

Floodplain zoning regulations are enforced in all counties through county zoning ordinances. These regulations are intended to guide development in the floodplain consistent with the magnitude of the flood threat to minimize loss of life and property, disruption of commerce and governmental services,

extraordinary public expenditure for public protection and relief, and interruption of transportation and communication.

The DNR and FEMA are in the process of updating floodplain maps on a county basis. Current flood maps can be found on the DNR website at [https://www.dnr.state.mn.us/waters/watermgmt\\_section/floodplain/access-flood-maps.html](https://www.dnr.state.mn.us/waters/watermgmt_section/floodplain/access-flood-maps.html). Counties are required to have these maps and county ordinances so citizens can participate in FEMA flood insurance programs. However, FEMA floodplain maps are not representative of all flooding in the counties.

### ***Hazard Management***

Section 104 of the Disaster Mitigation Act of 2000 (DMA 2000), Public Law 106-390, codified at 42 USC Sections 5121 et seq. Hazard Mitigation Planning, 44 CFR Part 201, established criteria for state and county hazard mitigation planning. Counties participating in the WRCWMP have developed hazard mitigation plans because of DMA 2000. Some counties have incorporated hazard management in their zoning ordinances.

### ***Subsurface Sewage Treatment Systems (SSTS)***

Counties participating in the WRCWMP administer Minnesota Rules Chapter 7080 through 7083 for SSTS. The program provides technical assistance, education, plan review, and inspections to protect water quality, prevent and control water borne diseases, and prevent or eliminate nuisance conditions.

### ***Shoreland Management***

The Minnesota Legislature has delegated responsibility to LGUs to regulate the subdivision, use, and development of shorelands along public waters to preserve and enhance the quality of surface waters, conserve the economic and natural environmental values of shorelands, and provide for the wise use of waters and related land resources. This statute is described in M.S. Statutes 103F and 394 as well as MN Rules Ch 6120.250–6120.3900. This statute is administered and enforced as a zoning ordinance or state statute, requiring an average of 50-foot buffer around public waters. Additional setback may apply per local ordinance.

### ***Solid Waste Management***

Counties participating in the WRCWMP operate solid waste management systems as directed by M.S. 115A and 400. These programs may include:

- ✦ Waste reduction and waste education programs;
- ✦ Curbside recycling and publicly owned and operated recycling center;
- ✦ Yard waste composting sites; and
- ✦ Regional hazardous waste management facility.

Additionally, all the WRW counties have either solid waste plans or ordinances for local implementation.

### ***Wetland Conservation Act (WCA)***

The Minnesota Legislature passed the Wetland Conservation Act of 1991 which is intended to result in “no net loss” of wetlands through filling, draining, excavating, or converting wetlands to other uses. This regulation is mandated by MN Rules Ch 8420. LGUs are responsible for administering, regulating, and educating landowners on WCA.

### ***Wellhead Protection***

The Minnesota Department of Health (MDH) administers the state wellhead protection rule, Minnesota Rules, Chapter 4720.5100 – 4720.5590, that sets standards for wellhead protection planning. Municipalities within the watersheds have completed or will be completing wellhead protection plans. The most recent listing of completed wellhead protection plans can be obtained from MDH.

### **Local Ordinances**

Local ordinances are used by the counties in the WRW to address issues specific to their county. Table 7-5 shows the counties which have ordinances related to managing water and resources. The responsibility for implementing these ordinances will remain with the respective counties.

### **Aggregate Management**

Individual counties regulate aggregate mining and reclamation. The State of Minnesota manages aggregates through M.S. 103 A-I.

### **Agricultural Soil Erosion**

The State of Minnesota manages soil erosion through Minnesota's Soil Erosion Law (M.S 103F.401-455). The law, enacted in 1984, states, "A person may not cause, conduct, contract for, or authorize an activity that causes excessive soil loss," where 'Excessive soil loss' is defined as "soil loss that is greater than the soil loss limits" and 'soil loss limits' is defined as "the maximum amount of soil loss from water or wind erosion, expressed in tons per acre per year, that is allowed by county regulations on a particular soil" (Section 103F.401). This law does not mandate local enforcement of a state-wide limit, but instead provides counties the opportunity to develop a soil loss ordinance specific to their area.

### **Bluff Protection**

Many counties specifically target bluffs due to their disproportionate impact on sediment erosion when the bluff becomes unstable. All six WRW counties address bluff protections in their shoreland and/or zoning ordinances.

### **Erosion Control**

Blue Earth, Brown, and Jackson Counties have erosion control regulations within their zoning ordinances/rules that address general erosion and sediment control measures. Statewide, the State of Minnesota requires permits through the National Pollutant Discharge Elimination System (NPDES) for construction activity disturbing one acre or more in size.

### **Forestland Management**

Jackson County manages trees and woodland through their zoning ordinances. This includes restrictions for structures being built in a wooded area to preserve trees, and standards for the harvesting of timber and associated reforestation or conversion of forested use to a non-forested use. Brown and Cottonwood Counties manage forest removal, shoreland alterations and bluff impact zones. Watonwan and Brown Counties have forest management standards in both impact bluff zones and as a provision for water quality for shoreland management.

### **Land Use**

Counties and municipalities within the WRW are responsible for land use planning, which is administered through local zoning ordinances. Five counties have comprehensive land use plans:

- ✦ Blue Earth County Land Use Plan (2018);
- ✦ Brown County Comprehensive Plan (2019);
- ✦ Cottonwood County (2005);
- ✦ Jackson County Comprehensive Plan (2010); and
- ✦ Martin County Land Use Plan (2003).

Watonwan and Cottonwood Counties have land use guidance built into their zoning ordinances.

### **Stormwater Runoff**

As part of Minnesota's administrative rules, chapter 7090 pertains to the storm water regulatory program and is administered by the MPCA. Stormwater runoff is managed for certain development through permits, dependent upon location in the watershed. Blue Earth, Brown, Jackson, and Watonwan

County zoning ordinances contain general and specific standards stormwater management (retain runoff and minimize erosion by natural or man-made structural means). In addition to the standards, Jackson County ordinances require compliance with the MPCA Stormwater Permit Program. Specific information pertaining to stormwater development triggers can be found on WRW county websites.

**Drainage Authority**

Drainage authority is granted to counties through MN Statute Chapter 103E to establish, construct, and in perpetuity maintain drainage systems (Table 7-4). Further, the designated Drainage Authority aims to improve public drainage by improvements, reroutes, repair, and ensuring buffer compliance. In Blue Earth County, the county drainage authority, ditch manager and drainage specialist manage public drainage and house documents and ditch maps on their DrainageDB website. In Brown County, the drainage system guidelines serve as the public drainage rules/regulations which are managed by the county board. Documents and ditch maps are housed on their DrainageDB website. In Cottonwood County, the ditch authority manages public drainage. In Jackson County, the drainage authority is the county public works department. Martin County has two drainage staff, however the County Board is still the drainage authority. In Watonwan County, the public works department manages a database of aerial photos within townships with public tile information. Additionally, Brown and Martin Counties have either drainage system guidelines or multipurpose drainage water management plans to provide further drainage guidance.

**Table 7-4: Drainage authority by WRW LGU.**

Entity	Drainage Authority (Y/N)
Blue Earth County	Yes - County Board
Brown County	Yes - County Board
Cottonwood County	Yes - Ditch Authority
Jackson County	Yes - Public Works
Martin County	Yes - County Board
Watonwan County	Yes - County Board

**Table 7-5: Statutory responsibilities and regulations, rules, and ordinances administered by the counties participating in the WRCWMP. This list is not intended to be all-inclusive.**

	Rule, Ordinance, or Statute Name	Blue Earth	Brown	Cottonwood	Jackson	Martin	Watowan
Statutory Responsibilities	Buffers	M.S. 103F.48					
		Blue Earth County Code of Ordinances Chapter 6 Article VIII, and Chapter 14	Default to state	Cottonwood County Ordinance Section 42	Jackson County Development Code Section 736	Martin County Buffer Ordinance	Default to State
	Feedlots	MN Rules Ch 7020					
		Blue Earth County Code of Ordinances Chapter 6, Article II	Brown County Zoning Ordinances Section 724	Cottonwood County Zoning Ordinance 2, Sect. 13	Jackson County Development Code Section 727	Martin County Feedlot Ordinance	Watowan County Zoning Ordinance Section 6
	Floodplain Management	MN Rules Ch 6120.5000-6120.6200					
		Blue Earth County Code of Ordinances Chapter 8 and Chapter 14, Article II	Brown County Zoning Ordinances Section 609	Cottonwood County Zoning Ordinance 28, Sect. 12F-1	Jackson County Development Code Section 609	Martin County Zoning Ordinance	Watowan County Zoning Ordinance Section 11
	Hazard Management	Blue Earth County Code of Ordinances Chapter 16	Brown County All Hazard Plan (2020)	Cottonwood County Zoning Ordinance 28, Sect. 26	Jackson County Solid Waste Ordinance 101	Martin County All-Hazard Mitigation Plan	Watowan County All-Hazard Mitigation Plan
	Public Water Courses and Basins (DNR)	M.S. 103G.005					
	Subsurface Sewage Treatment Systems (SSTS)	MN Rules Ch. 7080-7083					
		Blue Earth County Code of Ordinances Chapter 6, Article IV	Brown County Zoning Ordinances Section 7080	Cottonwood County Subsurface Sewage Treatment System (SSTS) Ordinance 38	Jackson County Development Code Section 716	Martin County SSTS Ordinance	Watowan County Zoning Ordinance Section 12L
Shoreland Management	M.S. 103F and 394 and MN Rules Ch 6120.250-6120.3900						
	Blue Earth County Code of Ordinances Chapter 14	Brown County Zoning Ordinances Section 732	Cottonwood County Zoning Ordinance 28, Section 17	Jackson County Development Code Section 610	Martin County Zoning Ordinance Chapter 13	Watowan County Zoning Ordinance Section 10	
Solid Waste Management	Blue Earth County Code of Ordinances Chapter 16	Brown County Solid Waste Plan (2019)	Cottonwood County Zoning Ordinance 19	Jackson County Solid Waste Ordinance 101	Martin County Solid Waste Ordinance	Watowan County Solid Waste Ordinance	
Wetland Conservation Act	MN Rules Ch 8420						
Local Regulations, Rules, and Ordinances	Aggregate Management	M.S. 103 A-I					
		Blue Earth County Code of Ordinances Chapter 24 and Chapter 14	Default to state	Cottonwood County Mining, Extraction, and Excavation Ordinance	Jackson County Development Code Section 730	Martin County Zoning Ordinance	Watowan County Zoning Ordinance
	Agricultural Soil Erosion	Minnesota Soil Erosion Law (Minnesota State Statute - Chapter 103F.401-.455)					
	Bluff Protection	Blue Earth County Code of Ordinances Chapters 14 and 24	Brown County Zoning Ordinance Section 603	N/A	Jackson County Development Code Section 610	Martin County Zoning Ordinance Chapter 13	Watowan County Zoning Ordinance
	Erosion Control	MN Rules Ch 7090					
		Blue Earth County Code of Ordinances Chapter 24, Article IV	Brown County Zoning Ordinance Section 714	Default to state	Jackson County Development Code Section 710	Default to state	Default to state
	Forestland Management	Blue Earth County Code of Ordinances Chapters 24 and 12	Brown County Zoning Ordinances Section 741	N/A	Jackson County Development Code Sections 604 & 709	Martin County Zoning Ordinance Chapter 13	Watowan County Zoning Ordinance Section 10
	Land Use	Blue Earth County Land Use Plan	Brown County Land Use Plan	Cottonwood County Planning and Zoning Office	Jackson County Comprehensive Land Use Plan	Martin County Land Use Plan	Watowan County Zoning Ordinance
	Public Drainage: Establish, Improve, Reroute, Repair, Impoundments, Buffer Compliance	M.S. 103E					
		Default to state	Brown County Drainage System Guidelines	Default to state	Default to state	Martin County Multi-Purpose Drainage Management Plan	Default to state
Stormwater Runoff	MN Rules Ch 7090						
	Blue Earth County Code of Ordinances Chapter 14	Brown County Zoning Ordinance Section 714	Default to state	Jackson County Development Code Subdivision Regulations	Default to state	Watowan County Zoning Ordinance Section 10	
Tile Drainage	N/A	Brown County Drainage System Guidelines	N/A	N/A	N/A	N/A	



