

**COMPREHENSIVE LOCAL  
WATER  
MANAGEMENT PLAN UPDATE  
*CASS COUNTY, MINNESOTA***

**January 2009 – January 2014**

**FOR INFORMATION CONTACT:**

**Brent Rud, Water Plan Coordinator  
Cass County Environmental Services  
PO Box 3000  
Walker, MN 56484  
(218) 547-7253  
[Brent.rud@co.cass.mn.us](mailto:Brent.rud@co.cass.mn.us)**

## TABLE OF CONTENTS

<b>TABLE OF CONTENTS</b>	<b>2</b>
<b>EXECUTIVE SUMMARY</b>	<b>3</b>
<b>INTRODUCTION</b>	<b>3</b>
<b>PURPOSE</b>	<b>4</b>
<b>PRIORITY CONCERNS</b>	<b>4</b>
<b>ASSESSMENT OF PRIORITY CONCERNS</b>	<b>4</b>
<b>DIFFERENCES FROM PREVIOUS PLAN</b>	<b>5</b>
<b>ACCOMPLISHMENTS OF PREVIOUS PLAN</b>	<b>5</b>
<b>ACTION PLAN</b>	<b>7</b>
<b>A. GROUND-WATER QUALITY GOAL</b>	<b>7</b>
<b>B. GROUND-WATER QUANTITY GOAL</b>	<b>8</b>
<b>C. SURFACE WATER QUALITY GOAL</b>	<b>9</b>
<b>D. SURFACE WATER QUANTITY GOAL</b>	<b>10</b>
<b>E. WETLAND PROTECTION GOAL</b>	<b>11</b>
<b>F. EDUCATION AND INFORMATION GOAL</b>	<b>12</b>
<b>G. WATERSHED MANAGEMENT GOAL</b>	<b>12</b>
<b>H. DATA MANAGEMENT GOAL</b>	<b>13</b>
<b>I. REGULATORY GOAL</b>	<b>14</b>
<b>J. PLAN ADMINISTRATION GOAL</b>	<b>15</b>
<b>ACTION PLAN TIMELINE</b>	<b>17</b>
<b>ACTION PLAN TIMELINE</b>	<b>18</b>
<b>ACTION PLAN TIMELINE</b>	<b>19</b>
<b>EVALUATION METHOD AND INTERVAL</b>	<b>19</b>
<b>ACRONYMS</b>	<b>19</b>
<b>IMPLEMENTATION COSTS</b>	<b>20</b>
<b>RECOMMENDATIONS</b>	<b>20</b>

# EXECUTIVE SUMMARY

## INTRODUCTION

Cass County is pleased to present our fourth generation Comprehensive Local Water Management Plan. This plan is a five-year action strategy designed to achieve County water resource and management goals. This plan is one of four components of a revised Cass County Comprehensive Plan, also including a private land use plan, public land use plan, and public infrastructure plan. First integrated in 2002 these components affords a clear understanding of overall county involvement and strategies, and places the full force of the county, supporting agencies, and groups behind the implementation of its objectives. This plan is in effect in all of Cass County and there are no inconsistencies with any other local, state, or regional plans.

Cass County Environmental Services Department (ESD) is the sole Department charged with writing and implementing this plan. ESD includes planning and zoning administration, subsurface sewage treatment systems (SSTS) regulation, solid waste administration, Soil and Water Conservation District, and other duties as directed by the County Board. The County ordinances regulating these areas are generally written by ESD, adopted by the County Board, and implemented by ESD under the direction of the County Comprehensive Plan and the Local Water Management Plan. The focus of ESD is; land use permit application review, shoreland alteration permit application review, variance application technical review, conditional use permit technical review, SSTS permit application review, plat reviews, stormwater management, shoreline buffer restorations, education and consultation with citizens and industry professionals, enforcement, and every day customer service.

We continue to recognize that our greatest asset is our immense and varied natural resource base. We also recognize that these high quality resources provide a unique opportunity for development and growth. We must place the highest priority on maintaining and preserving the unique environment of the County by tempering growth through wise management. To date there is only one identified impaired water (Lake Margaret) in Cass County. The local water management plan is mainly written as a protection strategy for maintaining the quality of our natural resources. Cass County is currently working towards a complete protection strategy for our surface waters beginning with the 17-lakes LCCMR-funded DNR Sensitive Area Study and the BWSR-funded Enhanced Water Planning Large Lake Water Quality Trend Assessment Project. There are many additional projects that could benefit our understanding of how to better protect our natural resources. We will find funding sources to attain the goals in this local water management plan from DNR, MPCA, BWSR, EPA, the Initiative Foundation, Clean Water Legacy, LCCMR, Lessard Outdoor Heritage Council, and any other available source.

## **PURPOSE OF THE LOCAL WATER MANAGEMENT PLAN**

- Identify existing and potential problems and opportunities for the protection, management, and development of water and related land resources
- Preserve the pristine quality of the county's ground and surface waters and, where degradation has occurred, provide for water quality restoration
- Monitor water quality, use, and availability
- Develop objectives and carry out a plan of action to promote sound hydrologic management, effective environmental protection
- Provide coordinated and efficient delivery of environmental services to assure the long term protection of water resources and watersheds

## **PRIORITY CONCERNS**

Cass County ESD has identified three key areas or priority concerns during the development of the Priority Concerns Scoping Document (Appendix 1). How we address those concerns into the future may change from how they were addressed in the past but these are the priority areas that will continue to receive attention in the every day activities of Cass County ESD.

- Groundwater protection
- Surface water protection
- Education

## **ASSESSMENT OF PRIORITY CONCERNS**

During the priority concerns scoping document development and approval process, Cass County received comments from State Agencies. All of those comments related to action items that were already in the action plan or were added to the action plan after receiving those comments.

The groundwater in Cass County is generally considered to be very high quality with some exceptions. There are some known contaminants in the South Cass Lake area that are documented in the St. Regis Superfund papers. The Minnesota Department of Health has analyzed areas for high Nitrogen probabilities and the areas of Cass County with mostly sandy soil generally fall in the category of being highly susceptible to Nitrogen contamination in the groundwater.

The surface water quality of Cass County varies greatly across the county. There is one established TMDL for Lake Margaret in southern Cass County and the rest of the County is generally considered to have good water quality. Cass County ESD is working on a water quality protection strategy project with Crow Wing and Aitkin Counties. This project is funding analysis of all available water quality data for 23 lakes close to and over 1,000 acres in size. This project will analyze trends in water quality and also conduct watershed assessments. The next phase of this water quality protection project

will be to evaluate the need for additional resource protection based on trends identified. We feel that Cass County residents and visitors will experience good water quality well into the future partly due to the abundance of public lands, forested lands, and protected wetlands, as well as additional protective measures in county ordinances such as stormwater controls, erosion controls, and effective wastewater treatment. Cass County ESD, in cooperation with other groups and agencies, will continue to seek out new and innovative ways to effectively protect our surface water quality and ensure that future generations can enjoy the beautiful natural resources that we see present today.

Cass County ESD places great importance on education. The staff in charge of implementing the local water management plan is encouraged to seek out the necessary knowledge through continued professional education. Educating the property owners and industry professionals about protecting our natural resources as a part of implementing the local water management plan is where we place our every day emphasis.

## **DIFFERENCES FROM PREVIOUS PLAN**

After reviewing the 2002 version and the process that took place to gather input into the 2002 version, the Water Plan Committee decided that a complete update was not necessary. The major differences from the previous plan are:

- More emphasis on stormwater management and shoreline buffers
- More sophisticated technology (GIS and computer models) allows better resource assessment
- Increased cooperation between departments, agencies, and supporting groups in plan implementation
- Greater emphasis on information and education
- Greater emphasis on management by major watershed
- Addresses problems and opportunities relating to population growth and greater development density
- Create a committee that would review any proposed changes to water levels or related issues

## **ACCOMPLISHMENTS OF PREVIOUS PLAN**

Water plan implementation was very successful over the past 5 years. The County has enjoyed support of the County Board as well as cooperation between County departments, and local and state agencies. Lake associations, foundations, and citizen organizations have begun to work together and embraced the water plan goals, incorporating key elements into their plans.

The following is a list of accomplishments realized under the 2002-2008 water plan update. They are organized under each major resource goal area:

**GROUND-WATER QUALITY GOAL:** Preserve the quality of the County's ground-water and where degradation has occurred, provide for restoration of ground-water quality.

- Inspected 4126 new or upgraded septic systems
- Organized 6 community drainfield systems-subordinate service districts
- Promoted soil nutrient testing for crop production and lake-adjacent fertilizer application.
- Amended the Cass County Individual Sewage Treatment System Ordinance - 2007 & proposed in 2009
- More oversight of land application of septage
- Inspected approximately 2100 existing septic systems on riparian lots
- County Board has allocated \$20,000 per year from the County Environmental Trust Fund for the inspection of existing septic systems

**GROUND-WATER QUANTITY GOAL:** Monitor and regulate water use to assure adequate ground-water resources.

- Proposed to form a technical committee that will evaluate any water level or water related policies or rules

**SURFACE WATER QUALITY GOAL:** Preserve the quality of Cass County's surface water, and where degradation has occurred, work to restore the surface water quality.

- Supported activities of watershed organizations
- Updated 156 agricultural conservation plans
- Updating wetland functional analysis model to prioritize significant wetlands
- Updating Minnesota's first county wetland ordinance
- Maintained wetland bank account for use by Cass County landowners
- Worked with 35 lake associations to sample water chemistry
- Support volunteer water resource monitoring:
- 5 groundwater monitoring wells (DNR Obwell Program)
- Attended and/or spoke at 50+ lake association meetings
- Spoke at 15 Association of Cass County Lakes Board meetings
- Amended the Cass County Shoreland Ordinance -2002, 2004, 2005, 2006, 2007, 2008
- Amended the Cass County Subdivision Ordinance -2002, 2004, 2006
- Reviewed stormwater plans on all plats, subdivisions and conditional use permits
- Assisted local governments with stormwater and erosion control projects
- Assisted private individuals with stormwater and erosion control projects
- Over \$40,000 in SWCD cost sharing assistance

- Assisted 22 lake associations in developing and implementing lake watershed management plans in cooperation with the Initiative Foundation's Healthy Lakes Program.
- Required property owners to restore their shoreline with native vegetative buffers as a condition of issuance of most conditional use permits and variances
- Established shoreline buffer cost-share and technical assistance program
- Obtained funding for a 3 County Conservation Easement Grant of which 7 easements are in Cass County totaling more than 557 acres and 11,500 feet of shoreline
- Obtained funding for a 3 County Large Lakes Project where water quality data for large lakes are gathered and analyzed to identify trends in water quality and identify areas of concern

**SURFACE WATER QUANTITY GOAL:** Monitor and regulate water use to assure adequate surface water resources.

- Requiring conservation easements for all wetlands within new plats

**PLAN ADMINISTRATION GOAL:** Provide coordinated and efficient delivery of environmental services to assure the long term protection of water resources.

- Maintain a county internet website including environmental information
- Maintain and improved all GIS data onto a data server used by all County departments
- Developing a web-based gis-based data base and online permitting program
- Updated "Welcome to Cass County" environmental directory to be distributed to every new landowner as well as the general public.

## **ACTION PLAN**

This action plan includes the goals and objectives and the implementation program that are required in the Plan.

**A. GROUND-WATER QUALITY GOAL:** Preserve the quality of the County's groundwater and where degradation has occurred, provide for restoration of groundwater quality.

### **Objective 1--Determine the Quality of Cass County's Ground-water Resources**

1. Create a County groundwater-monitoring program. The purpose of this program is to utilize the UMD regional groundwater flow model, well testing results for nitrates and

coliform bacteria, and other monitoring data to discover the quality, extent, and flow direction of our ground-water and learn more about the impacts of human activity on our ground-water.

2. Evaluate the results of studies of contaminants to groundwater.

Lead agency: ESD  
Supporting groups: MPCA, USGS, MDH, UMD  
Priority 2  
Cost Estimate        \$5,000

**Objective 2. Prevent Contamination of Cass County’s Groundwater Resources**

1. Continue enforcement of county subsurface sewage treatment system ordinance provision requiring individual sanitary treatment system evaluation and/or update at the time of property transfers.
2. Develop and implement a systematic program of compliance inspections of SSTS not currently in compliance on a lake-by-lake or area-by-area basis, prioritized on the basis of housing density, soil suitability, and pollution potential. The purpose of this program is to inspect and inventory all of the existing SSTS in Cass County.
3. Use the regional groundwater flow model to implement a wellhead protection program.
4. Promote the implementation of water well abandonment and closure programs.
5. Utilize the regional groundwater flow model to identify possible negative recharge area impacts for new proposed developments or plats.
6. Promote the development and implementation of wellhead protection plans for all public water supplies.

Lead agency: ESD  
Supporting groups: UMD, MDH, MPCA, RWA  
Priority 1  
Cost Estimate        \$125,000/year

<b>B. GROUND-WATER QUANTITY GOAL:</b> Monitor water use to assure adequate ground-water resources.
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## **Objective 1--Determine the Extent of Surficial Aquifers**

1. Utilize the regional groundwater flow model to estimate volumes of groundwater

Lead agency: ESD

Supporting groups: UMD, MDH, MPCA

Priority 3

Cost Estimate        \$3,000/year

**C. SURFACE WATER QUALITY GOAL:**        Preserve the quality of Cass County's surface water, and where degradation has occurred, work to restore the surface water quality.

## **Objective 1--Provide for Protection of All Surface Waters**

1. Work with agencies, developers, and individuals to create and implement stormwater management plans.
2. Work with agencies, developers, lake associations, and individuals to create and implement shoreline revegetation plans.
3. Assist lake associations in their efforts to develop and implement management plans for individual lakes or watersheds.
4. Assess the Itasca County Lake Vulnerability Index for use in Cass County.
5. Work with other agencies to develop lake sustainability and carrying capacity criterion.
6. Develop a sensitive resource protection list for use in determining priorities for conservation easements, acquisitions, and other protection programs as well as land use decisions and establishing development standards. Promote conservation easements, prevention of forest and habitat fragmentation, and other forms of protecting sensitive areas.
7. Set up lakeshore revegetation demonstration sites on all general development lakes.
8. Continue agricultural programs for stream protection.
9. Use major watershed management strategies for water quality protection.
10. Develop a priority list of areas needing collective septic drainfields and implement an installation program.

11. Assist Agencies, Lake Associations, and other local units of government with the response to any identified impaired waters.
12. Assess trends in water quality in lakes over 1,000 acres.
13. Promote and assist with other research projects that will further enable Cass County to provide for better protection of our surface water resources.
14. Develop and promote conservation development design standards.

Lead agency: ESD

Supporting groups: SWCD, MES, DNR, MPCA, LLB, USACE, USFS  
MHB, NRCS, ACCL, BWSR, TCELLWP, PRWPF

Priority 1

Cost Estimate \$20,000/year

### **Objective 2--Monitor and Manage Recreational Uses to Protect Water Resources**

1. Assist in monitoring of lakes for exotic species such as Eurasian water milfoil, spiny waterfleas, zebra mussels, and rusty crayfish and also for fish diseases such as VHS..
2. Support the implementation of fishery habitat management plans.

Lead agency: ESD

Supporting groups: DNR, SWCD, TCELLWP, PRWPF, ACCL, individual lake associations

Priority 2

Cost Estimate \$3,000/year

**D. SURFACE WATER QUANTITY GOAL:** Monitor water use to assure adequate surface water resources.

### **Objective 1--Monitor the Existing Volume and Flow of Surface Water**

1. Use current studies to help develop water budget modeling for watersheds.
2. Evaluate possible impacts of droughts on natural and economic resources.
3. Support maintaining current water levels and lobby against unnecessary drawdowns of reservoirs and exportation of all surface waters.

4. Establish a committee or task force of hydrology or related professionals in the region to make recommendations to any regional issues related to water quantity.

Lead agency: ESD

Supporting groups agency: DNR, MPCA, MHB, LLB, USACE

Priority 3

Cost Estimate \$1,000/year

**E. WETLAND PROTECTION GOAL:** Preserve the functions, values, and extent of the County's wetland resources and support programs that protect wetlands from development impacts.

**Objective 1---Determine the Extent and Condition of our Wetland Resources**

1. Use the wetland and groundwater models to identify wetlands that may be the most significant for groundwater recharge.
2. Develop a high priority wetland inventory

Lead agency: ESD

Supporting groups agency: SWCD, DNR, LLB, USACE, BWSR

Priority 2

Cost Estimate \$15,000

**Objective 2---Protect our Wetland Resources from Degradation**

1. Enforce existing regulations affecting wetland conversions.
2. Develop and implement management plans for High Priority wetlands.
3. Work cooperatively with departments, agencies, watershed organizations, foundations, developers, and individuals to place wetlands in conservation easements or similar protective mechanisms.

Lead agency: ESD

Supporting groups: SWCD, DNR, LLB, USACE, BWSR

Priority 1

Cost Estimate \$105,000/year

**F. EDUCATION AND INFORMATION GOAL:** Work cooperatively with other departments and agencies to provide accurate, useful environmental information.

**Objective 1---Strive to provide information and education to residents, businesses, State Agencies, and other local units of government about how Cass County is working to accomplish the goals laid out in this plan.**

1. Promote the implementation of water well abandonment and closure programs.
2. Continue to work with producers on agricultural conservation plans
3. Promote soil testing to help determine spreading rates for septage, animal waste, and chemical fertilizers
4. Conduct non-point source pollution source training.
5. Continue to support the efforts of lake associations and to assist in organizing new lake associations.
6. Promote the Citizen Lake Monitoring Program for all lakes in the county.
7. Provide lakeshore revegetation technical assistance and train shoreland volunteers to assist in designing and installing lakeshore plantings.
8. Promote the implementation of a program to educate residents and visitors about harmful exotic species and fish diseases.
9. Continue to promote the use of the Cass County website to disseminate educational information.
10. Promote the creation of local comprehensive plans for townships or other local units of government.

Lead agency: ESD

Supporting groups: SWCD, MES, DNR, MPCA, LLB, MHB, NRCS,  
ACCL, BWSR, TCELLWP, PRWPF

Priority 1

Cost Estimate \$10,000/year

**G. WATERSHED MANAGEMENT GOAL:** To work cooperatively with other agencies in implementing plans and projects based on watershed-wide priorities.

### **Objective 1---Assess Cass County's groundwater aquifers**

1. Work with the regional groundwater flow model and the MPCA Basin Planning Program to estimate aquifer boundaries and interaction with surface waters.

Lead agency: ESD

Supporting groups: DNR, MPCA, MHB, NRCS, BWSR, PRWPF

Priority 1

Cost Estimate        \$10,000

### **Objective 2---Assess Cass County's surface water watersheds**

1. Assess watershed impacts caused by individual developments and the cumulative effects of development on receiving waters.
2. Conduct research projects and analysis on a watershed basis starting with the lakes that are over 1,000 acres in size.
3. Support the efforts of watershed organizations.

Lead agency: ESD

Supporting groups: DNR, MPCA, MHB, NRCS, ACCL, BWSR, PRWPF,  
TCLLWP

Priority 1

Cost Estimate        \$5,000/year

<b>H. DATA MANAGEMENT GOAL:</b> Assemble and manage historical and current surface and groundwater data in efficient, useable formats that afford easy access and analysis.
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### **Objective 1---Assemble and manage Cass County's groundwater data**

1. Continue working with local water well drillers and septic system installers to record GPS locations for all new wells and septic systems
2. Continue to update and refine the regional groundwater flow model to provide better predictive groundwater data.

Lead agency: ESD

Supporting groups: DNR, MPCA, BWSR

Priority 1

Cost Estimate        \$10,000/year

**Objective 2--Assemble and manage Cass County's surface water data**

1. Acquire and maintain surface water quality data for future trend analysis.
2. Support and assist lake association's water quality testing program(s).

Lead agency: ESD

Supporting groups: DNR, MPCA, BWSR, ACCL, MHB, PRWPF, LLB

Priority 1

Cost Estimate \$20,000/year

**Objective 3--Assemble and manage Cass County's statistical and demographic data**

1. Create a county atlas. Maps, tables, and descriptions of all county data such as: watersheds, ecology, geomorphology, population density, roads, etc
2. Develop and institute policies and procedures for the acquisition, maintenance, use, and security of data.

Lead agency: ESD

Supporting groups: SWCD, MES, DNR, MPCA, LLB, USACE, USFS, MHB, NRCS, ACCL, BWSR, TCLLWP, PRWPF

Priority 1

Cost Estimate \$10,000

**Objective 4 --Assemble and manage Cass County's existing and new permit information.**

1. Create and utilize an interactive web-based permit program and database.

Lead agency: ESD

Supporting groups: SWCD, BWSR, DNR, MPCA

Priority 1

Cost Estimate \$100,000

**I. REGULATORY GOAL:** Enact and enforce policies, rules, and ordinances that are administered equitably and that protect the County's natural resources.

**Objective 1---Ordinance Enforcement**

1. Continue to administer and enforce the Cass County Wetland ordinance and Wetland Conservation Act.

2. Continue to administer and enforce the Cass County Land Use Ordinance
3. Develop a new Cass County Subsurface Sewage Treatment System Ordinance.
4. Continue to administer and enforce the Cass County Subdivision and Platting Ordinance
5. Continue to administer and enforce the Cass County Feedlot Ordinance.
6. Continue to administer and enforce the Mississippi Headwaters Management Plan
7. Develop and implement a Stormwater Ordinance.
8. Develop and implement conservation design standards.

Lead agency: ESD

Supporting groups: DNR, MPCA, BWSR, MHB, ACCL, SWCD,

Priority 1

Cost Estimate        \$300,000/year

**Objective 2---Establish and Assess Review Criteria**

1. Adopt the regional groundwater flow, wetland functional analysis, and upland functional analysis models as official County review criterion for permits, conditional uses, variances, developments, and plats.
2. Assess and reclassify shoreland zoning districts to protect critical areas and sensitive resources.
3. Review ordinances from townships and municipalities for compatibility and provide technical assistance to improve implementation.

Lead agency: ESD

Supporting groups: SWCD, DNR, MPCA, LLB, MHB, ACCL, BWSR, TCLLWP, PRWPF

Priority 1

Cost Estimate        \$7,500/year

<p><b>J. PLAN ADMINISTRATION GOAL:</b> Provide coordinated and efficient delivery of environmental services to assure the long term protection of water resources.</p>
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**Objective 1--Establish an Effective Structure for the Administration of the Plan**

1. Adopt the Comprehensive Local Water Management Plan Update as part of the Cass County Comprehensive Land Use Plan.
2. Conduct annual meetings in five communities to gain public input on environmental issues and problems, and evaluate plan implementation. Incorporate findings into Comprehensive Plan and ordinance updates.
3. Convene an intergovernmental meeting to explore funding options for Water Plan related projects including special taxing districts and user fees.
4. Maintain cooperative intergovernmental agreements that assist other local, state, federal, and tribal agencies in achieving their natural resource goals, and enlists their support in achieving ours.
5. Coordinate research and project planning with other local government units such as townships, cities, and adjoining counties.
6. Secure funding for projects and initiatives to implement the water plan fully.

Lead agency: ESD

Supporting agency: SWCD, BWSR, MPCA, MDH, DNR, LLB, NRCS, USFS,  
TCLLWP, PRWPF

Priority 1

Cost Estimate        \$15,000/year

<b>ACTION PLAN TIMELINE</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Ground-water Quality / Objective 1					
1. County groundwater program	X	X	X	X	X
2. Evaluate contaminant studies	X	X	X	X	X
Ground-water Quality / Objective 2					
1. Septic system upgrades at transfer	X	X	X	X	X
2. Systematic ISTS inspection	X	X	X	X	X
3. Wellhead implementation	X	X	X	X	X
4. Well abandonment	X	X	X	X	X
5. Identify development impacts	X	X	X	X	X
6. Promote wellhead development	X	X	X	X	X
Ground-water Quantity / Objective 1					
1. Estimate groundwater volume		X	X		
Surface Water Quality / Objective 1					
1. Stormwater management planning	X	X	X	X	X
2. Shoreline revegetation implementation	X	X	X	X	X
3. Lake management plans	X	X	X	X	X
4. Lake vulnerability index	X	X			
5. Sustainability and carrying capacity study		X	X		
6. Sensitive resource protection list	X	X	X		
7. Lakeshore revegetation demonstrations	X	X	X	X	X
8. Agricultural stream protection	X	X	X	X	X
9. Watershed strategies	X	X	X	X	X
10. Collective drainfield priorities	X	X	X	X	X
11. Impaired waters response	X	X	X	X	X
12. Assess water quality trends	X	X	X		
13. Assist research projects	X	X	X	X	X
14. Promote Conservation Developments	X	X	X	X	X
Surface Water Quality / Objective 2					
1. Exotic species protection	X	X	X	X	X
2. Fisheries habitat plans	X	X	X	X	X
Surface Water Quantity / Objective 1					
1. Watershed water budget models	X	X	X	X	X
2. Evaluate drought impacts	X	X			
3. Oppose exportation of water	X	X	X	X	X
4. Create tech. committee to review plans	X				

<b>ACTION PLAN TIMELINE</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>Wetland Protection / Objective 1</b>					
1. Groundwater recharge wetlands	X	X			
2. High priority wetland inventory	X	X			
<b>Wetland Protection / Objective 2</b>					
1. Restrict wetland conversions	X	X	X	X	X
2. High priority wetland plans	X	X	X	X	X
3. Wetland easement programs	X	X	X	X	X
<b>Education and Information / Objective 1</b>					
1. Promote well closure	X	X	X	X	X
2. Agricultural conservation plans	X	X	X	X	X
3. Promote soil testing	X	X	X	X	X
4. Non-point pollution training		X		X	
5. Organize lake associations	X	X	X	X	X
6. Promote Citizen Lake Monitoring	X	X	X	X	X
7. Train shoreland volunteers	X	X	X	X	X
8. Exotic species education	X	X	X	X	X
9. Online education	X	X	X	X	X
10. Promote local planning	X	X	X	X	X
<b>Watershed Management / Objective 1</b>					
1. Estimate groundwater aquifer boundaries			X	X	
<b>Watershed Management / Objective 2</b>					
1. Assess development impacts	X	X	X	X	X
2. Large lakes analysis of trends	X	X			
3. Support watershed organizations	X	X	X	X	X
<b>Data Management / Objective 1</b>					
1. Locate wells and septic systems	X	X	X	X	X
2. Update groundwater model	X	X	X	X	X
<b>Data Management / Objective 2</b>					
1. Acquire surface water data	X	X	X	X	X
2. Support water testing	X	X	X	X	X
<b>Data Management / Objective 3</b>					
1. Create data atlas	X	X	X	X	X
2. Develop data management policies	X				
<b>Data Management / Objective 4</b>					
1. web-based interactive database	X	X	X	X	X

**ACTION PLAN TIMELINE** 2009 2010 2011 2012 2013

Regulatory / Objective 1

1. Enforce wetland ordinance and act	X	X	X	X	X
2. Enforce land use ordinances	X	X	X	X	X
3. New SSTS ordinance	X	X			
4. Enforce subdivision ordinance	X	X	X	X	X
5. Enforce feedlot ordinance	X	X	X	X	X
6. Enforce MHB plan	X	X	X	X	X
7. Develop Stormwater Ordinance	X	X			
8. Conservation design standards	X	X	X	X	X

Regulatory / Objective 2

1. Adopt models as criterion	X				
2. Reclassify shorelands	X	X			
3. Coordinate municipal/township ordinances	X	X	X	X	X

Plan Administration / Objective 1

1. Adopt Plan	X				
2. Conduct public input meetings	X	X	X	X	X
3. Explore funding options	X	X	X	X	X
4. Intergovernmental agreements	X	X	X	X	X
5. Joint project planning	X	X	X	X	X
6. Secure funding	X	X	X	X	X

**EVALUATION METHOD AND INTERVAL**

This Water Plan will be evaluated in several different ways. Public meetings will be held to solicit citizen input on general effectiveness of plan implementation and needs for changes. Cooperating departments, agencies, and organizations will be consulted on a project or program basis.

The review intervals will be as follows:

Public review meetings	Annually
Budget and workplan	Annually
Agency project review	As needed
Plan revision	5 years

**ACRONYMS**

ACCL	Association of Cass County Lakes
BWSR	Minnesota Board of Water and Soil Resources
ESD	Cass County Environmental Services Department
DNR	Minnesota Department of Natural Resources

LGU	Local Governmental Unit
LLB	Leech Lake Band of Ojibwe
MDH	Minnesota Department of Health
MES	Minnesota Cooperative Extension Service
MHB	Mississippi Headwaters Board
MPCA	Minnesota Pollution Control Agency
NRCS	Natural Resources Conservation Service
PRWPF	Pine River Watershed Protection Foundation
RWA	Rural Water Association
SWCD	Cass Soil and Water Conservation District
TCLLWP	Tri-County Leech Lake Watershed Project
UMD	University of Minnesota-Duluth
USACE	US Army Corps of Engineers
USFS	US Forest Service

## **IMPLEMENTATION COSTS**

Estimating the true implementation costs of a fully funded action plan is not possible. In 2008 Cass County spent approximately \$653,000 on salaries and benefits on the employees charged with implementing the Plan. That does not account for administration costs such as fuel, vehicles, insurance, office supplies, etc. Cass County received approximately \$87,000 in water plan grant money and that money is spent entirely on salaries of employees who implement the Plan. Cass County ESD is charged with implementing the entire Plan and is funded significantly less than 10% by the State to do so. There is no shortage of worthwhile projects, but money and manpower are limiting factors. Millions of dollars could be spent on projects and programs if funding were available and personnel were available to deliver them. Often choices have to be made between projects, all of which are important and environmentally beneficial. Greater future state-level priority must be directed toward lake-based programs.

## **RECOMMENDATIONS**

Cass County ESD is charged with developing water plan goals and also implementing them. The lengthy time commitments required for Cass County to develop, amend, gather agency input, and await the formal review and approval process for the Comprehensive Local Water Management Plan almost seems to be counterproductive. Every hour spent on the administrative side of plan development, or updating the plan is equal to a finite precious resource – time, being taken away from implementation. While it is valuable to have self assessments periodically, there may be a different way of handling this assessment than to rewrite a new plan every 5 years to meet a State standard that is developed as a one size fits all approach. If a Local Water Management Plan is being implemented well and an assessment from BWSR does not indicate a need to update the Plan, maybe an update should not be required at that point in time.

**CASS COUNTY 2008 UPDATE**  
**COMPREHENSIVE LOCAL WATER MANAGEMENT PLAN**

**Priority Concerns Scoping Document**



**County Primer**

Cass County is a large county occupying over 2,000 square miles, located in North-Central Minnesota and is blessed with an abundance of lakes, wetlands, and public lands. Cass County's economy has historically been based on tourism and is a County that is projected to grow from 28,949 people in 2006 to 36,600 people by 2035 according to the Minnesota State Demographic Center. The current population distribution is about 13.5 people per square mile (Statewide is 61.8 people per square mile). Forestry is the dominant land use in Cass County. Over 60% of the land in Cass County is publicly owned land. Of the remaining acreage, approximately 34% is "seasonal recreational". Our tourism based economy relies heavily on the vast tracts of public lands and the availability of "seasonal recreation" property for people to vacation and recreate. The general

## Appendix 1

trend in private land use is the conversion of the old “cabin” to year round cabins that may be eventually occupied year round.

### **Introduction**

The following is the Priority Concerns Scoping Document (PCSD) for the 2008 Cass County Comprehensive Local Water Management Plan Update. The purpose of the document is to identify priority concerns for water resources in Cass County to be addressed in the next five years. Cass County Environmental Services Department (Cass ESD) is responsible for the local water management plan and started this minor revision process as an inclusive update to the Cass County Comprehensive Plan. The first Plan in Cass County was adopted in 1991 and this will be the third update of the original Plan. The current plan will expire on October 1, 2008 after a one year extension was given by BWSR.

### **Process**

The PCSD includes input from a variety of groups in Cass County as well as State Agencies. The Cass County Comprehensive Plan update team (John Sumption, Robert Yochum, Josh Stevenson, Brent Rud, Paul Fairbanks, and Larry Wolfe) met on October 3, 2007 to begin the process of updating the County Comprehensive Plan and lay out the expectations of the update. The Water Plan Subcommittee, a citizen’s stakeholder group, of the County Comprehensive Plan (John Alden, Bob Grussendorf, and Jerry Demars) met on October 17, 2007 and on November 19, 2007 to discuss the update to that portion of the plan. The members of this committee included everyone who requested to be a part of this process after official notice was published in the newspapers and also on the Cass County website.

There were 85 letters requesting comment sent to the following; every Township and City clerk in Cass County, adjoining Counties, Leech Lake Band Of Ojibwe, Association of Cass County Lakes Associations, Mississippi Headwaters Board, United States Forest Service, Board of Soil and Water resources, Minnesota Department of Natural Resources, Minnesota Department of Health, Minnesota Department of Agriculture, Minnesota Environmental Quality Board, and the Minnesota Pollution Control Agency.

The following is a list of groups who have responded to the request for comments:

- Cass County ESD Staff
- Water Plan Subcommittee of County Comprehensive Plan Update
- Mississippi Headwaters Board
- Minnesota Department of Natural Resources
- Minnesota Department of Agriculture
- Board of Soil and Water Resources
- Minnesota Department of Health
- City of Pine River
- Wabedo Township

## Appendix 1

The required Public Informational Meeting was advertised in every County newspaper and was held at the Cass County Courthouse on Friday, March 7, 2008. Nobody showed up to the Public Informational Meeting. The deadline for comments to be received and still included in the PCSD was Friday March 7, 2008 and one additional response was received from the Wabedo-Little Boy-Rice-Cooper Lakes Association via the Cass County Website.

### **Summary of responses received-**

#### Water Plan Subcommittee of County Comp Plan Update

1. Invasive species
2. Stormwater management
3. Exportation of ground and surface water
4. Shoreline restoration of native vegetation

#### Mississippi Headwaters Board

5. No concerns that are not addressed in the current plan as long as the plan continues to adhere to local, state, and federal guidelines and ordinances outlined in the MHB2002 Management Plan.

#### Minnesota Department of Natural Resources

6. Encouragement of lake management plans by Lake Associations
7. Use of the phosphorous coefficient to help in calculating P-loading

#### Minnesota Department of Agriculture

8. Manure management and ISTS
9. Conservation tillage and drainage
10. Agricultural chemical use and potential impacts to groundwater
11. Agricultural chemical use and potential impacts to surface water

#### Board of Water and Soil Resources

12. Protection of water quality during and after land development in riparian areas
13. The trend toward development of marginal lands
14. Water quality protection strategy

#### Minnesota Department of Health

15. Protect groundwater based drinking water sources within Cass County
16. Sealing unused, unsealed wells
17. Develop a local groundwater quality database

#### City of Pine River

18. Information provided regarding their public water supplies, nothing addressing priority concerns

#### Wabedo Township

19. Selective classification of lakes

## Appendix 1

- 20. County promotion of subordinate sewer districts
- 21. Exotic species action plan
- 22. Address resorts
- 23. Address docks

Wabedo-Little Boy-Cooper-Rice Lakes Association

- 24. Comments about minor language edits – not addressing priority concerns

### **Background**

Cass ESD includes planning and zoning, subsurface sewage treatment systems (SSTS), solid waste, soil and water conservation district, and other duties as directed by the County Board. The County ordinances regulating these areas are written by Cass ESD, adopted by the County Board, and implemented by Cass ESD under the direction of the County Comprehensive Plan and the Local Water Management Plan which was included in the County Comprehensive Plan for the first time in 2002. The every day activities of Cass ESD such as; land use permit application review, shoreland alteration permit application review, SSTS permit application review, plat reviews, stormwater management, education and consultation with citizens and industry professionals, and every day customer service are our Priority Concerns.

### **Summary of Priority Concerns**

After holding public informational meetings, soliciting Agency and Government entity input, convening the Water Plan Update Committee, and listening to staff recommendations; the changes that are proposed to the water plan summary from the County Comprehensive Plan are included in the Appendix A.

Our priority concerns are; groundwater protection, surface water protection, and education. We feel that almost everything we do falls into one of these three broad categories. Cass ESD has decided that there is no need to change our outline and goals for the Plan with the exception of adding an objective under education where one did not exist previously. We are still concerned about the same things that we were concerned about in 2002 and have been addressing in our every day duties since that time. We might address those concerns differently now and in the future than how they were addressed in the past. There are some proposed additions and deletions to the Plan which address new and emerging areas that we need to add to our list of duties. Most of those changes deal with specific issues that need to be addressed or specific protection measures that we are implementing to achieve our goals as laid out in the Plan.

Appendix B identifies how Cass County feels each comment that was received is being addressed or relates to the Local Water Management Plan.

## **2008-2013 County Comprehensive Plan/Water Plan Outline**

### **1. Groundwater Quality**

- i. Determine the quality of Cass County's groundwater resources
- ii. Prevent contamination of Cass County's groundwater resources

### **2. Groundwater Quantity**

- i. Determine the extent of surficial aquifers

### **3. Surface Water Quality**

- i. Provide for protection of all surface waters
- ii. Monitor and manage recreational uses to protect water resources

### **4. Surface Water Quantity**

- i. Monitor the existing volume and flow of surface water

### **5. Wetland Protection**

- i. Determine the extent and condition of our wetland resources
- ii. Protect our wetland resources from degradation

### **6. Education and Information**

- i. Strive to provide information and education to residents, businesses, State Agencies, and other local units of government about how Cass County is working to accomplish the goals laid out in this plan

### **7. Watershed Management**

- i. Assess Cass County's groundwater aquifers
- ii. Assess Cass County's surface water watersheds

### **8. Data Management**

- i. Assemble and manage Cass County's groundwater data
- ii. Assemble and manage Cass County's surface water data
- iii. Assemble and manage Cass County's statistical and demographic data

### **9. Regulatory**

- i. Ordinance enforcement

### **10. Plan Administration**

- i. Establish an effective structure for the administration of the Plan

## **COMPREHENSIVE LOCAL WATER MANAGEMENT PLAN**

### **SCOPE AND PURPOSE**

This plan is an analysis of Cass County's ground and surface waters and related land resources with a five-year action strategy designed to achieve County water resource and management goals.

The scope and purpose of the plan is to:

- Identify existing and potential problems and opportunities for the protection, management, and development of water and related land resources
- Preserve the pristine quality of the county's ground and surface waters and, where degradation has occurred, provide for water quality restoration
- Monitor water quality, use, and availability
- Develop objectives and carry out a plan of action to promote sound hydrologic management, effective environmental protection
- Provide coordinated and efficient delivery of environmental services to assure the long term protection of water resources and watersheds

### **INVENTORY OF RESOURCES AND ASSESSMENT OF EXISTING CONDITIONS**

Minnesota Statutes, Chapter 301B and Minnesota Rules, Chapter 9300 require that fifty-five key resource data items be reviewed in the water management planning process. In addition, 18 resource assessments are required to evaluate resource condition and the impact that various land uses may have on those resources. This background information is included in the supporting material section.

### **DESIRED FUTURE CONDITIONS AND GOALS**

**A. GROUND-WATER QUALITY GOAL:** Preserve the quality of the County's ground-water and where degradation has occurred, provide for restoration of ground-water quality.

**B. GROUND-WATER QUANTITY GOAL:** Monitor water use to assure adequate ground-water resources.

Appendix A

C. SURFACE WATER QUALITY GOAL: Preserve the quality of Cass County's surface water, and where degradation has occurred, work to restore the surface water quality.

D. SURFACE WATER QUANTITY GOAL: Monitor water use to assure adequate surface water resources.

E. WETLAND PROTECTION GOAL: Preserve the functions, values, and extent of the County's wetland resources and support programs that protect wetlands from development impacts.

F. EDUCATION AND INFORMATION GOAL: Work cooperatively with other departments and agencies to provide accurate, useful environmental information.

G. WATERSHED MANAGEMENT GOAL: To work cooperatively with other agencies in implementing plans and projects based on watershed-wide priorities.

H. DATA MANAGEMENT GOAL: Assemble and manage historical and current surface and groundwater data in efficient, useable formats that afford easy access and analysis.

I. REGULATORY GOAL: Enact and enforce policies, rules, and ordinances that are administered equitably and that protect the County's natural resources.

J. PLAN ADMINISTRATION GOAL: Provide coordinated and efficient delivery of environmental services to assure the long-term protection of water resources.

**POLICY NEEDS**

~~The ESD Advisory Committee has adopted the following list of objectives and action items in order to achieve our stated goals:~~

<b>A. GROUND-WATER QUALITY GOAL:</b> Preserve the quality of the County's groundwater and where degradation has occurred, provide for restoration of groundwater quality.
---

**Objective 1--Determine the Quality of Cass County's Ground-water Resources**

1. Create a County groundwater-monitoring program. The purpose of this program is to utilize the UMD regional groundwater flow model, well testing results for nitrates and coliform bacteria, and other monitoring data to discover the quality, extent, and flow direction of our ground-water and learn more about the impacts of human activity on our ground-water.

Appendix A

2. Evaluate the results of studies of contaminants to groundwater.
- ~~3. Coordinate water monitoring and research efforts Williams Lake IRI project.~~

Lead agency: ESD  
Supporting groups: MPCA, USGS, MDH, UMD  
Priority 2  
Cost Estimate       \$5000

**Objective 2. Prevent Contamination of Cass County's Groundwater Resources**

1. Continue enforcement of county individual **subsurface** sewage treatment system ordinance provision requiring individual sanitary treatment system evaluation and/or update at the time of property transfers.
2. Develop and implement a systematic program of compliance inspections of ~~ISTS~~ **SSTS** systems not currently in compliance on a lake-by-lake or area-by-area basis, prioritized on the basis of housing density, soil suitability, and pollution potential. **The purpose of this program is to inspect and inventory all of the existing SSTS in Cass County.**
- ~~3. Develop and implement an alternative individual sewage treatment code that sets County standards for waste treatment and allows alternative and experimental systems to be evaluated and adopted as standard systems.~~
3. Use the regional groundwater flow model to implement a wellhead protection program.
- ~~5. Administer the State well permitting.~~
4. Promote the implementation of water well abandonment and closure programs.
5. Utilize the regional groundwater flow model to identify possible negative recharge area impacts for new proposed developments or plats.

**6. Promote the development and implementation of wellhead protection plans for all public water supplies.**

Lead agency: ESD  
Supporting groups: UMD, MDH, MPCA, RWA  
Priority 1  
Cost Estimate       \$125,000/yr.

**B. GROUND-WATER QUANTITY GOAL:** Monitor water use to assure adequate ground-water resources.

**Objective 1--Determine the Extent of Surficial Aquifers**

1. Utilize the regional groundwater flow model to estimate volumes of groundwater

Lead agency: ESD  
Supporting groups: UMD, MDH, MPCA  
Priority 3  
Cost Estimate \$3,000/yr.

**C. SURFACE WATER QUALITY GOAL:** Preserve the quality of Cass County's surface water, and where degradation has occurred, work to restore the surface water quality.

**Objective 1--Provide for Protection of All Surface Waters**

1. Work with agencies, developers, and individuals to create and implement stormwater management plans.
2. ~~Work with the Mississippi Headwaters Board River Defense Network to implement a pipeline spill emergency program for the county.~~ **Work with agencies, developers, lake associations, and individuals to create and implement shoreline revegetation plans.**
3. Assist lake associations in their efforts to develop and implement management plans for individual lakes or watersheds.
4. Assess the Itasca County Lake Vulnerability Index for use in Cass County.
5. Work with other agencies to develop lake sustainability and carrying capacity criterion.
6. Develop a sensitive resource protection list for use in determining priorities for conservation easements, acquisitions, and other protection programs **as well as land use decisions and establishing development standards. Promote conservation easements, prevention of forest and habitat fragmentation, and other forms of protecting sensitive areas.**
7. Set up lakeshore revegetation demonstration sites on all general development lakes.

Appendix A

8. Continue agricultural programs for stream protection.
- ~~9. Support the Mississippi Headwaters Board River Watch Program~~
9. Use major watershed management strategies for water quality protection.
10. Develop a priority list of areas needing collective septic drainfields and implement an installation program.

**11. Assist Agencies, Lake Associations, and other local units of government with the response to any identified impaired waters.**

**12. Assess trends in water quality in lakes over 1,000 acres.**

**13. Promote and assist with other research projects that will further enable Cass County to provide for better protection of our surface water resources.**

**14. Develop and promote conservation development design standards.**

Lead agency: ESD

Supporting groups: SWCD, MES, DNR, MPCA, LLB, USACE, USFS  
MHB, NRCS, ACCL, BWSR, TCLLWP, PRWPF

Priority 1

Cost Estimate        \$20,000/yr.

**Objective 2--Monitor and Manage Recreational Uses to Protect Water Resources**

1. Assist in monitoring of lakes for exotic species such as Eurasian water milfoil, **spiny waterfleas, zebra mussels, and rusty crayfish and also for fish diseases such as VHS.**
2. Support the implementation of fishery habitat management plans.

Lead agency: ESD

Supporting groups: DNR, SWCD, TCLLWP, PRWPF, **ACCL, individual lake associations**

Priority 2

Cost Estimate        \$3,000/yr.

<b>D. SURFACE WATER QUANTITY GOAL:</b> Monitor water use to assure adequate surface water resources.
--

**Objective 1--Monitor the Existing Volume and Flow of Surface Water**

2. Use current studies to help develop water budget modeling for watersheds.
2. Evaluate possible impacts of droughts on natural and economic resources.

**3.Support maintaining current water levels and lobby against unnecessary drawdowns of reservoirs and exportation of all surface waters.**

**4. Establish a committee or task force of hydrology or related professionals in the region to make recommendations to any regional issues related to water quantity.**

Lead agency: ESD

Supporting groups agency: DNR, MPCA, MHB, LLB, USACE

Priority 3

Cost Estimate            \$2,000/yr.

**E. WETLAND PROTECTION GOAL:** Preserve the functions, values, and extent of the County's wetland resources and support programs that protect wetlands from development impacts.

**Objective 1---Determine the Extent and Condition of our Wetland Resources**

1. Use the wetland and groundwater models to identify wetlands that may be the most significant for groundwater recharge.
2. Develop a high priority wetland inventory

**Objective 2---Protect our Wetland Resources from Degradation**

1. Enforce existing regulations affecting wetland conversions.
2. Develop and implement management plans for High Priority wetlands.
3. Work cooperatively with departments, agencies, watershed organizations, foundations, developers, and individuals to place wetlands in conservation easements or similar protective mechanisms.

Lead agency: ESD

Supporting groups: SWCD, DNR, LLB, USACE, BWSR

Priority 1

Cost Estimate            \$105,000/yr.

**F. EDUCATION AND INFORMATION GOAL:** Work cooperatively with other departments and agencies to provide accurate, useful environmental information.

**Objective 1---Strive to provide information and education to residents, businesses, State Agencies, and other local units of government about how Cass County is working to accomplish the goals laid out in this plan.**

1. Promote the implementation of water well abandonment and closure programs.
2. Continue to work with producers on agricultural conservation plans
3. Promote soil testing to help determine spreading rates for septage, animal waste, and chemical fertilizers
4. Conduct non-point source pollution source training.
5. Continue to support the efforts of lake associations and to assist in organizing new lake associations.
6. Promote the Citizen Lake Monitoring Program for all lakes in the county.
7. Provide lakeshore revegetation technical assistance and train shoreland volunteers to assist in designing and installing lakeshore plantings.

**8. Promote the implementation of a program to educate residents and visitors about harmful exotic species and fish diseases.**

**9. Continue to promote the use of the Cass County website to disseminate educational information.**

**10. Promote the creation of local comprehensive plans for townships or other local units of government.**

Lead agency: ESD

Supporting groups: SWCD, MES, DNR, MPCA, LLB, MHB, NRCS,  
ACCL, BWSR, TCLLWP, PRWPF

Priority 1

Cost Estimate \$10,000/yr.

**G. WATERSHED MANAGEMENT GOAL:** To work cooperatively with other agencies in implementing plans and projects based on watershed-wide priorities.

**Objective 1---Assess Cass County’s groundwater aquifers**

1. Work with the regional groundwater flow model and the MPCA Basin Planning Program to estimate aquifer boundaries and interaction with surface waters.

**Objective 2---Assess Cass County’s surface water watersheds**

~~1. Determine subwatershed boundaries on a project basis in cooperation with lake associations.~~

1. Assess watershed impacts caused by individual developments and the cumulative effects of development on receiving waters.

**2. Conduct research projects and analysis on a watershed basis starting with the lakes that are over 1,000 acres in size.**

~~3. Assist MDNR and MPCA Basin Planning Program with watershed stream gauging programs.~~

3. Support the efforts of watershed organizations.

Lead agency: ESD

Supporting groups: DNR, MPCA, MHB, NRCS, ACCL, BWSR, PRWPF, TCELLWP

Priority 1

Cost Estimate            \$5,000/yr.

<b>H. DATA MANAGEMENT GOAL:</b> Assemble and manage historical and current surface and groundwater data in efficient, useable formats that afford easy access and analysis.
---

**Objective 1---Assemble and manage Cass County’s groundwater data**

1. **Continue working** ~~Develop a program~~ with local water well drillers and septic system installers to record GPS locations for all new wells and septic systems
2. Continue to update and refine the regional groundwater flow model to provide better predictive groundwater data.

**Objective 2--Assemble and manage Cass County’s surface water data**

1. Acquire and maintain surface water quality data for future trend analysis.
2. Maintain the ESD and **Support and assist** lake association’s **water quality testing** program ~~(s)~~ for Hydrolab testing.

**Objective 3--Assemble and manage Cass County's statistical and demographic data**

1. Create a county atlas. Maps, tables, and descriptions of all county data such as: watersheds, ecology, geomorphology, population density, roads, etc
2. Develop and institute policies and procedures for the acquisition, maintenance, use, and security of data.

Lead agency: ESD

Supporting groups: SWCD, MES, DNR, MPCA, LLB, USACE, USFS, MHB, NRCS, ACCL, BWSR, TCELLWP, PRWPF

Priority 1

Cost Estimate        \$15,000/yr.

**Objective 4 –Assemble and manage Cass County's existing and new permit information.**

**1. Create and utilize an interactive web-based permit program and database.**

**Lead agency: ESD**

**Supporting groups: SWCD, BWSR, DNR, MPCA**

**I. REGULATORY GOAL:** Enact and enforce policies, rules, and ordinances that are administered equitably and that protect the County's natural resources.

**Objective 1---Ordinance Enforcement**

1. Continue to administer and enforce the Cass County Wetland ordinance and Wetland Conservation Act.
2. Continue to administer and enforce the Cass County Land Use Ordinance
3. ~~Continue to administer and enforce the~~ **Develop a new** Cass County Individual **Subsurface** Sewage Treatment System Ordinance.
4. Continue to administer and enforce the Cass County Subdivision and Platting Ordinance
5. Continue to administer and enforce the Cass County Feedlot Ordinance ~~and the MPCA Feedlot Permitting Program~~

**6. Continue to administer and enforce the Mississippi Headwaters Management Plan**

**7. Develop and implement a Stormwater Ordinance.**

**8. Develop and implement conservation design standards.**

**Objective 2--Establish and Assess Review Criteria**

1. Adopt the regional groundwater flow, wetland functional analysis, and upland functional analysis models as official County review criterion for permits, conditional uses, variances, developments, and plats.
2. Assess and reclassify shoreland zoning districts to protect critical areas and sensitive resources.
- ~~3. ESD Advisory Committee to make recommendations on evaluation and revision of county ordinances and plans.~~
3. Review ordinances from townships and municipalities for compatibility and provide technical assistance to improve implementation.

Lead agency: ESD  
Supporting groups: SWCD, DNR, MPCA, LLB, MHB, ACCL, BWSR, TCELLWP, PRWPF  
Priority 1  
Cost Estimate           \$30,000/yr.

**J. PLAN ADMINISTRATION GOAL:** Provide coordinated and efficient delivery of environmental services to assure the long term protection of water resources.

**Objective 1--Establish an Effective Structure for the Administration of the Plan**

- ~~1. Formalize the ESD Advisory Committee's role in water plan administration and ordinance review. Develop operating policies and meeting schedules for project and budget review, and plan evaluation.~~
1. Adopt the Comprehensive Local Water Management Plan Update as part of the Cass County Comprehensive Land Use Plan.

## Appendix A

2. Conduct annual meetings in five communities to gain public input on environmental issues and problems, and evaluate plan implementation. Incorporate findings into Comprehensive Plan and ordinance updates.
3. Convene an intergovernmental meeting to explore funding options for Water Plan related projects including special taxing districts and user fees.
4. Maintain cooperative intergovernmental agreements that assist other local, state, federal, and tribal agencies in achieving their natural resource goals, and enlists their support in achieving ours.

**5. Coordinate research and project planning with other local government units such as townships, cities, and adjoining counties.**

Lead agency: ESD

Supporting agency: SWCD, BWSR, MPCA, MDH, DNR, LLB, NRCS,  
USFS, TCLLWP, PRWPF

Priority 1

Cost Estimate        \$8,000/yr.

EVALUATION METHOD AND INTERVAL

This Water Plan will be evaluated in several different ways. Public meetings will be held to solicit citizen input on general effectiveness of plan implementation and needs for changes. The ESD Advisory Committee will review progress on projects, as well as assisting in the development of the annual budget and workplan. Cooperating departments, agencies, and organizations will be consulted on a project or program basis.

The review intervals will be as follows:

Public review meetings	Annually
<del>ESD Advisory Committee project review</del>	<del>Quarterly</del>
Budget and workplan	Annually
Agency project review	As needed
Plan revision	5 years

**ACRONYMS**

ACCL	Association of Cass County Lakes
BWSR	Minnesota Board of Water and Soil Resources
ESD	Cass County Environmental Services Department
DNR	Minnesota Department of Natural Resources
LGU	Local Governmental Unit
LLB	Leech Lake Band of Ojibwe
<del>MBR</del>	<del>Middle Boy River Project</del>
MDH	Minnesota Department of Health
MES	Minnesota Cooperative Extension Service
MHB	Mississippi Headwaters Board.
<del>MLA</del>	<del>Minnesota Lakes Association</del>
MPCA	Minnesota Pollution Control Agency
NRCS	Natural Resources Conservation Service
PRWPF	Pine River Watershed Protection Foundation
RWA	Rural Water Association
SWCD	Cass Soil and Water Conservation District
TCLLWP	Tri-County Leech Lake Watershed Project
UMD	University of Minnesota-Duluth
USACE	US Army Corps of Engineers
USFS	US Forest Service

**Comment #1 – Invasive Species**

The comment was made that the County should have a major responsibility when a lake is identified as having exotic species and should work really hard to prevent exotics from coming into Cass County.

The draft Plan includes in Surface Water Quality Goal, objective 2, 1. County assistance in monitoring for exotics and additional exotic species listed as requested and also in Education and Information Goal, objective 1, 8. the County will promote the implementation of a program to educate residents and visitors about harmful exotics.

**Comment #2 – Stormwater Management**

The comment was made that the County should adopt a stormwater management ordinance.

The draft Plan includes in Regulatory Goal, objective 1, 7. Develop and implement a stormwater Ordinance.

**Comment #3 – Exportation of ground and surface water**

The comment and discussion revolved around the principle that we should try and do everything we can at the local level to protect our waters from exportation especially in this time of uncertainty around the Country about water supply levels. Also there was discussion bout forming a task force that would address any regional water issues in Cass County.

The draft Plan includes in Surface Water Goal, objective 1, 3 & 4. That the County support maintaining current water levels and lobby against unnecessary drawdowns of reservoirs and exportation of all surface waters. Also the draft plan includes language to establish a task force to address regional water quantity issues.

**Comment #4 – Shoreline restoration of native vegetation**

This comment was indicating that Cass County needs to aggressively pursue regulations that would require riparian property owners to restore their shoreline with native vegetation wherever possible.

The draft Plan includes in Surface Water Quality Goal, objective 1, 2. that the County work with property owners and others to implement shoreline revegetation plans. Cass ESD will also look at more ways of requiring restoration in the Cass County Land Use Ordinance.

## Appendix B

### **Comment #5 – MHB – No comment as long as the Plan continues to abide by the MHB Management Plan**

The draft Plan includes in Regulatory Goal, objective 1, 6. Continue to administer and enforce the MHB Management Plan.

### **Comment #6 – DNR – Lake Management Plans**

This comment indicated a desire for the County to promote the development of individual lake management plans by Lake Associations.

The draft Plan includes in Surface Water QUALITY Goal, objective 1, 3. Assist lake associations in their efforts to develop and implement management plans for individual lakes or watersheds.

### **Comment #7 – DNR – Phosphorous loading**

The DNR wants Cass County to look at using the phosphorous coefficient to help in calculating P-loading.

The draft Plan includes in Surface Water QUALITY Goal, objective 1, 4 & 5. The Itasca County Lake Vulnerability Index will be reviewed by Cass County to see if it is something that can be applied in Cass County. Cass County will also work with other agencies to help develop the criteria for carrying capacities.

### **Comment #8 – Dept. of Ag. – Manure Management and ISTS**

The comments mostly address the manure management but also include a comment about having a plan to upgrade non-conforming ISTS. Under manure management the comments were addressing the need for further regulating land application of manure as this has been shown to be more of a problem in some areas than feedlots themselves.

The non-conforming ISTS are addressed in Ground Water Quality Goal, objective 2, 2. This section lays out the plan of identifying non-conforming SSTS and the SSTS Ordinance regulates how they are upgraded.

The manure management comments are regulated in the Cass County Feedlot Ordinance and will be addressed during the Ordinance revision process.

### **Comment #9 - Dept. of Ag. – Conservation Tillage & Drainage**

The comments were encouraging Cass County to actively encourage the practice of conservation tillage and drainage on agricultural lands in Cass County.

The comments seem as though they are mostly addressed by the Dept. of Agriculture with their excellent education programs on these topics. The draft

## Appendix B

plan includes in the Surface Water Quality Goal, objective 1, 1 & 8 the concepts of developing stormwater management plans and also the continuation of agricultural programs for stream protection.

### **Comment #10 - Dept. of Ag. – Ag chemical use and impacts to groundwater**

The comment identifies the need for testing the shallow water aquifers in Cass County and also to promote the pesticide groundwater quality BMPs.

The NRCS agricultural management plans will continue to include chemical use guidelines and in Cass County, agricultural lands are being developed as residential developments so fast that these areas are not as high a priority as they may be in other Counties. Cass County does welcome the MDA to sample for potential problems and will work with MDA to address any needs in this area in the future.

### **Comment #11 - Dept. of Ag. – Ag chemical use and impacts to surface water**

The comment identifies the need for testing surface waters in Cass County.

The draft plan includes in the Surface Water Quality Goal, objective 1, 1 & 8 the concepts of developing stormwater management plans and also the continuation of agricultural programs for stream protection to prevent contamination of our surface waters. Also, Cass County welcomes MDA to monitor surface water qualities in Cass County and will work cooperatively with MDA to address any problems that may be found.

### **Comment #12 – BWSR – Water quality protection during and after development**

This comment is directed at preventing erosion and sedimentation from occurring during and after development on riparian lots.

The draft plan includes in the Surface Water Quality Goal, objective 1, 1 & 2 address the comments from a stormwater management and shoreline vegetation perspective. The other area that this comment is addressed in its entirety is in enforcing the Cass County Land Use Ordinance. The Cass County Land Use Ordinance is where all of the regulations exist that have been developed to help prevent a site from being “over-developed” and polluting our waters.

### **Comment #13 – BWSR – Development of Marginal Lands**

This comment addresses the real life fact that any riparian property that possibly can be developed will be developed.

## Appendix B

The potential negative impacts of developing marginal lands or less than desirable lands are negated by the regulations established to prevent this type of development from having negative effects on our water quality in the Cass County Land Use Ordinance. The draft Plan includes in the Surface Water Quality Goal, objective 1, 6 an outline of a plan to identify and protect some of our most sensitive areas from “over-development” or possibly even development at all.

### **Comment #14 – BWSR – Water quality protection strategy**

This comment identifies a need for Cass County to develop a strategy to protect our excellent water quality for the future.

The Comprehensive Local Water Management Plan was developed in Cass County with that goal in mind. The water quality protection strategy is the Comprehensive Local Water Management Plan in Cass County. The Plan along with all of the Ordinances that are enforced in Cass County all play a role in protecting the water quality in Cass County well into the future. The draft Plan includes in Surface Water Quality Goal, objective 1, 12 a plan to assess trends in water quality in the lakes over 1,000 acres and the results of that study will help us identify where further protection measures are needed.

### **Comment #15 – Dept. of Health – Drinking water source protection**

This comment identifies a need for wellhead protection plans for public water supplies in Cass County.

This comment is addressed in the draft Plan under Groundwater Quality Goal, objective 2, 6. Promote the development and implementation of wellhead protection plans for all public water supplies.

### **Comment #16 – Dept. of Health – Sealing unused, unsealed wells**

The MDH identifies a need to seal all unused and unsealed wells.

The draft Plan includes in Groundwater Quality Goal, objective 2, 4. Promote the implementation of water well abandonment and closure programs.

### **Comment #17 – Dept. of Health – Local groundwater quality database**

MDH identifies a need to develop a local groundwater quality database.

The draft Plan includes in Groundwater Quality Goal, objective 1, 1 and under Data Management Goal, objective 1 &2. The creation of a groundwater monitoring program is proposed.

### **Comment #18 – City of Pine River – public water supply information**

## Appendix B

The information that was submitted to me did not address a need in the Comprehensive Local Water Management Plan and it laid out the status of the public water supply in Pine River.

There is nothing to address at this point in regards to the information sent to us by the City of Pine River.

### **Comment #19 – Wabedo Township – Selective classification of docks**

This comment specifically addresses the desire for Cass County to finish the Intralake zoning project that was started a few years ago and implement some new standards for development in those areas.

The comment is addressed under Surface Water Quality Goal, objective 1, 6. The sensitive resource protection list is proposed to be used for determining where special regulations may apply for new developments and also developing individual lots.

### **Comment #20 – Wabedo Township – Promotion of subordinate sewer districts**

This comment hoped to get the County to promote the use of subordinate sewer districts.

Cass County at this time does not promote a certain type of solution to wastewater needs, only that any non-compliant SSTS be upgraded within the time allowed. There are other ways to address SSTS needs than just a subordinate sewer district.

### **Comment #21 – Wabedo Township – Exotic species action plan**

Wabedo Township wants Cass County to identify how the County will help the lake associations with exotic species should they show up in their lakes.

At this time Cass County does not deem this type of plan necessary as every lake and every different exotic species that may infect those lakes requires different levels of action. The County will address each new exotic species infestation on an individual basis.

### **Comment #22– Wabedo Township – Address resorts**

Wabedo Township wishes the County to address resorts in the Plan.

Resorts are regulated under the Cass County Land Use Ordinance and also by the Minnesota Department of Health. We do not feel that resorts need to be “addressed” in the Plan.

## Appendix B

### **Comment #23 – Wabedo Township – Address docks**

Wabedo Township wishes the County to address and regulate docks in the Plan.

Cass County does not currently have jurisdiction over docks. Docks are regulated by the MN DNR at this time and the Cass County Board has expressed no interest in taking over the regulation of docks from the DNR.

### **Comment #24 – Wabedo-Little Boy-Cooper-Rice Lakes Association – language edit**

Their comments are limited to minor language edits and do not propose and changes to the priority concerns.