

Le Sueur River Watershed: Water Plans

The Le Sueur River Watershed encompasses Blue Earth, Faribault, Freeborn, Le Sueur, Steele, and Waseca Counties. 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 for each 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:

Blue Earth County LWMP 2008-2015

Faribault County LWMP 2007-2016

Freeborn County LWMP 2006-2015



Le Sueur County LWMP 2011-2015

Steele County LWMP 2007-2016

Waseca County LWMP 2009-2016

Water Plan Evaluation

Concern	Blue Earth	Faribault	Freeborn	Waseca	Le Sueur	Steele
Education						
Feedlot Compliance						
Groundwater						
Monitoring						
Priority Pollutants						
Shoreland Management						
SSTS/ISTS						
Stormwater Management						
Technical/Financial Assistance						
TMDL - Impaired Water						
Wetlands						
Conservation BMPs						
Erosion Control						
Sediment						
Municipal Wastewater						
Seek Funding						
Abandoned Wells						
Surface Water						
Drainage Management						
Watershed-based Approach						
Development Concerns						
Manure Management Plan						
Wellhead Protection						
Coordination/Partnership						
Lake Management Plan						
Water Retention						
Nutrient Management						
Nonpoint Source Pollution						

-  Concerns addressed in County Water Plan associated with nutrient issues
-  Strong ongoing activities implemented in programs outside of the County Water Plan

Blue Earth County Local Water Management Plan (2008-2013)

Priority Concern: Groundwater

Goal: Protect groundwater resources from potential contaminants from residential, commercial and industrial land uses, well construction, abandoned wells and septic systems

Goal: Protect, enhance and restore groundwater recharge areas

Objective: Continue the Well Program.

Actions:

- Blue Earth County will permit and inspect construction of new domestic wells and sealing of unused and abandoned wells and sealing of unused and abandoned wells.
- The County will continue to fund the well sealing cost share program with at least \$9,000 annually.

Objective: Increase local government's awareness of the potential for groundwater contamination susceptibility in Blue Earth County.

Actions:

- The County will work with Township officials providing data and information related to groundwater contamination susceptibility and groundwater protection methods, including zoning, with a special focus on Lime Township and Mankato Township because of their unique position having local zoning authority and their location in areas with high susceptibility to groundwater contamination.
- The County will provide data and information related to groundwater contamination susceptibility and groundwater protection strategies to local government officials, including municipalities.

Objective: The County will assist local government units with preparation of source water protection plans.

Action:

- The County will assist all local government units and the MDH with preparing source water protection plans as requested by participating in planning teams and providing available data and information including maps and aerial photos and County well index data.

Objective: The County will incorporate groundwater protection measures in land use planning and regulations.

Actions:

- The County will address groundwater protection and land use in the update of the County Comprehensive Land Use Plan.
- The County will address groundwater protection measures in land use policy at the local level with special attention to business use and storage of potentially hazardous chemicals and materials and subsurface wastewater treatment and disposal.

Objective: The County will assist local government units with preparation of source water protection plans.

Actions:

- The County will assist all local government units and the MDH with preparing source water protection plans as requested by participating in planning teams and providing available data and information including maps and aerial photos and County well index data.

Priority Concern: Surface Water

Goal: Reduce pollutants causing water quality impairments of surface water in watershed within and affected by land in Blue Earth County

Objective: Support development of TMDL Implementation Plans.

Actions:

- Work cooperatively on a watershed basis to identify and prioritize implementation activities.
- At the request of the MPCA or other TMDL sponsors and within the constraints of local staff time and resources, participate in preparation of TMDL studies and implementation plans.

Objective: Implement soil and water conservation and other practices identified in TMDL implementation plans.

Actions:

- Work with agricultural land owners/operators to establish best management practices to achieve TMDL implementation goals as practicable considering availability of local staff and project resources.
- Seek funding for a County-based staff person at the SWCD to work with land owners/operators in all impaired waters and TMDL Implementation Plan priority areas to establish soil and water conservation practices known to address multiple pollutants causing impairments.

- Work with nonpoint sources identified in TMDLs to increase awareness of water quality problems, change behavior and establish best management practices where appropriate and practicable considering availability of local staff and project resources.

Objective: Increase participation in the MPCA Citizen Stream Monitoring Program.

Actions:

- Promote Citizen Stream Monitoring in SWCD and County newsletters, website, and other information sources.

Goal: Protect and improve water quality with implementation of livestock management programs, policies and best practices to prevent and minimize pollution from livestock manure

Objective: Work with all feedlot operators to improve manure management planning.

Actions:

- The County will meet with 100 percent of feedlot operators and crop consultants to improve manure management planning.
- The County Feedlot Officer will enhance review of manure management fields and field/site specific discussion of sensitive areas and requirements (groundwater contamination maps, bedrock, slope, soils, floodplains, ditches, surface water features, two foot contour maps, property boundaries, aerial photos, and other information).
- The County will develop a program to provide County/SWCD web site access to local information about sensitive areas and requirements (groundwater contamination maps, bedrock, slope, soils, floodplains, ditches, surface water feature, two foot contour maps, property boundaries, aerial photos and other information).
- The County and SWCD will enhance its general, feedlot education program by providing information about applying manure in sensitive areas such as surface water and shallow soil over bedrock for distribution and display at the SWCD/NRCS office.
- The SWCD, County and other organizations will participate in local demonstrations, field days and workshops as appropriate and report the results in newsletters and other communications.

Objective: Improve manure management in areas with high susceptibility to groundwater contamination due to shallow depth of soil to bedrock.

Actions:

- Identify feedlots in areas with high susceptibility for groundwater contamination and shallow depth to bedrock.

- Work with the Lime Township Board, feedlot operators and horse owners in Lime Township by providing information related to improving site management and manure management and identifying small sites with potential problems.
- Provide site specific information and other resources to feedlot operators in areas with shallow depth to bedrock.
- Provide technical assistance to horse and livestock owners to reduce the potential for groundwater contamination from manure.
- Assess the need for and availability of financial assistance to horse owners to improve manure management.

Objective: Reduce runoff from agricultural fields.

Action:

- Establish buffer strips, terraces and grass waterways to protect surface waters from runoff from agricultural fields.

Objective: Reduce manure runoff problems from livestock feedlots and smaller sites.

Actions:

- Provide technical assistance to operators of feedlots with open lot agreements to correct pollution problems by 2011, the State feedlot program compliance deadline.
- Provide technical assistance to feedlot operators and owners of small sites to address pollution problems.

Goal: Reduce and prevent pollution from agricultural land by establishing conservation practices that minimize runoff, soil erosion and sedimentation and other pollutants

Objective: Reduce the amount of farmed, highly erodible land adjacent to public waters and ditches by establishing a buffer strip or a cover of perennial vegetation adjacent to all public waters in the County. Increase BMPs on farmed, highly erodible and potentially highly erodible land.

Actions:

- The County, SWCD, and other local implementation partners will identify marginal, highly erodible farmland adjacent to public waters and drainage systems and highly erodible and potentially erodible farm land.
- Identify and prioritize areas to work based on appropriate financial incentives, easements, and regulations, special projects, studies, TMDLs, and local plans related to objective.
- Work with relevant implementation partners to promote conservation practices in priority areas.
- Contact and work with landowners and land occupier to establish conservation practices to achieve objective.

- Establish soil and water conservation practices to reduce runoff, soil erosion, and sedimentation.

Objective: Bi-annually review and evaluate data and information available for targeting BMPs and other implantation efforts.

Action:

- Regularly hold Water Management Plan meetings with local implementation partners to identify, assess, evaluate and prioritize current project needs, information and future implementation strategies.

Objective: Seek available funding for at least one SWCD staff position to work in all priority areas coordinating and promoting BMPs as described in the WMP 2008-2013m watershed and other relevant plans.

Actions:

- Develop description of project and staff needs based on annual SWCD plans and other plans.
- Add a full-time SWCD Technician/Coordinator to:
 - Work with land owners/operators in areas with high priority erosion problems coordinating and promoting proven soil and water conservation practices with targeted efforts such as personal contacts, tours and other activities.
 - Work with conservation partners promoting and coordinating the establishment of buffer and filter strips on County ditches, tile intakes and other waterways with an emphasis on County ditches. Increase the total miles of drainage ditch buffer strips on County ditches in Blue Earth County by 50 percent.
 - Work with land owners/operators in all impaired waters and TMDL Implementation Plan priority areas to establish soil and water conservation practices known to address multiple pollutants causing impairments.

Objective: Increase public awareness of soil and water conservation issues, problems with education and information.

Actions:

- Develop posters and other informational pieces related to soil erosion and other factors used to prioritize local project implementation and funding for display at the County SWCD, NRCS and other related offices.
- Provide access to aerial photos, maps, topography, soils and other information on the County and SWCD web sites.
- Promote best management practices in newsletters, web sites, press releases and brochures distributed by the County and SWCD annually.

Objective: Seek stable funding for at least one SWCD staff position to work in all priority areas coordinating and promoting best management practices as described in the Water Management Plan 2008-2013, watershed and other relevant plans.

Actions:

- Develop description of project and staff needs based on annual SWCD plans and other plans.
- Drainage Section: Add a full-time SWCD Technician/BMP Coordinator to work at the SWCD working with conservation partners promoting and coordinating the establishment of buffer and filter strips on County ditches, tile intakes and other waterways with an emphasis on County ditches.
- TMDL Section: Seek funding for a County-based staff person at the SWCD to work with land owners/operators in all impaired waters and TMDL Implementation Plan priority areas to establish soil and water conservation practices known to address multiple pollutants causing impairments.
- Wetlands and Wildlife Section: Add a full-time SWCD Technician/BMP Coordinator from 2009-2013 at the SWCD working with conservation partners promoting and coordinating the establishment of water retention and wetlands.

Goal: Protect and improve water quality by promoting and establishing stormwater management practices that reduce the rate and volume of stormwater runoff, erosion and use of pesticides and fertilizers

Objective: Encourage municipalities and Townships to review and revise stormwater zoning and subdivision ordinances to protect water resources.

Actions:

- Work with City staff, engineers and consultants to provide each City with general information about urban stormwater runoff impacts.
- Work with the City staff, engineers, consultants, NEMO, DNR and others as appropriate to provide each City with model ordinances to address development and stormwater impacts.
- Assess the need and seek funding for consultant services to review and rewrite local ordinances, if needed.
- Work with Mankato Township and Lime Township to provide each with general information about urban stormwater runoff impacts and model ordinances to address stormwater impacts.

Objective: Reduce erosion at existing urban stormwater outlet structures.

Actions:

- Work with City staff, engineers, SWCD and the County Ditch Manager to inventory and evaluate stormwater outlets to determine where erosion problems exist.

- Identify short-term and long-range solutions to stormwater runoff problems and construct structures, retention areas and other conservation practices where needed.
- Work with City staff and SWCD to seek funding for Action 2 if needed.

Objective: Reduce erosion from construction sites.

Actions:

- Provide general information about MPCA NPDES permit rules to municipalities (not Mankato) and Mankato Township staff.
- Provide general information about MPCA NPDES permit rules along with construction permits issued by the County.
- Work with staff of municipalities, MPCA stormwater staff and others to assess compliance and educational needs related to State NPDES permit requirements.
- The City of Mankato will continue implementation of its Stormwater Pollution Prevention Plan, partnering with the County and local municipalities for education and other activities when appropriate.

Objective: City and County park systems will continue to develop and redevelop shoreland areas providing public access, reducing runoff, and protecting stream banks and shoreland.

Actions:

- The County Parks Department will continue to utilize and promote best management practices, such as rain gardens and use of native vegetation, in all County parks, as appropriate.
- The County will continue to work with lake associations, local conservation organizations, the DNR and other State agencies to stabilize shoreland areas in County Parks where needed and as funding is available.
- The City of Mankato will continue to redevelop waterfront areas, trails and parkways along the Minnesota River, Blue Earth River, Indian Creek, and Thompson Creek to improve water quality and provide education and access to the river for residents and visitors where appropriate and as funding is available.

Objective: Protect sensitive lake shoreland areas from development.

Actions:

- Assess the shoreland and riparian areas of all lakes, especially those with greatest likelihood of development such as Madison, Duck, Ballantyne, George, Eagle, Lura, Crystal, Loon, and Mills Lakes, to provide a baseline and general information for the County Planning Commission and the affected municipalities.
- Address shoreline protection in the County's Comprehensive Land Use Plan and amend County land use regulations to protect shoreland areas from development impacts.

Objective: Promote homeowner BMPs to reduce pesticides, fertilizer and other pollutants generated by lawn, garage and home care.

Actions:

- Work with city staff to provide data and information and sample educational materials, flyers, posters, etc.
- Include BMP's in County and SWCD newsletters, web sites and other outreach activities.

Priority Concern: County Drainage Ditches

Goal: Improve water quality with implementation of mutually-beneficial actions addressing both environmental concerns and drainage of land

Goal: Improve water quality by establishing ditch buffer strips and water retention in areas where environmental concerns and drainage needs are both addressed

Objective: Encourage voluntary establishment of ditch buffer strips on County ditches with education and information activities promoting the benefits of ditch buffers and the availability of financial incentives.

Actions:

- The SWCD will provide a list of conservation funding opportunities to the Ditch Authority annually in order for the Ditch Authority to be fully aware of locally available incentives.
- The County and SWCD will increase communications providing information about water quality related benefits of ditch buffers and financial incentives available for establishing new ditch buffers.
- The County Ditch Authority and other County Departments will work together to provide information in general newsletters and the County website. The County Ditch Authority will develop written communications, such as letters and newsletters to ditch system owners when appropriate to special projects.

Objective: Increase the total miles of drainage ditch buffer strips on County ditches in Blue Earth County by 50 percent by December 31st, 2012. In order to achieve County goals for this objective, financial resources will be needed for additional staff, landowner incentives and acquisition costs.

Actions:

- Establish baseline data for this objective to consistently measure success over time, by using County data reported to BWSR to determine the total miles of ditch buffers in the County.
- Add a full-time SWCD Technician/BMP Coordinator from 2009-2012 to work at the SWCD working with conservation partners promoting and coordinating the establishment of buffer and filter strips on County ditches, tile intakes and other waterways with an emphasis on County ditches.

- Work with implementation partners to develop a reasonable, implementation goal and work plan annually for this objective assuming the addition of full time staff and financial incentives to coordinate bmp programs with a special emphasis on ditch buffers.
- Seek funding to provide financial incentives to establish ditch buffer strips on pre-identified County ditches.

Objective: Increase water retention and wetland restoration in County ditch drainage systems by 30 percent.

Actions:

- Seek funding to expand the engineering and environmental review assessment for ditch improvement and repair projects to study flooding characteristics and downstream impacts during small, frequent storm events as well as 5,10, 25, 50 year flood events; water storage and retention practices; and water quality effects.
- Establish baseline data for this objective to consistently measure success over time.
- Seek funding to provide financial incentives to establish water retention areas.
- Work with local conservation groups and State and Federal agencies to seek funding and restore and enhance wildlife habitat in priority areas.
- Add a full-time SWCD Technician/BMP Coordinator from 2009-2013 at the SWCD working with conservation partners promoting and coordinating the establishment of water retention and wetlands.
- Work with implementation partners to develop a reasonable, implementation goal and work plan annually for this objective assuming the addition of full time staff and financial incentives to coordinate BMP programs with a special emphasis on ditch buffers and water retention.

Objective: Identify, assess and prioritize County ditch systems and areas within County ditch systems for retention, wider ditch buffers and other strategies to improve surface and groundwater quality and wildlife habitat.

Actions:

- Work with local committees and workgroups with broad representatives of multiple interests similar to those formed for the Water Management Plan and Greenprint to develop criteria and methods for prioritizing program implementation. Representatives of ditch owners, wildlife conservation, rural residents, water quality and others will be involved. County GIS tools will be used to support the process.
- Priority areas will be assessed based on methods and criteria developed by committees and workgroups for program implementation as well as available resources, regulations and other requirements. The County and SWCD will work together to identify representatives and frequency of program planning and evaluation as needed.

- Identify and assess opportunities to reduce impacts from municipal storm water discharges with best management practices, including water retention, wetland restoration, buffer strips, grassed waterways, and other erosion control practices.
- Identify native plants best suited for ditch buffer plantings, assess and prioritize locations for native plants in conjunction with wildlife and other priority areas.

Priority Concern: Wetlands and Wildlife

Goal: Maximize opportunities to protect, enhance and restore wetlands and other natural areas to improve surface and groundwater quality, fisheries, wildlife habitat, recreation and land conservation

Objective: Continue to administer the Wetland Conservation Act (WCA).

Action:

- Continue to administer the WCA, including TEP and with the DNR on WCA enforcement.

Objective: Continue to identify, assess and prioritize high priority areas for protection, enhancement and restoration of wetlands and wildlife habitat.

Actions:

- Continue to work with DNR Fisheries, DNR Wildlife staff and US Fish and Wildlife Service to identify, assess and prioritize specific areas important for wetland habitat, lake shore habitat, and other conservation practices.
- Work with local wildlife conservation organizations to identify, assess and prioritize specific areas important for wetland habitat, lake shore habitat, and other conservation practices.
- Continue to work with representatives of broad interests and stakeholders to identify, assess and prioritize wetland, lake shore habitat and other conservation areas.
- Evaluate the need for a Comprehensive Wetland Management Plan and ordinance in all or parts of Blue Earth County.

Objective: Encourage wetland and wildlife protection and other conservation strategies in park, open space, transportation, stormwater and land use plans.

Actions:

- Work with municipalities and townships in conjunction with stormwater implementation objectives and other planning projects to identify areas for wetland protection and enhancement within, adjacent and near the city limits.
- Continue to work with the County Public Works and Parks in conjunction with other planning projects to incorporate natural resources in transportation and park and open space plans.

Objective: Identify and incorporate groundwater recharge areas in wetland and other conservation plans.

Action:

- As described in the Groundwater Section of the Water Management Plan, the County views protection of groundwater a very high priority. Additional data is needed to identify, assess and prioritize groundwater recharge areas to target wetland protection and restorations.

Priority Concern: Ground and Surface Waters

Goal: Prevent and reduce ground and surface water pollution from wastewater with administration of local programs intended to improve subsurface wastewater treatment and reduce wastewater discharges to surface waters

Objective: Continue to manage decentralized wastewater treatment with the County SSTS program.

Actions:

- Maintain and update the County Ordinance consistent with State Statutes.
- Issue permits, conduct inspections and maintain records for SSTS in Blue Earth County.

Objective: Reduce the number of dwellings defined as imminent public health threats by 50 percent.

Actions:

- Update and analyze all available data to reasonably estimate the number of imminent public health threats and determine a baseline to evaluate future results related to this goal.
- Assess the need for financial incentives, including low interest loans, to accelerate the percentage of compliant SSTS.
- Evaluate overall compliance levels every one to three years and adjust education and other program components accordingly to meet objective.

Objective: Evaluate septage management systems, including disposal, storage and land application.

Actions:

- Identify the septage management systems of each contractor in the County.
- Work with pumpers, contractors, municipalities and other representatives to assess needs related to septage management in Blue Earth County.

Objective: Increase compliance with SSTS maintenance requirements

Actions:

- Determine the level of compliance with State regulated maintenance requirements.

- Work with haulers, property owner representatives and others to identify and address education, disposal and other needs related to septic system maintenance issues.

Goal: Reduce the overall generation, disposal and potential pollution of ground and surface water from household hazardous waste, pesticides, and problem materials

Objective: Increase public awareness of responsible use of hazardous substances and disposal of wastes and problem materials.

Actions:

- Identify opportunities to expand and enhance education efforts to target audiences, including the SWCD, NRCS, County and other local partners.
- Incorporate general information related to responsible use of hazardous substances and disposal of wastes and problem materials in County and NRCS/SWCD newsletters and other public places.

Objective: Ensure continued agricultural waste pesticide disposal opportunities in Blue Earth County.

Action:

- Work with MDA to continue operating agricultural waste pesticide disposal sites in Blue Earth County.

Objective: Ensure continued mercury product recycling opportunities in Blue Earth County.

Action:

- Work with MPCA and Xcel Energy to continue mercury product recycling opportunities.

Faribault County Local Water Management Plan (2007-2016)

Priority Concern: Water Quality Concerns

Goal: Address impaired surface waters within Faribault County

Objective: Work towards the delisting of existing impaired waters to restore streams to their designated uses.

Actions:

- Participate in TMDL plan development and implementation.
- Provide technical assistance throughout TMDL study.
- Assist in TMDL efforts within Blue Earth and Le Sueur watershed.
- Determine sources of impairment and practices to address.

Objective: Attempt to reduce the extent of impairments in surface waters by considering water quality and quantity impacts.

Actions:

- Market available programs to landowners.
- Partner with municipalities and Drainage Authority.
- Target subwatersheds to develop plans.
- Utilize GIS to inventory watersheds and target areas.

Objective: Gain a better understanding of surface water quality in Faribault County.

Actions:

- Continue to support CSMP and CLMP.
- Recruit additional volunteers for impaired reaches.
- Develop yearly CSMP newsletter.
- Develop baseline data and determine trend information.
- Encourage new water testing stations.
- Submit water testing data through STORET database.

Goal: Protect groundwater based drinking water sources within Faribault County

Objective: Acknowledge and support public water supply wellhead protection areas within the county.

Actions:

- Encourage development of wellhead protection plans.

- Provide aid in efforts to locate wells.
- Encourage addressing private wells within wellhead area.
- Assist in developing maps outlining the radius of concern.
- Consider wellhead protection areas in land use decisions.
- Utilize source water assessment information from the MDH.

Objective: Encourage private well protection from contamination sources.

Actions:

- Educate on proper setbacks from private wells to potential contamination sources.
- Follow well code requirements for well construction.
- Encourage homeowners to get private well tests routinely.

Objective: Encourage the proper sealing of unused or abandoned wells.

Actions:

- Inventory potential location of abandoned wells.
- Prioritize sealing of abandoned wells.
- Utilize cost-share programs for sealing costs.
- Explore providing a token fund for well sealing.
- Explore utilizing county loan program for well sealing.
- Develop and distribute education materials.

Goal: Lake water quality improvement through improved lake watershed protection and management

Objective: Assess developmental pressures on Faribault County lakes.

Actions:

- Explore developmental pressures on lakes and consider changes to shoreline and landscape; revise and update county zoning and land use ordinances in regard to lakeshore development pressures (setback requirements, vegetated buffers, stormwater management, etc.).
- Revise or establish a new zoning district to address sensitive areas around lakes.
- Encourage new homeowners or developers to plan wisely.
- Educate homeowners on impacts of development.

Objective: Encourage the development of Lake Management Plans.

Actions:

- Prioritize county lakes by classification and need for protection.
- Assess water quality and land use conditions on county lakes.

- Address developmental pressures and wildlife needs for priority lakes.
- Examine lakes from watershed perspective, including drainage inputs.
- Use current and new information to update lake watershed delineations.

Objective: Work towards improved and enhanced land conservation in lake watersheds.

Actions:

- Educate homeowners on establishing and maintaining a vegetated buffer between lawn and lake.
- Educate on other BMPs and strategies for lake protection.
- Minimize impact of stormwater runoff to lakes.
- Look into storing water within the watershed of a lake.
- Explore restoration of prairie grasses for water storage.
- Encourage maintaining shallow water lakes with emergent vegetation for improving water quality.
- Seek additional funding for lake watershed management projects.

Goal: Manage new and existing onsite wastewater treatment system including unincorporated areas of Faribault County

Objective: Maintain onsite sewage treatment system programs to protect surface and groundwater quality.

Actions:

- Continue the installation of ISTS throughout the Faribault County 12 Year Septic Plan and beyond the plan.
- Continue inspection of new onsite systems to ensure design and siting criteria are applied appropriately.

Objective: Establish and implement a management program to ensure that existing onsite wastewater treatment systems are operated and maintained properly to prevent the impairment or degradation of surface and groundwaters.

Actions:

- Keep an updated system inventory that provides management information (type of system, location, capacity, installation date, owner, date of last inspection, and pumping record information).
- Periodic inspections of existing onsite systems.
- Notify homeowners that every 3 years pumping is required to keep system in compliance.
- Ensure residuals pumped from tank are properly disposed, and not affecting surface or ground waters.

- Training programs for system designers, installers, pumpers, and inspectors in Faribault County.
- Publicize “Guide to Rural Living” brochure on SWCD website.

Goal: Assist with management of new and existing community industrial wastewater treatment systems

Objective: Cooperate and partner with incorporated and unincorporated communities and industries on achieving wastewater goals.

Actions:

- Educate on the basics of wastewater.
- Help communities upgrade households and businesses without access to the Cities municipal treatment plant.
- Continue toward upgrading unincorporated, unsewered communities in Faribault County.
- Provide technical assistance and support to communities with inadequate sewage collection and treatment.

Goal: Identify and control sources of non-point source pollution

Objective: Assess sources of non-point source pollution in Faribault County.

Actions:

- Determine, on a watershed scale, the nature, cause, and effect of non-point source pollution.
- Find solutions on watershed scale.
- Apply for funding or programs addressing non-point pollution sources.
- Establish a schedule for implementing measures necessary by watershed.
- Target non-point sources of pollution that are not being addressed by other local or state plans.

Objective: Promote education and outreach efforts for implementing non-point source pollution controls.

Actions:

- Implement education programs on the nature of non-point source pollution, sources and how citizens can plan an important role by practicing conservation and changing everyday habits.
- Effective use of BMPs.
- Improve information and education to local officials.

Priority Concern: Stormwater Management Concerns

Goal: Encourage Faribault County communities to develop and implement comprehensive stormwater policies and plans for flood and pollution control purposes

Objective: Assist and encourage non-regulated communities to develop Stormwater Management Plans.

Actions:

- Provide information to communities on methods to reduce the effects of stormwater runoff.
- Encourage the development of model Stormwater Management Plans that could be easily adopted or modified by small communities. Include information in plans on drainage, basic best management practice information (street sweeping, catch basin cleaning, leaf litter management, salt application, snow removal storage, ponds, filter strips, infiltration, etc.), and plans for future improvements.
- Provide education and training opportunities for implementation and management of stormwater best management practices.
- Assist communities to utilize existing or pursue additional funding for the implementation of urban best management practices.

Objective: Monitor and encourage new development to meet the requirements of the Phase II Stormwater Program for Construction Activity.

Actions:

- Assist in the planning phases of holding Phase II Stormwater Program workshops for local officials and contractors.
- Encourage communities to ensure that Phase II construction stormwater permits have been obtained, if necessary, prior to issuing a building permit.
- Encourage communities to incorporate the Phase II construction stormwater permit as an item to a building permit checklist.
- Pursue additional resources to provide technical and financial assistance to communities to assist officials, developers, and contractors in fulfilling Phase II Stormwater Program requirements.

Objective: Encourage communities to promote or provide incentives for homeowners to implement best management practices at the lot size level.

Actions:

- Encourage or offer incentives to residents to direct rooftop runoff to pervious areas, such as yards, open channels or vegetated areas, and avoid routing rooftop runoff to the roadway and the storm water conveyance system.

- Encourage or offer incentives to homeowners for on-lot infiltration practices, including reduced lot grading, rain gardens, or rain barrels, which control runoff at its source.
- Pursue funding sources for the establishment of urban best management practices.
- Pursue funding for technical assistance to work one on one with homeowners.
- Encourage cities to identify stormwater control measures that could be taken on lots smaller than one acre in sensitive areas through the building permit process.
- Assist in educating homeowners on the proper handling and disposal of hazardous waste.
- Provide educational opportunities on urban best management practices and their benefit through workshops, press releases, community education classes, and the County Fair.

Objective: Encourage communities to utilize low impact development strategies.

Actions:

- Advocate open space development that incorporates smaller lot sizes to minimize total impervious area, reduce total construction costs, conserve natural areas, provide community recreational space and promote watershed protection.
- Encourage the addition of low impact development measures to local city and county regulation and ordinances.
- Encourage “common plan of development or sale” to occur prior to the start of development. This planning includes one proposed plan for a contiguous area where multiple separate disturbing activities will be taking place at different times, but under one plan.
- Provide education opportunities to local officials, developers, and contractors on low impact development.

Objective: Attempt to preserve existing natural drainage ways and natural vegetation on new sites.

Reduce runoff from impervious surfaces.

Actions:

- Encourage communities to integrate stormwater management into site design.
- Maintain existing and new stormwater holding ponds for maximum treatment benefit.
- Encourage the utilization of stormwater management practices including retention, such as wet ponds and storage ponds, infiltration, such as rain gardens and infiltration basins, and stormwater wetlands.

Goal: Utilize and gain and understanding of urban storm control and flood damage reduction practices.

Objective: Gain an understanding of how county drainage systems react as a stormwater outlet.

Actions:

- Encourage communities to develop, or continue, a working relationship with the County Drainage Authority.
- Identify areas within drainage systems to establish water retention upstream of communities to lessen the volume and velocity of drainage coming into the city.
- Utilize retention methods within cities to improve the quality and decrease the volume and velocity of drainage downstream from the community.
- Provide opportunities for city and county officials to explore and understand the drainage law and its relevance to stormwater.
- Utilize drained wetlands and explore additional alternatives for water storage.
- Encourage the County Drainage Authority and city officials to annually review urban stormwater outlets.

Objective: Encourage communities to promote or provide incentives for homeowners and business to implement infiltration practices.

Actions:

- Encourage cities to continue efforts to disconnect sump pumps and footing tile from the sanitary sewer system and offer alternatives to homeowners.
- Explore impacts of the additional volume of water on the storm sewer system as residents disconnect from the sanitary sewer and re-route runoff onto impervious surfaces.
- Encourage or offer incentives to residents to direct rooftop runoff to pervious areas, such as yards, open channels or vegetated areas, and avoid routing rooftop runoff to the roadway and the storm water conveyance system.
- Encourage or offer incentives to homeowners for on-lot infiltration practices, including reduced lot grading, rain gardens, or rain barrels, which control runoff at its source.

Priority Concern: Drainage Management Concerns

Goal: Improve drainage water management practices and systems that will enhance crop production, conserve water, and reduce adverse offsite water quality and quantity impacts.

Objective: Encourage the County Drainage Authority to develop and adopt a countywide drainage system policy.

Actions:

- Maintain and update the current mapping and data management process for public drainage systems within Faribault County.
- Utilize existing and new GIS data as a “pre-petition” decision making tool.

- Establish a schedule for repair and maintenance of systems.
- Develop a redetermination schedule for all public drainage systems.
- Continue efforts of the county drainage committee.

Objective: Encourage the County Drainage Authority to utilize a sustainable and economical approach when assessing public drainage systems.

Actions:

- Consider environmental and economic benefits and concerns of the system.
- Prioritize drainage systems on the subwatershed drainage level.
- Prioritize drainage systems that currently impact an impaired water body.
- Identify and pursue funding to financially support technical assistance for drainage system management.
- Encourage the county drainage authority to partner with other agencies for project support and funding.
- Provide educational opportunities to county drainage authority, staff, and affected landowners.
- Pursue additional education efforts and resources on controlled drainage systems.

Objective: Inventory and manage public drainage systems at the watershed scale.

Actions:

- Inventory drainage systems including ditches having filter strips, potential wetland restoration locations, and potential sites for controlled drainage and cover crops.
- Identify areas of drainage systems that are overloaded as high priority for the creation of water storage areas.
- Identify areas of infrastructure failure and flooding.
- Continue to utilize the county's tile camera to assess system conditions.
- Manage systems at a watershed scale when repairs, maintenance or improvements are being considered.
- Identify areas of concern within systems, and potential solutions that aim at water storage, pollutant trapping, and reduced maintenance.
- Promote the installation and maintenance of buffers on drainage systems and surface tile inlets.
- Continue to promote and pursue funding for alternatives to surface tile inlets where they would be most beneficial.

Goal: Utilize and gain an understanding of rural storm control and flood damage reduction practices.

Objective: Explore the incorporation of structures for the management of surface and subsurface drains (controlled drainage systems).

Actions:

- Pursue educational opportunities for local officials and landowners, including demonstration sites, on controlled drainage.
- Partner with the Greater Blue Earth River Basin Alliance and other agencies on efforts to pursue funding to explore controlled drainage.

Objective: Gain a better understanding of how out of county drainage impacts the water quality and quantity of Faribault County.

Actions:

- Maintain an up to date inventory of drainage systems with out of county inputs through the current mapping and data management program.
- Encourage drainage related issues be included in adjacent county Water Management Plans.
- Encourage neighboring counties to notify Faribault County and communities of projects with water quality and quantity impacts.
- Continue to pursue drainage related projects with the Greater Blue Earth River Basin Alliance and other watershed organizations.
- Encourage opportunities to work with County Supervisors and other local officials and agencies in Iowa.

Objective: Enhance existing and create new wetland or water retention areas for the benefits of flood reduction, infiltration, reduction of sedimentation, erosion control, nutrient reduction, sustaining biodiversity, and wildlife habitat.

Actions:

- Utilize existing and pursue new programs and funding mechanisms for the establishment of water storage or wetland restorations in high priority areas.
- Explore the possibility of county drainage systems bearing the expense of projects for its own benefit, therefore not relying on grant funding and other entities.
- Utilize current and new GIS data to determine potential wetland restoration sites.
- Utilize drainage watershed management plans for public drainage systems to target areas with the most benefit to a system.

Priority Concern: Erosion Concerns

Goal: Reduce and minimize the effects of soil erosion and sedimentation

Objective: Promote and market conservation programs and best management practices (BMP's) that reduce soil erosion and sedimentation in regard to water erosion.

Actions:

- Pursue additional cost-share and incentive funding for the establishment of BMP's on working lands.

- Pursue funding, generate interest, and work with public drainage systems on long term easement programs for marginal Ag land.
- Actively promote and demonstrate conservation tillage methods that are cost effective and environmentally friendly.
- Continue and accelerate technical assistance to landowners for planning and implementing BMPs, including structural practices, fencing, alternative intakes, waterways, etc.
- Map and identify areas throughout the county, according to slope, that should be targeted for implementation of BMP's, and alternative cropping systems.
- Develop and provide public outreach efforts to educate on the importance of targeting and protecting critical areas in regard to slope and distance from water bodies.
- Provide opportunities that could facilitate a change in mindset and behavior by engaging township officials, absentee landowners, and women landowners not actively involved in agriculture.
- Assist in new and ongoing TMDL efforts within the Blue Earth and Le Sueur Watersheds.

Objective: Promote and market conservation programs and best management practices (BMP's) that reduce soil erosion and sedimentation in regard to wind erosion.

Actions:

- Promote the implementation of tree plantings and grass seeding in critical erosion prone areas.
- Promote conservation practices with a priority given to wind erosion reduction through RUSLE II.
- Actively promote and demonstrate conservation tillage methods that are cost effective and environmentally friendly.

Goal: Reduce bank erosion to protect the quality of our water resources.

Objective: Promote implementation practices and education programs that focus on streambank protection.

Actions:

- Utilize GIS to identify high priority areas prone to streambank sloughing.
- Pursue additional funding for the implementation of buffer strips & other easement programs.
- Encourage changes in grazing management practices such as fencing or buffers that allow streams to recover.
- Target sites and install structural practices that meter out the volume of water entering systems.
- Because of cost factors, target high priority areas and pursue funding for streambank stabilization practices.

- Determine and implement measures that could potentially reduce the volume of water in our streams.
- Promote upland management and policies in both urban and rural settings, including wetland restorations, water storage, and infiltration practices.
- Promote programs such as the “River Friendly Farmer” program to highlight farmers utilizing good production management practices that keep waterbodies clean.

Objective: Promote implementation practices and education programs that focus on ditchbank protection.

Actions:

- Encourage the County Drainage Authority to develop public ditch buffer recommendations.
- Encourage the re-enrollment of expiring CRP and other buffer program acreages.
- Explore the possibility of compensating or providing incentives to landowners that establish buffers through the public drainage system.
- Encourage metering of water or holding areas within a drainage watershed through showcasing existing county projects, such as Judicial Ditch 10.
- Explore funding opportunities to incorporate measures for protecting ditch banks.
- Demonstrate how conservation practices, such as buffers and retention projects, can be cost effective for a drainage system.

Objective: Educate and promote programs to landowners with land adjacent to private drainage systems. Promote implementation practices and education programs that focus on lakeshore protection.

Actions:

- Add information for homeowners on lakeshore development within the Faribault County “Guide to Rural Living”.
- Identify new development through the building permit process, and provide homeowners with information on appropriate practices and strategies for lakeshore protection.
- Encourage a natural vegetated buffer, low impact development, and minimizing storm water runoff to lakes.
- Explore the possibility of revising or updating county comprehensive plans or ordinances to include lakeshore protection measures.

Goal: Minimize the effects of construction site erosion

Objective: Construction site erosion control techniques.

Actions:

- Develop standard for all development plans.
- Provide opportunities on erosion and sediment control.

- Include Phase II permit on county building permit.
- Include erosion control techniques on website.
- Distribute erosion control techniques through permit processes.

Priority Concern: Agriculture Concerns

Goal: Proper management and understanding of animal agriculture

Objective: Provide assistance to producers to reduce water quality concerns related to animal agriculture.

Actions:

- Provide technical and financial assistance, if available, to assist producers in adopting BMP's to reduce the impacts of manure runoff.
- Seek additional funding to mitigate or eliminate pollution from feedlots and animal manure.
- Promote existing funding sources such as EQIP, cost share, and AgBMP loan dollars.
- Utilize Grazing Management to reduce the physical disturbance and direct loading of animal waste and sediment caused by livestock.
- Provide outreach and education to livestock producers that are currently under the threshold of needing a feedlot permit.
- Provide outreach and education to new owners of new or existing feedlot sites, and absentee landowners.
- Reach new owners of sites with a fact sheet through the building permit process, "Guide to Rural Living" website, and through FSA.
- Encourage producer groups and agencies to provide training opportunities for producers on new technologies available.
- Utilize GIS to identify environmentally sensitive areas near construction sites of feedlot facilities.
- Involve livestock producers and producer organizations with the Blue Earth Basin Fecal Coliform TMDL.

Objective: Provide and promote education on the benefits of animal agriculture.

Actions:

- Encourage livestock producers, Ag and producer groups to educate the non- livestock producers on the benefits of animal agriculture.
- Encourage continued discussions and education on new sitings of feedlots.
- Encourage new and existing livestock producers to practice "good neighbor" policies.

Goal: Work with livestock producers on the benefits of manure management planning

Objective: Encourage the development and updating of manure management plans.

Actions:

- Promote the economic benefit of manure management planning.
- Ensure feedlots with 300 to 1,000 AU have developed and are utilizing a current manure management plan.
- Increase efforts on feedlots less than 300 AU not required under current statute to have a manure management plan.
- Review plans with producers through site visits every four years.
- Seek additional resources to accomplish planning efforts.
- Provide opportunities and incentives to operators for preparing plans, and promote existing programs such as EQIP.
- Utilize the MPCA and University of Minnesota - Extension planning software as a tool for operators.
- Explore holding workshops for producers utilizing school computer labs.
- Partner with MPCA to distribute and provide training for their newly developed program on manure management planning for smaller sites.

Objective: Provide education on proper setbacks from sensitive areas.

Actions:

- Utilize GIS to identify environmentally sensitive areas for manure application.
- Educate producers on existing setbacks from sensitive areas, including open tile intakes, wetlands, drainage ditches, steeply sloping land, and road ditches.
- Incorporate and encourage vegetated buffers in regard to runoff.

Objective: Encourage the proper crediting of manure nutrients.

Actions:

- Provide education on correct application rates, soil testing, and grid sampling.
- Support the utilization of manure as a valuable resource.
- Educate producers on utilizing manure better and the incentives of selling manure if there is not enough capacity.
- Encourage producer groups or agencies to hold field days on demonstration plots and calibration of equipment.
- Promote and provide education on the University of Minnesota guidelines, which vary by soil type, yield, manure application, etc.
- Work with FSA to incorporate education opportunities through newsletters.
- Encourage producers to get records written down and documented.

Goal: Promote wise use of nutrients for optimum economic benefit to the producer while minimizing impacts on the environment

Objective: Provide education and information on proper application rates.

Actions:

- Work with Ag suppliers and producers on following the University of Minnesota application rates, which sometimes differ from agronomist rates in plans.
- Develop test plots and organize a field day to review results and promote proper nutrient management.
- Promote EQIP, CWP, and other grant incentives for producers entering a nutrient management contract.
- Incorporate information on U of M rates within FSA newsletters and radio broadcasts.
- Educate those writing plans on rates eligible for programs.
- Explore the possibility of holding classes or workshops for Ag suppliers.
- Encourage soil sampling to utilize as base data.

Freeborn County Local Water Management Plan (2006-2015)

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 education of MDH Water Well Construction Standards, well sealing procedures and groundwater protection.
- 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 groundwater 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: Shoreland

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: Provide recreation opportunities on public waters

Actions:

- Support Department of Natural Resources Lake Management Plans.
- Work to up-grade public access onto Twin Lakes, Pickerel Lake, Bear Lake, State Line Lake, Geneva Lake, and Freeborn Lake.
- Assist in development of local lake management plans.
- Apply for federal/state/local funding for lake management implementation.
- Protect/preserve/promote wildlife habitat.
- Seek installation and operation of rough fish barriers on State Line Lake, Freeborn Lake, Fountain Lake, Albert Lea Lake, Twin Lakes, White Lake, Pickerel Lake, Geneva Lake and Bear Lake.

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.

Le Sueur County Local Water Management Plan (2011-2015)

Priority Concern: Impaired Waters/Total Maximum Daily Loads (TMDLs)

Goal: Protect, restore and improve surface water quality in lakes, rivers and streams

Objective: Work with the Minnesota Pollution Control Agency (MPCA), Lake Associations, neighboring counties, and other state and federal agencies on TMDL process with the development of TMDL Implementation Plans that address impairments according to the MPCA schedule by 2015.

Actions:

- Determine annually, the local impairments from 303(d) list and the timeline of the State to address these impairments.
- Develop TMDL Implementation Plans by coordinating and/or participating in meetings and providing input.

Objective: Implement TMDL Implementation Plans by year 2015.

Actions:

- Incorporate TMDL implementation actions into local plans.
- Implement TMDL Plans.

Objective: Collect useful scientific water quality data on area lakes, streams, rivers and wetlands within Middle Minnesota River Watershed when funding is available.

Actions:

- Locate funding sources to assess surface water in the Middle Minnesota River Water Watershed.
- Implement the monitoring project which includes entering data into the state reporting program.

Priority Concern: Wastewater Treatment

Goal: All septic systems in Le Sueur County brought into compliance

Objective: Strengthen and improve individual septic tank system (ISTS) local program by December 2015.

Actions:

- Conduct a septic system inventory. Enter data into Seplog and ArcMap using GPS as a mapping tool.
- Update septic system inventory on a regular basis.
- Develop plan to hire a full time Septic Program staff person.

Objective: Increase the number of ISTS upgrades to bring systems into compliance by 20% annually.

Actions:

- Continue the countywide revolving loan program for septic upgrades.
- Develop incentive payment program for septic upgrades.
- Locate grant-funding sources for incentive payment program for septic upgrades
- Implement program for septic upgrades.
- Educate landowners about nonconforming septic systems and the relationship between these systems and water quality through news releases, workshops, brochures and mailings.
- Promote local ISTS/SSTS programs that offer education, financial assistance and alternative system research.
- Work with Lake Associations and municipalities on sewer options.

Priority Concern: Stormwater Management

Goal: Minimize impacts from runoff of development areas and agricultural land that alter surface water hydrology

Objective: Increase the number of water retention structures and practices on the landscape by 30% annually by 2015.

Actions:

- Actively promote programs that provide financial assistance to install water retention BMPs. See watershed implementation plans for priority projects.
- Locate funding sources to bring the 50% cost share programs up to 75%.

Objective: Increase the number of wetland restoration contracts in the county by 20% annually by 2015.

Actions:

- Promote wetland restorations and programs in areas that will address surface water peak flow.
- Locate funding sources for incentive for wetland restorations.
- Maintain GIS coverage of wetland restoration.

Objective: Increase the number of municipal and shoreland water retention structures and practices on the landscape by 30% by 2015.

Actions:

- Create an inventory of municipal stormwater systems and locate areas that flood.
- Actively promote programs that provide financial assistance to install water retention BMPs.
- Locate funding sources that offers 75% cost share.
- Implement the rain garden/native plantings Cost Share Project by installing up to 20 shoreland BMP projects.

Goal: Diminished runoff issues cause by urban and development runoff

Objective: Promote sound hydrologic stormwater management to reduce runoff to 11 municipalities and developers and unincorporated areas by 2015.

Action:

- Provide information to all municipalities, their residents and to developers in Le Sueur County on Best Storm Water Management practices through letters, news releases, and workshops.

Objective: Promote stormwater management to municipalities and all residents to reduce pollutants from reaching surface water annually by 2015.

Actions:

- Provide information to all municipalities, their residents and to developers in Le Sueur County on Best Stormwater Management practices through letters, posters, news releases, and workshops.
- Develop two workshop projects and locate funding for workshops on stormwater management.

Priority Concern: Protection of Undeveloped Shoreline

Goal: Achieved no net loss of existing natural shoreline

Objective: Respond to 100% shoreland regulation inquiries annually.

Actions:

- Respond to all shoreland regulation inquiries and ensure proper restitution if violations occur.
- Provide information and assistance to landowners and lake associations for the development and implementation of shoreline restoration plans and projects.
- Review other county ordinances that have high number of lakes.

- Review local shoreland ordinance and revise if necessary.

Goal: Achieved a new natural shoreline gain through shoreline restorations

Objective: Complete up to 40 shoreland improvement projects by 2015.

Actions:

- Educate shoreland owners on shoreland BMPs and the need to restore shoreline to a more natural state through news releases, workshops, representation to organizations. Ag shoreland buffers are included in this.
- Locate funding for Lake Shoreland Restoration Projects and implement shoreland restoration projects.
- Promote shoreland protection through green space planning, Natural Resources Inventory, educational programs and research efforts through publications, presentation, workshop efforts of federal, state and local agencies.

Priority Concern: Drinking Water Protection

Goal: Protect groundwater quality and quantity

Objective: Educate the public on proper construction, maintenance, protection and abandonment of wells and conservation of groundwater through two news releases and/or presentations annually.

Action:

- Inform the public on the importance of well construction, maintenance, protection and abandonment and water conservation annually through various media sources.

Objective: Coordinate water-testing clinic for up to 200 county residents with wells that include nitrate and arsenic by 2015.

Actions:

- Locate funding for a water testing clinic that includes nitrate and arsenic testing throughout the county.
- Organize and implement the water testing clinics, provide information to residents on arsenic and nitrate at the clinics.
- Compile collected information and enter into GIS mapping program.
- Provide outreach on arsenic following the testing clinic to disseminate information on arsenic in water supplies.

Objective: Gather information about groundwater quantities and interconnection to surface water by 2015.

Actions:

- Continue to monitor existing observation wells through the DNR OBWELL Program.
- Identify major groundwater usage within the county through appropriation permits.
- Work with state agencies on stream flow data and interpretation to determine relationship to groundwater recharge.
- Investigate methods for obtaining a Class V Injection Well Inventory within groundwater management zones in wellhead protection areas.
- Maintain and improve GIS files to assist Le Sueur County with water management efforts and decision making.
- Investigate water quality monitoring sites that are in the vicinity of landfills.

Priority Concern: Agricultural Drainage Management

Goal: Maintain drainage systems while sustaining agricultural productivity as well as improving artificial drainage water quality, understanding the system is part of a larger tributary system

Objective: Apply watershed base principles to drainage system management.

Actions:

- Ensure that public drainage systems are operated and maintained in accordance with the State Drainage Law (M.S. Chapter 103D) and other applicable regulations.
- Support drainage research and local demonstration projects that improve water quality.
- Work with County Ditch Authority, the County Highway Department and MNDOT on drainage outlets that drain directly to lakes and rivers that need repair.
- Modernization of ditch records.
- Educate the public about drainage issues, drainage options to improve water quality, and the request if redetermination of benefits.
- Promote programs that provide financial and technical assistance to install BMPs along drainage systems that will improve water quality.

Priority Concern: Minimize Environmental Risks of Agricultural Impacts to Water Resources

Goal: Reduced water quality issues from agricultural impacts to water resources

Objective: Secure funding for surface water protection and improvement projects on a watershed basis by 2015.

Actions:

- Prioritize watersheds, carry out project development for watershed improvement projects, locate funding, implement project.
- Work with Met Council, Scott and Rice Counties on a Sand Creek Watershed implementation project (lower Minnesota River watershed).
- Promote Federal, State and local cost share and financial assistance programs for conservation projects to agricultural producers.
- Locate funding sources to enhance 50% cost share programs to 75% cost share in priority watersheds.
- Provide cost share funds through grant funded projects for installation of conservation practices.

Objective: Provide education on nutrient management to residents by 2015.

Actions:

- Support Minnesota Extension Service Nutrient Management Projects through assisting with locating funds to provide incentive for following MES guidelines.
- Address manure management issues through the county feedlot program in assessed priority watershed and countywide.

Steele County Local Water Management Plan (2007-2016)

Priority Concern: Soil, Fertilizers and Pesticides from Agricultural Fields Flowing into Surface Waters

Goal: Protect surface waters from sedimentation and agricultural field pollutant runoff

Objective: Develop and administer a Soil Erosion Ordinance.

Actions:

- Work with the SWCD office on the development of a soil erosion ordinance.
- Work with farmers to implement and enforce the soil erosion ordinance program to achieve acceptable soil loss.

Objective: Participate in the farm program policymaking process.

Actions:

- Work with federal legislators on developing environmentally and economically sustainable farm program policies.

Objective: Educate the public on best management practices to control soil erosion.

Actions:

- Provide education to landowners on best management practices for controlling erosion.
- Develop and implement a 5 year marketing/education plan to inform landowners of BMPs for controlling erosion.
- Develop and implement a 5 year action plan for increasing riparian buffer and filter strip enrollment through Continuous CRP, CREP and other programs.

Objective: Seek funding sources for soil erosion control and filter strip projects.

Actions:

- Apply for Clean Water Fund grants and other federal and state funding to create new erosion control projects or to enhance existing programs.

Objective: Promote Ag BMP's for pesticide and fertilizer use and conservation drainage practices.

Actions:

- Promote Best Management Practices for pesticide and fertilizer use under MDA and EQIP guidelines.
- Develop and implement a BMP training program for dealers, crop consultants, agronomists, and pesticide users.
- Encourage the use of conservation drainage practices and designs during repairs and improvements of existing drainage systems.

Objective: Participate in the farm program policymaking process.

Actions:

- Work with federal legislators on developing environmentally and economically sustainable farm program policies.

Objective: Develop strategies to minimize soil erosion and sedimentation.

Actions:

- Work with the SWCD office on the development of a soil erosion ordinance.
- Work with farmers to implement and enforce the soil erosion ordinance program to reduce erosion to T (tolerable soil loss).
- Run scenarios on GSSHA (Gridded Surface Subsurface Hydrologic Analysis) to understand the effectiveness of different BMPs in reducing turbidity and flow in the Straight River watershed and where to apply BMPs to reduce turbidity.
- Implement recommended BMPs from GSSHA modeling and engage and incentivize landowners to implement BMPs in areas identified by GSSHA modeling.
- Implement in-channel BMPs to protect streambanks and stabilize grades to prevent streambank erosion and sedimentation.
- Administer and enforce official controls that require buffers on public waters and public ditches.

Priority Concern: Sewage from Rural Septic Systems into Surface Waters

Goal: To protect ground and surface water resources from rural wastewater contamination

Objective: To educate the public on the proper use and maintenance of individual sewage treatment systems.

Action:

- Conduct sewage treatment workshops and distribute ISTS information to homeowners.

Objective: To eliminate direct discharges of sewage to ground and surface water by identifying and repairing or replacing nonconforming sewage treatment/disposal systems.

Actions:

- Identify imminent public health threat (ITPHS) systems by comparing a list of all developed properties with the existing list of sewage treatment system permit records/installations in Steele County.
- Develop and implement a strategic plan to bring nonconforming ISTS into compliance through publicity, enforcement, and financial incentives.
- Provide planning and technical assistance for small communities with inadequate wastewater treatment in the county.
- Provide financial assistance to homeowners to replace nonconforming systems through the Clean Water Partnership (CWP) loan program, AgBMP loan program, and other funding sources.

Priority Concern: Urban Stormwater Runoff

Goal: To protect surface water resources from pollutants in urban stormwater runoff

Objective: Provide public education about stormwater management.

Action:

- Implement stormwater education as required for Owatonna under the MS4 permit.

Objective: Administer and enforce stormwater runoff controls during construction activities.

Actions:

- Require all NPDES plans be implemented as part of local permits for construction sites and other areas without permanent vegetative cover.
- Inspect sites or require self-certification of stormwater control implementation during and after construction.

Objective: Develop storm water runoff management and quality standards to use in local ordinances and plans.

Actions:

- Administer and Enforce the City of Owatonna Stormwater Ordinance that was adopted in 2008.
- Update existing stormwater management standards as needed for development projects in Steele County in an effort to minimize the impact that post development runoff will have on water resources.

Objective: Provide public education about stormwater management.

Actions:

- Implement stormwater education as required for Owatonna under the MS4 permit.

Objective: Provide water quality treatment and volume control of urban stormwater runoff through the use of stormwater ponds and detention basins.

Actions:

- Complete a detailed inventory of all existing stormwater ponds.
- Maintain and improve all existing stormwater ponds. Retrofit existing ponds for additional stormwater treatment and retention.

Objective: To work towards complying with TMDL waste load allocations for turbidity and bacteria in the Straight River and Maple Creek.

Actions:

- Develop educational materials for the public and elected officials about the concerns and importance of TMDL requirements.
- Install structural best management practices that encourage detention, infiltration, and volume reduction of stormwater prior to discharge to impaired waters.

Priority Concern: Animal Feedlot Manure Runoff into Surface Waters

Goal: To protect surface water resources from open lot runoff and surface applied manure from animal feedlots

Objective: Address open lot feedlot manure runoff problems.

Actions:

- Provide technical and financial assistance to open lot owners to make improvements that reduce runoff.

Objective: Minimize the impact that surface applied manure from animal feedlots will have on surface water quality.

Actions:

- Work with local agronomists and agronomy centers to ensure that manure is included in the overall farm nutrient management plan.
- Provide information and education about manure management BMP's and modern equipment technology to producers who apply their own feedlot manure.

- Provide financial assistance to producers and commercial applicators for manure application equipment and manure storage facilities.

Waseca County Local Water Management Plan (2009-2018)

Priority Concern: Reduction Priority Pollutants

Goal: Protect and improve the quality of water resources throughout the county

Objective: Identify non-compliant septic systems.

Actions:

- SSTS Program. Continue to locally administer the County's SSTS Program, requiring inspections for new construction and prior to property transfers.
- SSTS Maintenance. Provide educational assistance to homeowners on proper SSTS maintenance, compliance, and suggested inspection frequency.
- Noncompliant SSTSs. Provide educational and financial assistance, as available, to homeowners to upgrade noncompliant SSTS's.

Objective: Properly manage pollution caused by feedlots and industry.

Actions:

- Feedlot Program. Continue to locally administer the County's Feedlot Program to assist feedlot operators in obtaining and maintaining compliance with State regulations, developing manure management plans, and using proper land application techniques.

Objective: Work towards getting all of Waseca County's waters off the TMDL 303(d) list of impaired waters.

Actions:

- TMDL Studies. Cooperatively work with partners to coordinate the preparation of TMDL studies and implementation plans for impaired waters. The County's Water Plan Coordinator shall take an active role in representing Waseca County.
- In-Lake Management. Conduct or provide technical and financial assistance, as available, to partners for the implementation of in-lake management efforts, such as aeration and alum treatment, to improve the quality of water resources, when appropriate.

Objective: Reduce erosion and sediment loading of surface water resources.

Action:

- Erodible Land. Target highly erodible land for enrollment in conservation easement programs, such as CRP and RIM.

Objective: Properly manage storm water runoff.

Actions:

- Stormwater Management Plans. Participate in the development and implementation of stormwater water management plans for cities and rural areas with stormwater-related issues.

Objective: Properly manage stormwater runoff.

Actions:

- TMDL Studies. Cooperatively work with partners to coordinate the preparation of TMDL studies and implementation plans for impaired waters. The County's Water Plan Coordinator shall take an active role in representing Waseca County.
- Erodible Land. Target highly erodible land for enrollment in conservation easement programs, such as CRP and RIM.
- Stormwater Management Plans. Participate in the development and implementation of stormwater water management plans for cities and rural areas with stormwater-related issues.
- In-Lake Management. Conduct or provide technical and financial assistance, as available, to partners for the implementation of in-lake management efforts, such as aeration and alum treatment, to improve the quality of water resources, when appropriate.
- Feedlot Program. Continue to locally administer the County's Feedlot Program to assist feedlot operators in obtaining and maintaining compliance with State regulations, developing manure management plans, and using proper land application techniques.
- SSTS Program. Continue to locally administer the County's SSTS Program, requiring inspections for new construction and prior to property transfers.
- SSTS Maintenance. Provide educational assistance to homeowners on proper SSTS maintenance, compliance, and suggested inspection frequency.
- Noncompliant SSTSs. Provide educational and financial assistance, as available, to homeowners to upgrade noncompliant SSTSs.

Priority Concern: Drainage and Wetland Management

Goal: Maintain and enhance the County's drainage system and wetland resources

Objective: Properly manage the County's drainage system.

Actions:

- Public Drainage Systems. Ensure that public drainage systems are operated and maintained in accordance with the State Drainage Law (M.S. Chapter 103E) and other applicable regulations.

- Pursue money to complete a Drainage Management Study which would inventory, map, and identify win-win projects to improve the County's drainage system and to modernize the County's drainage records.
- Alternative Drainage Practices. Provide educational, technical, and financial assistance, as available, to landowners and contractors for the demonstration of alternative drainage practices, such as blind intakes, that replace open tile intakes, as applicable. Install two demonstration sites.
- Land Use Controls. Continue to implement the County's adopted land use controls, including the feedlot, floodplain, SSTS, and shoreland programs.
- Erosion and Stormwater Management Ordinance. Explore the development of an erosion and stormwater management ordinance.
- Drainage Buffers. Work towards establishing buffers on all drainage systems.

Objective: Preserve and restore wetlands.

Actions:

- Buffer Standards. Develop buffer standards for land use near wetlands.

Priority Concern: Natural Corridors and Shoreland Management

Goal: Protect and enhance the County's shoreland and natural corridors

Objective: Develop and implement reasonable strategies to protect and enhance shorelands.

Actions:

- BMP Program. Provide educational, technical, and financial assistance, as available, to landowners for the implementation of water quality-related BMPs, such as stormwater retention practices, lakescaping, and vegetative buffer strips. Consider establishing a new Riparian Buffer Education Program.

Objective: Develop and implement reasonable strategies to protect and enhance natural corridors.

Actions:

- Local Ordinances. Protect natural shorelands and scenic corridors by adopting local initiatives. Examine adopting the DNR's new shoreland management standards.

Priority Concern: Public Education

Goal: Increase Awareness of key water planning issues

Objective: Expand the public's knowledge and understanding of important water issues and resources.

Actions:

- NPDES Stormwater Permit Requirements. Provide educational assistance to landowners and contractors on NPDES stormwater permit requirements for construction activity.
- BMP Program. Provide educational, technical and financial assistance, as available, to landowners for the implementation of groundwater protection BMPs, including the proper decommissioning of wells and storage tanks and correct application of pesticides and other chemicals. Continue Ag BMP funding.
- Wellhead Protection. Participate in the preparation and implementation of wellhead protection plans for public water suppliers.
- Public Meetings. Hold public meetings, as necessary, to keep the public informed of current water resource-related issues.
- Have the Water Plan Task Force meet annually or more as needed.