

Shell Rock River Watershed: Water Plans

The Shell Rock River Watershed encompasses Freeborn County. Each county has developed a 10-year rotating comprehensive local water management plan (LWMP) in order to improve water quality within Minnesota. The water plans are comprised of a set of concerns the counties have described as a priority, along with how they intend to effectively manage them.

This document contains two parts: (1) A comparison of management goals from the county (2) A summary of all county water plans in the watershed including priority concerns, goals and objectives, and actions related to nutrient management.

Water Plans:

Freeborn County LWMP 2006-2015 amended 2011

Water Plan Evaluation

Concern	Freeborn
Abandoned Wells	
Conservation BMPs	
Development Concerns	
Drainage Management	
Education	
Erosion Control	
Feedlot Compliance	
Groundwater	
Lake Management Plan	
Manure Management Plan	
Monitoring	
Municipal Wastewater	
Priority Pollutants	
Sediment	
Seek Funding	
Shoreland Management	
SSTS/ISTS	
Stormwater Management	
Surface Water	
Technical/Financial Assistance	
TMDL - Impaired Water	
Water Retention	
Watershed-based Approach	
Wellhead Protection	
Wetlands	



Concerns addressed in County Water Plan associated with nutrient issues

Strong ongoing activities implemented in programs outside of the County Water Plan

Freeborn County LWMP 2006-2015 amended 2011

Priority Concern: Aquifers

Goal: Protect aquifer from contamination by water wells

Objective: Require proper construction, maintenance, and abandonment of water wells

Actions:

- Target the cities of Albert Lea, Alden and Glenville for inventory and mapping of existing water wells to prioritize abandonment policy
- Assist the cities of Albert Lea, Alden and Glenville in applying for Federal and State Funding to assist landowner sealing water well costs
- Seek local cost-share funding for water well sealing Assist Public Water Suppliers with implementing wellhead protection plans

Goal: Protect ground water from depletion and degradation

Actions:

- Support Minnesota Rules Chapter 4725 “Guide to Water Wells and Borings” is followed during construction, maintenance, and abandonment of water wells
- Increase well head protection efforts in land use policy plans
- Promote wise and efficient use of groundwater resources
- Improve citizens/landowners access to local and regional groundwater data
- Collect water quantity and quality data for management decisions
- Sealing abandoned/unused wells
- Develop a water allocation plan to manage drought conditions/water shortages

Priority Concern: Surface Waters

Goal: Stormwater management

Actions:

- Provide assistance to municipalities for the development of stormwater control and treatment plans
- Participate with communities to develop and implement stormwater policies on flood and pollution mitigation plans
- Offer incentives on rain gardens, rain barrels, stormwater wetlands, and water storage pond construction
- Assist in educational events on urban best management practices to reduce run-off

- Identify areas in drainage systems to establish water retention/water infiltration ponds
- Support the use of drained wetland areas for water storage capacity
- Seek funding for surface water gauging stations
- Seek grant opportunities to fund wetland restoration in priority areas

Goal: Address impaired surface waters

Actions:

- Provide technical assistance with outreach, education and demonstration sites to reduce agricultural chemical and nutrient impacts
- Support Aquatic Invasive Species Prevention Programs
- Assist the MPCA in development of “Total Maximum Daily Load” TMDL by major watershed for priority pollutants (fishes bioassessments, turbidity, ammonia (un-ionized), pH, fecal coliform, nutrient/eutrophication biological indicators)
- Provide technical assistance throughout the TMDL study and implementation study. Freeborn County will share water quality/quantity data collected for use in identifying impaired waters.
- Seek local, state, and federal grant funding to protect surface waters
- Participate in low interest loan, cost share, and incentive programs for “Best Management Practice” implementation
- Develop plans to address subwatershed level impacts to reduce pollutants causing impairments, as part of an approved implementation plan.
- Continue support of citizen stream monitoring, citizen lake monitoring, and citizen precipitation monitoring programs
- Facilitate effective water resource management through education and public outreach (newsletters, articles, radio, county fair booth)
- Participate with MPCA on the Watershed Restoration and Protection (WRAP) Program starting in the following years: Le Sueur River Watershed 2008, Cedar/Shell Rock River Watershed 2009, Cannon River Watershed 2011, Winnebago River Watershed 2013, Blue Earth River Watershed 2017
- Coordinate with the Shell Rock River Watershed and Turtle Creek Watershed Districts efforts on remediating water quality through a comprehensive strategy on watershed management.
- Coordinate Agriculture Water Management Issues and Conservation Drainage Issues
- Designate a Lakes Management Subcommittee to participate with Department of Natural Resources and Ducks Unlimited in the development of management plans on Bear Lake and State Line Lake
- Continue systematic redetermination of benefits for ditch systems
- Implement consistent buffer initiatives according to current drainage law

Goal: Protect surface water and ground water from ISTS

Objective: Follow MPCA approved design, construction and operation of SSTS

Actions:

- Follow MPCA Water Quality Division SSTS, Chapter 7080 thru 7083
- Seek licensing of all SSTS Designers, Installers, Pumpers and Septage Haulers that perform work in county
- Provide education to landowners on properly installed and functioning SSTS
- Apply for state and local cost-share funds for SSTS Installations

Goal: Enhance protection of surface and ground water resources from subsurface sewage system treatment systems

Actions:

- Continue compliance with Minnesota Rules 7080 through 7083
- Provide County level FTE licensed and certified SSTS inspectors
- Develop an individual parcel county-wide compliance inspection program
- Provide continuing education to local SSTS professions and landowners
- Apply for state and local cost share programs to assist municipalities and income eligible landowners with waste water collection and treatment construction costs

Priority Concern: Topsoil

Goal: Protect and preserve topsoil

Actions:

- Educate landowners on soil erosion practices
- Participate in (Ag BMP) MDA Best Management Loan Program
- Implement Minnesota Construction site erosion and sediment control planning
- Support enrollment of highly erodible lands into Federal Conservation Reserve Program (CRP), Reinvest in Minnesota Program (RIM), Environmental Quality Incentives Program (EQIP)

Goal: Control soil erosion

Actions:

- Preserve and protect top soil
- Promote conservation programs that reduce soil erosion
- Pursue grant opportunities for incentive funding of controlled tile drainage systems on ag fields
- Provide public education for the protection of sensitive lands
- Participate in demonstrations of effective conservation tillage methods
- Support wind erosion conservation practices (tree plantings, seeding of erosion area)
- Educate landowners on TMDL permit efforts to reduce sedimentation of creeks, ditches, and lakes.

- Enhance the promotion of buffer strips, filter strips, grassed waterways, and sediment control basins.
- Support the use of “Precision Agricultural Technologies” (PCT) and cover crops where appropriate.
- Engage local partners (NRCS, Conservation Groups, Lake Associations) to foster new relationships on conservation approaches.

Priority Concern: Wetlands

Goal: Preserve existing wetlands

Actions:

- Participate in Wetland Preservation Program (WPA)
- Freeborn County, acting as local governing unit for implementation of the Wetland Conservation Act will continue to follow US Corps of Engineers, DNR, BWSR Wetland Regulations
- Apply for state funding and assistance from MDA and DNR to control invasive species infestations on public and private wetlands Complete wetlands inventory and prioritization for protection planning
- Work to establish Federal, State and Local funding partnerships for wetland restoration land purchase.
- Develop and implement a 5 year wetland preservation education action plan

Priority Concern: Feedlots

Goal: Protect surface water and ground water resources from feedlot/animal waste contamination

Actions:

- Enforce Minnesota Rules Chapter 7020 – MPCA Feedlot Permit Program Standards.
- Continue to provide education to feedlot owners/operators on best management of animal waste.
- Pursue Federal and State Funding to mitigate or eliminate pollution from feedlots and animal manure.

Goal: Management of Animal Manure for land applications

Actions:

- Follow Minnesota Rules 7020 for animal feedlot, manure storage, and land application of liquid and solid waste products.
- Provide manure management workshops
- Require and provide construction inspections of new feedlot facilities

- Provide manure management plan review every four years with all producers
- Provide opportunities and incentives to owner/operators for planning and training of feedlot operations
- Continue to provide MPCA/Freeborn County Feedlot Officers and permitting process
- Utilize GPS for mapping of feedlot sites and identification of environmentally sensitive areas to control manure application
- Require soil sampling of manure application acres for nutrient analysis
- Host/participate in field demonstrations plots, new equipment displays, and calibration of injectors/spreaders
- Assist MPCA, MDA, U of M, and MN Extension Offices on grazing of lands and nutrient management plans
- Utilize GIS/GPS Technologies in developing Manure Management, Nutrient Management, Pasture Management, and Rotational Grazing Plans.
- Encourage involvement in the Livestock Environmental Quality Assurance (LEQA) Program
- Consider development of local Agricultural Advisory Committee for livestock producers
- Provide technical assistance with implementation of Best Management Practices to reduce impacts of manure land applications

Priority Concern: Municipal wastewater

Goal: Protect surface water and ground water from municipal wastewater contamination

Actions:

- Provide assistance to municipalities to construct and maintain wastewater treatment facilities
- Apply for federal/state/local funding for wastewater treatment facilities
- Seek priority placement on MPCA Wastewater Infrastructure Fund (WIF) for nonconforming wastewater treatment facilities

Priority Concern: Stormwater Drainage

Goal: Protect surface waters from stormwater drainage of sediment, nutrients, and chemicals

Actions:

- Maintain or improve existing ditch system
- Require vegetative buffer strips along public ditches upon redetermination
- Encourage landowners of private ditches to establish and maintain vegetative buffer strips
- Educate landowners on land treatment options and available cost-share programs to minimize transport of sediment
- Identify ditches that contribute excess sediment into surface waters
- Measure surface water flows and analyze water for nutrient/chemical/sediment loading
- Follow MPCA TMDL recommendations for remediation of waters

Priority Concern: Watersheds

Goal: Manage watersheds to reduce bacteria, nutrients, chemicals, and sediments from entering surface waters

Actions:

- Develop and education presentation on point and non-point pollution sources
- Apply for federal/state/local funding for Land BMPs
- Require erosion and sediment control plan on construction sites (requirement in building permit)
- Assist municipalities on stormwater management issues

Goal: Manage watersheds to control surface water run-off

Actions:

- Require post-land development surface water run-off rates not exceed pre-land development run-off rates
- Preserve flood plain areas
- Continue to participate in DNR Floodplain Management – MN Chapter 103.F
- Apply for federal/state/local funds for construction of riparian buffers
- Continue participation in MN Department of Agriculture Best Management Loan Program
- Prioritize drained wetlands for use as water holding basins and restore wetland use
- Continue participation in volunteer citizen precipitation gauge monitoring program

Priority Concern: Shorelands

Goal: Protect and preserve existing shorelands

Actions:

- Follow MN DNR Standards for Management of Shoreland Areas – M.S. 6120
- Provide educational opportunities on shoreland protection
- Work to preserve existing natural riparian vegetation or re-establish it

Goal: Protect shoreland areas

Actions:

- Identify shoreland erosion sites and prioritize run-off sites for remediation
- Promote best management practices to reduce erosion and sedimentation on shoreland areas
- Promote vegetative buffers along shoreland areas
- Require animal grazing management practices to limit erosion potentials

- Pursue aquatic management areas
- Follow MN DNR Public Waters permitting and local shoreland ordinance practices (M.S. 6120)
- Require construction site erosion control standards
- Provide building contractor educational opportunities on erosion control practices
- Provide landowner information on sediment and erosion control practices
- Support DNR Lake Management Plans
- Support up-grades to public access areas on Freeborn, Bear, Pickerel, Upper Twin, Lower Twin, Geneva, Fountain, Albert Lea, Goose, and State Line Lakes in Freeborn County
- Preserve, enhance, and protect natural shoreland resources of all water bodies for wildlife habitat