

Lake County Local Water Management Plan Update

July 2005

Duration: 2006 – 2015

Amended: November 2012

Amended: June 2010

Duration: 2011 - 2015

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With Assistance From:

Lake County Water Plan Advisory Committee

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Executive Summary

The Lake County Local Water Management Plan was amended in 2010 as agreed to per approval of the Lake County Water Plan Update on October 26, 2005 by the Minnesota Board of Water and Soil Resources. On February 9, 2010, the Lake County Board passed a resolution to begin the amendment process. Local units of governments and state agencies were notified in late February and the Lake County Water Plan Advisory Committee started the amendment process at their February 23, 2010 meeting. Briefly, the entire 2005 Lake County Water Plan Update was reviewed and changes were made in the following areas:

1. Priority Concerns – high priority watersheds were listed and defined.
2. Relevant Plans and Controls – updated and additional plans were added for reference purposes
3. Implementation Program (5 Year Work Plan: 2011- 2015) – updated and work plan was expanded.

Following approval by the Water Plan Advisory Committee, the amended plan was sent to local units of government and state agencies for formal review. After taking into consideration review comments, a public hearing was held in Lake County.

The Water Plan Advisory Committee met on November 28, 2012. The Advisory Committee members list was updated due to turnover and retirements and decisions were made for the following:

1. Lake Superior will be added as a Priority Waterway.
2. Representatives from all townships and municipalities within Lake County will be invited to participate on the Advisory Committee.

Previously, the Lake County Local Water Management Plan was updated by a ten-member Water Plan Advisory Committee that was led by Wayne Seidel, Lake County Water Plan Administrator. The update process was started in 2002, suspended in 2003 due to a state budget shortfall, resumed in 2004, and completed in 2005. The purpose of the planning process was to develop a plan of work that would protect and enhance surface water, ground water and related land resources within Lake County. The Advisory Committee developed a planning process designed to incorporate input from the general public, input from local units of government and state agencies, and to develop consistency with local, state and federal plans and controls.

Following meetings with township officials, completion of a water issues survey (230 respondents), and feedback from state agencies, the Advisory Committee identified seven *Priority Concerns*.

1. Increased Development Pressures – Erosion Control on Construction Sites, Road Management, Cumulative Impacts, Shoreline Erosion Control

2. Enforcement of Existing Land Use Laws and Use of Best Management Practices in Development Activities and Forest Management Activities
3. Storm Water Management
4. Wastewater Management - Non-Conforming Sewage Treatment Systems, Surface and Groundwater Contamination, Drinking Water Quality
5. Natural Resources Education on Water/Land Issues
6. Lake and Stream Water Quality, Water Quantity and Biological Integrity
7. Supportive of Total Maximum Daily Load (TMDL) research project efforts on north shore streams.

After assessing the seven *Priority Concerns* and additional ongoing water plan programs, the Advisory Committee endorsed the overall goal of the original Local Water Management Plan (1993) as still being relevant for Lake County. The overall goal states, "Maintain and improve both surface and groundwater quality and quantity through sound ecosystem management."

This overall goal encompasses three components that include: Education and Information; Natural Resources Planning and Practices; and Administration. The Advisory Committee combined this overall goal with six specific objectives, within the framework of a ten-year plan of work, to address the needs of the *Priority Concerns* and ongoing water plan programs.

The six objectives identified to achieve the overall goal include:

- Objective 1: Promote and Implement Sound Land Use Practices
- Objective 2: Promote Proper Use and Disposal of Household Hazardous Wastes
- Objective 3: Improve the Management and Maintenance of Individual Sewage Treatment Systems
- Objective 4: Coordinate Local Government Efforts to Address Surface and Ground Water Pollution Problems
- Objective 5: Implement a Natural Resources Education Program that instills a Stewardship Ethic
- Objective 6: Administer the Lake County Local Water Management Plan in an Efficient and Cost-Effective Manner

The ten-year plan of work concentrates on tasks that address priority concerns that are within current budgetary and staff time constraints. Presently, the Lake County Water Plan budget is approximately \$23,000 per year and implementation has been delegated to the Lake County Soil and Water Conservation District. Examples of work plan items include:

- a. Conduct an annual Erosion Control Workshop for Contractors.
- b. Assist the Lake County Planning Commission on land use issues related to erosion control and storm water management.

- c. Conduct a variety of natural resources education programs for students – Natural Resources Field Day, Area III ENVIROTHON Competition, Lake County Demonstration Forest, and Wastewater Treatment.
- d. Provide educational opportunities on the proper maintenance of sewage treatment systems.
- e. Provide a copy of the *Lake County Property Owner's Resource Guide* to all new property owners.

Background of Planning Process

The Lake County Comprehensive Water Management Plan, originally approved in 1993, was updated in 1998 by a 17-member Water Planning Task Force. The revised plan was set to expire on July 22, 2003, therefore, the second update process was begun in 2002. The Water Plan Advisory Committee met bi-monthly to assess the previously identified issues and to develop a planning process that would incorporate public input.

In July and August of 2002, a notification letter was sent to townships and cities in Lake County informing them of the water plan update process and requesting their participation. Wayne Seidel, Water Plan Administrator, met with three of the five township boards (Beaver Bay, Crystal Bay, Silver Creek) and spoke with representatives of the other two townships (Stony River and Fall Lake) to gather input on water-related issues. Based on this input, a written survey tool was developed to gather public opinions on priority water issues in Lake County. The survey was used at the 2002 Lake County Fair and over 220 people participated by rating water-related issues and identifying additional concerns. Township and city officials were also encouraged to complete the written survey. Altogether, 230 surveys were completed and the results were tabulated.

In February 2003, the State of Minnesota budget shortfall led to the unallotment of all local water management funds administered by the Minnesota Board of Water and Soil Resources. In response to this situation, the Lake County SWCD laid off the Water Plan Coordinator in March and suspended all water plan update activities due to the uncertainty of future funding. Following legislative action, a portion of local water planning funding was restored for FY 2004

The Water Plan Update process was resumed on April 14, 2004 when the Lake County Board of Commissioners approved a resolution to revise and update its current local water management plan. The County Board delegated to the Lake County SWCD the responsibility of coordinating, assembling, writing and implementing the revised local water management plan pursuant to M.S. 103B.301. The County Board also approved a ten-member Water Plan Advisory Committee (WPAC) to complete the update process. Members of the committee included:

Cliff Bentley – MN DNR Area Hydrologist
John Eaton – Citizen Member
Lenore Johnson – Lake County Commissioner

Michelle Larson – Lake County Health Department
Note: Deborah Kosiak was selected to fill Ms. Larson’s position on the committee effective May 2005.
Jim Linscheid – Lake County Planning Commission
Nancy Norlen – Citizen Member (resigned 8/04)
Dick Sigel - Lake County Land Use Administrator (retired 6/04)
Brenda VanBergen – Lake County SWCD Supervisor
Walt VanDenHeuvel – Lake County Land Use Specialist
Don Warner – Lake County SWCD Supervisor

The Water Plan Advisory Committee met on May 20, 2004 to resume the update process and completed the written survey to prioritize water issues. Letters were sent to townships, cities, and adjacent counties to notify them that Lake County was resuming the process of updating the Lake County Local Water Management Plan. Copies of the *Water Quality Issues Prioritization Survey* were included along with a request for a copy of any water and related land resources plans and official controls. Letters were also sent to the six state review agencies (BWSR, DNR, MPCA, MDA, MDH, EQB) requesting input on priority water concerns.

The Water Plan Advisory Committee hosted a Public Input Meeting on August 31, 2004 at the Lake County Courthouse. Wayne Seidel facilitated the meeting and the participants learned about the Lake County Water Management Plan (history, highlights, update process) and had an opportunity to share water quality concerns. The meeting was attended by eleven people and a number of water quality concerns and related issues were identified.

Over the next seven months, the Water Plan Advisory Committee – identified seven priority concerns; completed the *Priority Scoping Document*; received input from the public, state agencies, and local units of government; identified goals and objectives; and developed a ten-year plan of work. The work plan concentrates on priority concerns that are within the budgetary and staff time constraints of current funding levels.

Relevant Plans and Controls

The following plans and controls are consistent with the work plan efforts outlined in the Lake County Water Management Plan.

Lake County Environmental Review **Ordinance**
Lake County **S**STS Ordinance
Lake County Land Use Ordinance / Comprehensive Plan
Lake County Solid Waste Ordinance
Lake County Subdivision Ordinance
Lake County Soil and Water Conservation District Comprehensive Plan
Minnesota DNR Protected Waters Permit Program
Minnesota Wetland Conservation Act
North Shore Management Plan
Source Water Assessments for Beaver Bay, Silver Bay and Two Harbors

The following plans and programs listed below, though not official control's, may have components implemented in Lake County provided that the components are consistent with the Lake County Water Management Plan and are approved locally.

Fisheries Management for the MN Waters of Lake Superior
Great Lakes Restoration Initiative Action Plan – FY10-FY14
Lake Superior Basin Plan
Lake Superior Lake-Wide Management Plan
Lake Superior Pilot Beach Monitoring Program
Minnesota Statewide Conservation and Preservation Plan
Minnesota's Lake Superior Coastal Resources Plan
Rainy River Basin Plan
Sustaining MN Forest Resources – Voluntary Site-Level Forest Mgmt. Guidelines
Two Harbors Storm Water Management Plan

The Water Plan Advisory Committee is not recommending specific changes to official controls at this time. However, the committee is interested in strengthening storm water management controls and addressing cumulative impacts of development on water resources. **The Committee is supportive of the draft Lake County Storm Water Ordinance, developed in 2009, that is presently under review by the Lake County Board.**

Priority Concerns Assessment

Based on input from the public, local units of government, and state agencies, the Water Plan Advisory Committee has determined that the following priority water concerns will be addressed in the updated **and amended** Lake County Local Water Management Plan:

1. Increased Development Pressures – Erosion Control on Construction Sites, Road Management, Cumulative Impacts, Shoreline Erosion Control
2. Enforcement of Existing Land Use Laws and Use of Best Management Practices in Development Activities and Forest Management Activities
3. Storm Water Management
4. Wastewater Management - Non-Conforming Sewage Treatment Systems, Surface and Groundwater Contamination, Drinking Water Quality
5. Natural Resources Education on Water/Land Issues
6. Lake and Stream Water Quality, Water Quantity and Biological Integrity
7. Supportive of Total Maximum Daily Load (TMDL) research project efforts **and will work with landowners to complete objectives and goals identified in the TMDL Implementation Plans (BMP projects/education)** on north shore streams.

Item #4 above includes the support of Lake County for waste-water management infrastructure improvements proposed and being considered for funding for the Stewart River area and Silver Creek Township.

Furthermore, Lake County recognizes the importance of dealing with issues and priority concerns on a watershed basis and will continue to work on a watershed basis whenever appropriate. The Water Plan Advisory Committee has identified six “high priority watersheds” on which to focus a major portion of their work efforts to address priority water concerns. In general, these “high priority watersheds” are subject to increased development pressure, have more intensive land use, and/or may have steep gradients through lacustrine heavy red clay deposits. The Beaver River and Knife River have also been designated as impaired water bodies for excess turbidity on the 2010 - 303 (d) Total Maximum Daily Load list. These six “High Priority Watersheds” include:

- a. Beaver River
- b. Kawishiwi River
- c. Knife River
- d. Skunk Creek
- e. Stewart River
- f. Lake Superior

On-Going Programs Addressed in Plan

The Water Plan Advisory Committee realizes the importance and value of continuing the following programs and activities due to their past successes and their close relationship to priority concerns:

1. Natural Resources Education -
 - a. ENVIROTHON Competition (9th-12th grade)
 - b. Natural Resources Field Days (6th grade)
 - c. Lake County Demonstration Forest Project
 - d. Lake County Property Owner’s Resource Guide
 - e. Wastewater Treatment Classroom Presentations
 - f. Lake County Fair Booth Display
 - g. Earthwork Contractor’s Workshop
 - h. Hazardous Waste Recycling Program
2. Work with Cities, Townships, and County on Erosion & Sediment Control Measures
3. Assist Two Harbors in implementing the Two Harbors Storm Water Management Plan
4. Implement components of both the Lake Superior Basin Plan and Rainy River Basin Plan that are approved locally.
 - a. Support White Iron Chain of Lakes Association’s efforts to establish and expand a water quality condition monitoring program in the Kawishiwi Watershed.

Priority Issues Not Addressed in Plan

Some priority water management issues will not be addressed in the updated plan due to budget limitations or because other agencies are adequately dealing with them.

Therefore, the priority concerns listed below will not be included in the **amended 5-year** work plan:

1. Wetlands Management – adequately covered by the Minnesota Wetland Conservation Act as administered by the Lake County Land Use Department with technical assistance provided by the Lake County Soil and Water Conservation District and Minnesota Board of Water and Soil Resources.
2. Exotic Species – adequately covered by Minnesota Sea Grant and Minnesota Department of Natural Resources.
3. Air Pollution Contaminants – largely a regional and national issue and therefore beyond the scope of local efforts.
4. Recreational Surface Water Use – largely a state and federal issue.
5. Unsealed Wells – the Lake County Soil and Water Conservation District has a cost-share program to assist in properly sealing unused wells.
6. Water Quality Monitoring – state agencies such as MPCA and DNR are presently conducting limited monitoring efforts.

Priority Concerns - Goals and Objectives

Overall Goal: Maintain and improve both surface and groundwater quality and quantity through sound ecosystem management.

Components of the Overall Goal include:

1. Education and Information
2. Natural Resources Planning and Practices
3. Administration

Lake County recognizes the importance of a comprehensive, multi-faceted approach to meeting our overall goal. Education is a key component and will inform users of water in Lake County of the importance of the water resource and promote a stewardship ethic. Natural resource planning will be based on using sound scientific data and applying the best available techniques. The planning component will facilitate the protection of natural resources while at the same time recognizing broader human needs and interests. The administration component will include the refinement of public policy and local regulations, and enforcement.

Objectives to achieve the overall goal include:

- Objective 1: Promote and Implement Sound Land Use Practices
- Objective 2: Promote Proper Use and Disposal of Household Hazardous Wastes
- Objective 3: Improve the Management and Maintenance of Individual Sewage Treatment Systems
- Objective 4: Coordinate Local Government Efforts to Address Surface and Ground Water Pollution Problems
- Objective 5: Implement a Natural Resources Education Program that instills a Stewardship Ethic

Objective 6: Administer the Lake County Local Water Management Plan in an Efficient and Cost-Effective Manner

Implementation Program
5 Year Work Plan: 2011 - 2015

Objective 1: Promote and Implement Sound Land Use Practices

1. Partner with the Lake County Planning & Zoning Department to conduct Earth Work Contractors Workshops.
Timeline: Every 2-3 Years
Responsibility: Lake County SWCD / Water Plan / Lake County Planning & Zoning
Cost Estimate: \$1,500

2. Participate on the Knife River Forest Stewardship Committee.
Timeline: Annual
Responsibility: Lake County SWCD / U of MN Extension
Cost Estimate: \$500

3. Assist Two Harbors in implementing the Two Harbors Storm Water Management Plan and the Two Harbors Urban Forest Management Plan.
Timeline: Annual
Responsibility: Lake County SWCD / Water Plan
Cost Estimate: \$500

4. Field inspections on construction sites for compliance with erosion control and storm water management controls.
Timeline: Annual
Responsibility: Lake County SWCD
Cost Estimate: \$1,500

5. Assist the Lake County Planning Commission on land use issues related to water quality such as erosion and sediment control, storm water management, and wetlands conservation.
Timeline: Annual
Responsibility: Lake County SWCD
Cost Estimate: \$1,500

6. Assist the Lake County Planning & Zoning Department and Lake County

Attorney on enforcement of the Lake County Land Use Ordinance.

Timeline: Annual
Responsibility: Lake County SWCD
Cost Estimate: \$500

Note: Lake County recognizes the program document, “*Guidance Specifying Management Measures for Sources of Non-Point Pollution in Coastal Waters*” as a resource tool for implementing BMPs in urban-new development applications.

Implementation Program – 5 Year Work Plan: 2011 – 2015 (cont.)

7. Work with City, Township, and County Departments to ensure they are using sound erosion control measures.
Timeline: Annual
Responsibility: Lake County SWCD
Cost Estimate: \$500
8. Provide financial assistance to clean up old dump sites/illegal dump sites in Lake County.
Timeline: As-Needed Basis
Responsibility: Lake County Solid Waste Department
Cost Estimate: \$1,000 per year
9. Monitor private wells near old dump sites where feasible and practicable.
Timeline: As-Needed Basis
Responsibility: Lake County SWCD
Cost Estimate: \$200 per year
10. Review city and county ordinances for adequate soil erosion and storm water management provisions and other water quality provisions.
Timeline: Annual
Responsibility: Lake County SWCD
Cost Estimate: \$500
11. Encourage private well water quality testing on an annual basis.
Timeline: Annual
Responsibility: Lake County SWCD
Cost Estimate: \$200
12. Encourage the development of a set of guidelines to evaluate cumulative impacts of development on water resources.
Timeline: Annual
Responsibility: Lake County SWCD / Water Plan Advisory Committee / Lake County Planning & Zoning
Cost Estimate: Unknown

13. Provide technical and financial assistance to LGUs, agencies, organizations, and landowners to implement erosion control and water quality improvement Best Management Practices with special emphasis for High Priority Watersheds and/or Impaired Waters with TMDL Implementation Plans.

Timeline: Annual
Responsibility: Lake County SWCD
Cost Estimate: Project Specific

Implementation Program – 5 Year Work Plan: 2011 – 2015 (cont.)

Objective 2: Promote Proper Use and Disposal of Household Hazardous Wastes

1. Promote use of the Lake County Recycling and Household Hazardous Waste Program.

Timeline: Annual
Responsibility: Lake County SWCD
Cost Estimate: \$100

2. Make recommendations for improvement to the Household Hazardous Waste program to the Solid Waste Officer.

Timeline: Annual
Responsibility: Water Plan Advisory Committee
Cost Estimate: \$100

Objective 3: Improve the Management and Maintenance of **Subsurface** Sewage Treatment Systems

1. Hand out “*Septic Systems Owner’s Guides*” with each **Subsurface** Sewage Treatment System Permit.

Timeline: Annual
Responsibility: Lake County Planning & Zoning
Cost Estimate: **\$250**

2. Conduct Septic System Maintenance Classes.

Timeline: **Every 3 Years**
Responsibility: U of MN Extension
Cost Estimate: \$300

3. Provide education on **SSTS** regulations - newspaper articles; copy of *Lake County Property Owner’s Resource Guide* to all new property owners.

Timeline: Annual
Responsibility: Lake County Planning & Zoning / Lake County SWCD / U of MN Extension

Cost Estimate: \$250

- Promote the adoption of sewage treatment system maintenance contracts on shared systems.

Timeline: Annual

Responsibility: Lake County Planning & Zoning

Cost Estimate: \$0

Implementation Program – 5 Year Work Plan: 2011 – 2015 (cont.)

Objective 4: Coordinate Local Government Efforts to Address Surface and Ground Water Pollution Problems

- Meet with Townships annually to review water quality issues.

Timeline: Annual

Responsibility: Lake County SWCD

Cost Estimate: \$500

- Develop a fund to assist local units of government and/or organizations with water quality projects related to water plan priorities.

Timeline: Annual

Responsibility: Water Plan Advisory Committee

Cost Estimate: \$1,000 per year

- Implement components of the Lake Superior Basin Plan and Rainy River Basin Plan that are approved locally.

Timeline: As-Needed Basis

Responsibility: To Be Determined

Cost Estimate: Unknown

- Promote monitoring of the physical and biological health of county lakes and streams.

Timeline: Annual

Responsibility: Lake County SWCD

Cost Estimate: \$1,000

- Serve as the Project Sponsor and provide administrative support to the Kawishiwi Watershed Protection Project initiated by the White Iron Chain of Lakes Association. In 2010, the project received \$225,000 in Clean Water Legacy Funds.

Timeline: Annual (through June 2013)

Responsibility: Lake County SWCD

Cost Estimate: Funding Provided Via Grant

Objective 5: Implement a Natural Resources Education Program that instills a Stewardship Ethic

1. Conduct an annual NATURAL RESOURCES FIELD DAYS program for 6th grade students.
Timeline: Annual
Responsibility: Lake County SWCD / U of MN Extension
Cost Estimate: \$500

Implementation Program – 5 Year Work Plan: 2011 – 2015 (cont.)

2. Assist with hosting the annual Area III ENVIROTHON Competition for high school students.
Timeline: Annual
Responsibility: Lake County SWCD / U of MN Extension
Cost Estimate: \$750
3. Develop and staff a Water Plan display booth at the County Fair.
Timeline: Annual
Responsibility: Lake County SWCD
Cost Estimate: \$200
4. Conduct secondary classroom presentations on Waste Water Treatment.
Timeline: Annual
Responsibility: Lake County SWCD / U of MN Extension
Cost Estimate: \$800
5. Distribute “*Lake County Property Owner’s Resource Guide*” and revise as needed.
Timeline: Annual
Responsibility: Lake County SWCD / U of MN Extension /
Lake County Planning & Zoning
Cost Estimate: \$200
6. Assist with the Lake County Demonstration Forest Project (**broad-based natural resources emphasis**) that includes classroom field visits, adult education tours, equipment and management demonstrations, **site development, site maintenance**, and the development of educational materials.
Timeline: Annual
Responsibility: Lake County SWCD / U of MN Extension
Cost Estimate: **\$2,000**
7. Partner with Sea Grant Extension on Non-Point Pollution Education for Municipal Officials (NEMO) and “View From The Lake” Boat Tours.
Timeline: Annual
Responsibility: Lake County SWCD / U of MN Extension

Cost Estimate: \$200

8. Participate as a member of the Arrowhead Water Quality Team to develop joint water quality education programs.

Timeline: Annual

Responsibility: Lake County SWCD / U of MN Extension

Cost Estimate: \$250

Implementation Program – 5 Year Work Plan: 2011 – 2015 (cont.)

Objective 6: Administer the Lake County Local Water Management Plan in an Efficient and Cost-Effective Manner

1. Prepare Annual Report of Accomplishments.
2. Conduct Water Plan Advisory Committee Meetings.
3. Prepare Natural Resources Block Grant Application - Lake County on E-Link.
4. Report Accomplishments on E-Link.
5. Provide Updates to the Lake County Board / Lake County SWCD.
6. Maintain Financial Records / Prepare Annual Budgets.

Timeline: Annual

Responsibility: Lake County SWCD

Cost Estimate: \$8,000

Appendix:

Priority Concerns Scoping Document
Water Issues Survey w/Results