

# **Koochiching County**

## **Local Water Management Plan**

### **December 2012 Update**

**Duration: 2007 – 2017**

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## ACRONYMS

|              |   |
|--------------|---|
| <b>ACOE</b>  | Army Corps of Engineers                             |
| <b>BMP</b>   | Best Management Practices                           |
| <b>BWSR</b>  | Board of Water and Soil Resources                   |
| <b>DFO</b>   | Department of Fisheries and Oceans                  |
| <b>DNR</b>   | Department of Natural Resources                     |
| <b>EDA</b>   | Environmental Data Access                           |
| <b>EPA</b>   | Environmental Protection Agency                     |
| <b>ESD</b>   | Environmental Services Department                   |
| <b>FRCG</b>  | Forest Resources Council Guidelines                 |
| <b>ISTS</b>  | Individual Sewage Treatment System                  |
| <b>KCHD</b>  | Koochiching County Health Department                |
| <b>KCWMP</b> | Koochiching County Water Management Plan            |
| <b>LWMP</b>  | Local Water Management Plan                         |
| <b>MDH</b>   | Minnesota Department of Health                      |
| <b>MOE</b>   | Ministry of the Environment                         |
| <b>MPCA</b>  | Minnesota Pollution Control Agency                  |
| <b>NEMO</b>  | Non-point Education for Municipal Officials         |
| <b>NPDES</b> | Non-point Pollution Discharge Elimination Standards |
| <b>NPS</b>   | Non-Point Source                                    |
| <b>NRCS</b>  | Natural Resources Conservation Service              |
| <b>OHWL</b>  | Ordinary High Water Level                           |
| <b>OMH</b>   | Ontario Ministry of Health                          |
| <b>OMNR</b>  | Ontario Ministry of Natural Resources               |
| <b>ORVW</b>  | Outstanding Resource Value Water                    |
| <b>PCSD</b>  | Priority Concerns Scoping Document                  |
| <b>QA/QC</b> | Quality Assurance/Quality Control                   |
| <b>RBWRC</b> | Rainy Basin Water Resource Center                   |
| <b>ROSS</b>  | Rainy On-site Sewage Study                          |
| <b>RRCC</b>  | Rainy River Community College                       |
| <b>SSTS</b>  | Subsurface Sewage Treatment System                  |

|               |   |
|---------------|---|
| <b>SWCD</b>   | Soil and Water Conservation District              |
| <b>TEP</b>    | Technical Evaluation Panel                        |
| <b>TMDL</b>   | Total Maximum Daily Load                          |
| <b>VNP</b>    | Voyageurs National Park                           |
| <b>VSLFMG</b> | Voluntary Site-Level Forest Management Guidelines |
| <b>WMPAC</b>  | Water Management Plan Advisory Committee          |
| <b>WRC</b>    | Water Resources Center                            |

# KOOCHICHING COUNTY WATER MANAGEMENT PLAN

## Introduction

This is an update to the 2007 KCWMP. That Plan was developed by the Water Management Plan Advisory Committee (WMPAC) in concert with ESD staff. The WMPAC had six citizen members and eleven agency and county representatives, two from SWCD staff and board, ESD, NRCS, DNR, MPCA, County Health Department, one County Commissioner and expert counsel from BWSR staff. This Committee worked hard, long and cooperatively with ESD staff to produce a Water Plan that fits the needs of Koochiching County.

The WMPAC and Koochiching County understand that the majority of surface waters in Koochiching County that have been sampled, meet or exceed current water quality standards for conventional pollutants, with the exception of the documented impairment for turbidity of the Little Fork River. Mercury impairments have been identified in streams, rivers and lakes within the county as they have across Minnesota. The Environmental Protection Agency (EPA) approved the Minnesota Pollution Control Agency's state-wide Mercury Total Maximum Daily Load (TMDL) and reduction plan.

The mercury TMDL identifies that atmospheric mercury deposition is uniform across the state and is responsible for over 99% of the mercury that finds its way into fish through the process of bioaccumulation. The reduction plan identifies a role for the State and Federal governments to control emissions from various sources. Comprehensive Local Water Management Plans play little to no role in the reduction of mercury pollution.

Comprehensive Local Water Management Plans can address conventional pollutants, including but not limited to nutrients, sediments, bacteria and other generally recognized constituents of non-point source (NPS) pollution. Broad categories of activities that can address NPS include information and education, technical assistance, conservation practices and administration and enforcement of laws, rules, statutes and ordinances that can protect water quality. Increasing the knowledge base by additional monitoring of water resources, inventories of land use activities and assessment of the effects that those land use activities have on water resources will help shape future water quality protection discussion and actions.

Minnesota Statutes Chapter 114D, the 2006 Clean Water Legacy Act defines water quality restoration as: actions, including effectiveness monitoring, that are taken to achieve and maintain water quality standards for impaired waters in accordance with a TMDL that has been approved by the United States EPA under federal TMDL requirements.

Chapter 114D.20 Subd. (6) identifies five priorities for addressing water quality restoration as follows:

- 1) coordinate with and utilize existing local authorities and infrastructure for implementation;
- 2) Can be implemented in whole or in part by providing support for existing or ongoing restoration efforts;
- 3) Most effectively leverage other sources of restoration funding, including federal, state, local and private sources of funds;
- 4) Show a high potential for early restoration and delisting based upon scientific data developed through public agency or citizen monitoring or other means;
- 5) Show a high potential for long term water quality and related conservation benefits.

The statute also addresses water quality protection activities by as far as practicable, employing the priorities listed above to prevent waters from becoming impaired and to improve the quality of waters that are listed as impaired but do not have an approved TMDL.

The 2007 update of the Koochiching County Comprehensive Local Water Management Plan has identified six priority concerns that have relevance to both protecting water resources and addressing the Little Fork River's turbidity impairment. There may be differences in the degree of emphasis of particular activities or specific priority locations, but until the TMDL study of the Little Fork is completed and a specific implementation plan is developed, the suite of actions identified in the CLWMP is generally accepted as having a beneficial impact on water quality. The objectives and actions of the LWMP may also be adapted to any additional water quality impairments that may be identified through monitoring and assessment activities.

## EXECUTIVE SUMMARY

In 2007 the Koochiching County Local Water Management Plan was updated by a sixteen-member Water Management Plan Advisory Committee led by Richard Lehtinen, Koochiching County Environmental Services Director. The purpose of the planning process was to develop a plan of work that would protect and enhance surface water, groundwater and related land resources within Koochiching County. The Advisory Committee developed a process designed to incorporate input from citizens, local, state, federal and Canadian units of government, and to develop a plan that was consistent with local, state and federal plans and controls. This document is a 5 year update of the 2007 plan. Requests for comments were mailed to more than 20 local, state and federal agencies. Only 3 comments were received.

The Committee used as a starting point the Rainy River Basin Plan, prepared by MPCA, and the second generation County Water Management Plan. By deriving the new Plan from these existing plans, the Committee was assured the new plan would address issues relevant to both the county and the state. The Committee identified issues it believed ought to be included in the new plan. These issues were then compressed into general categories. From these general categories the Committee proceeded to develop goals, objectives and action plans.

The Committee, after sifting through the Basin Plan, the Local Water Plan and the results of a survey conducted for this project, developed a set of priority concerns which the Plan would address. These priority concerns are:

1. Erosion
2. Subsurface Sewage Treatment Systems
3. Education/Collaboration
4. Monitoring
5. Protection of Water Quality
6. Forestry

With these priority concerns, the Committee developed a total of fourteen goals, three for Erosion, one for SSTS, one for Education, three for Monitoring, four for Water Quality and two for Forestry. It also created forty-six objectives and seventeen action plans. All these elements included ongoing activities of SWCD, ESD and state agencies and activities that were either new or given higher emphasis which qualified them as High Priority Concerns.

The 2007 Plan was reviewed by local, state, federal, Canadian and cities in Koochiching County as well as adjacent counties. This level of review assured the Committee that the Plan is consistent with the plans of other pertinent local, state and regional plans. Other plans do not have to be amended in order for this Plan to be adopted and implemented.

## **CONTINUATION OF THE PRIORITY CONCERNS FOR THE 2007 – 2017 PLAN**

All priority concerns point in one direction: water quality. Maintaining or enhancing existing water quality is the overriding goal of all priority concerns. The six priority concerns identified in this report attempts to segregate the concern for water quality into logical and discrete categories. Even though some of the priorities overlap they do offer a focus from which to derive goals, strategies and implementation measures. The six priority concerns are:

1. Erosion
2. Individual Sewage Treatment Systems
3. Education/Collaboration
4. Monitoring
5. Protection of Water Quality
6. Forestry

These concerns were developed by the WMPAC.

### **Erosion**

Erosion is one of the key contributors to poor water quality. It is a concern for Rainy Lake and for the three major rivers in the county, Rainy, Big Fork and Little Fork. It is also a concern for all the smaller rivers and lakes.

This Plan will support:

- Cost share for erosion control on private land
- Technical assistance to property owners is provided by the Soil and Water Conservation District (SWCD), the Natural Resources Conservation Service (NRCS), the Department of Natural Resources (DNR), and the Minnesota Pollution Control Agency (MPCA)
- Best Management Practices for agricultural operations
- Forest Resources Council Guidelines for forestry management
- Study of the Little Fork River “impaired water” due to turbidity
- The Little Fork River / Big Fork River paired river study
- Increased emphasis on shoreland protection by encouraging native vegetation and discouraging lawns up to the shoreline
- Implementation of National Pollution Discharge Elimination Standards (NPDES)
- Consider use of NEMO (Nonpoint Education for Municipal Officials) to determine cumulative impacts of runoff due to development
- Best Management Practices for residential and commercial construction, stormwater management, road construction and hydrologic modification contributing to bank instability.



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

SSTS makes up a category of its own because there are several grant programs and major activities that fit into this area. It is generally acknowledged that faulty septic systems constitute the greatest manmade threat to water quality in the Rainy River Basin. Point sources of pollution were a major problem several decades ago but are now under strict permit requirements. Nonpoint sources, such as SSTS, now constitute the greatest threat.

- The Jackfish Bay Sewer Project has been completed so the county is currently putting its attention to the rest of Rainy Lake from Tilson Bay to Dove Island, and also Rainy Lake's islands
- The county is also researching the idea of extending sewer and creating a sewer district that would include areas south of Int'l Falls such as Papermakers Colony, Meadowview and other areas.
- The county adopted an SSTS ordinance in 2008. Updates to the ordinance will be made as needed
- Implementation of a Water Quality Cooperative, or other administrative structure, to be responsible for maintenance, repair and construction of new SSTS is still under consideration
- Support the development of Performance Standards for SSTS which would be used for a wide range of types SSTS and have a wider range of effluent quality standards to apply depending on a property's size, soil type and remoteness from surface water
- Combine effort with St. Louis County in finding solutions to SSTS problems in and around VNP

The Board of Commissioners has passed a resolution making the extension of centralized sewer east to Dove Island its top priority.

## **Education/Collaboration**

Education is a key component of any Water Management Plan. We all need to be educated about water. It is well known that Minnesotans cherish their water. They want to know how to maintain or enhance their water fronts, their surface water and their groundwater. Education efforts will be made in a variety of ways. LBF High School currently does water monitoring on the Big Fork River. This is a great educational tool that may be expanded to other rivers in the county. There has been discussion regarding creation of a Water Resources Center (WRC) where information could be stored, shared, etc. If created, the WRC will be an international center absorbing information from both Minnesota and Canadian sources. It is important to note that 65 percent of the Rainy River Watershed is in Ontario. Collaboration between Minnesota and Ontario is fundamentally important to protection of the Rainy Basin's water quality.

- Seek funding for the WRC to further its principal objectives to
  - a) Monitor the Basin's water quality,
  - b) Manage collected data,

- c) Disseminate collected data in informational reports,
- d) Support citizen-based water quality programs such as River Watch
- Emphasize education over regulation (e.g., voluntary use of alternative standards for shoreline development)
- Prepare informational brochures on groundwater, water quality monitoring, shoreland vegetation and others
- Encourage MN DNR, MPCA, BWSR, Dept. of Health, Voyageurs National Park, Ontario Ministry of Natural Resources and Ontario Office of the Environment, Department of Fisheries and Oceans, Rainy River First Nations to disseminate informational reports, brochures and other educational materials
- Convene the Water Management Plan Advisory Committee at least one time each year to review progress on implementing the WMP 2007 – 2017.
- Promote natural vegetation for shoreland and alternative standards for shoreland development
- Provide information about the hazards of using surface water for drinking and promote safe treatment options and alternatives.

### **Monitoring**

Monitoring is important because it requires the active pursuit of information to develop a deeper understanding of the water resource. Generally, water quality in the Rainy Basin is considered “good” as compared to nationally accepted water quality measurement standards and to other geographic areas in Minnesota. There is information, enough to draw conclusions about the general quality of Koochiching County waters. But no body of water, except for the Big Fork River, has been systematically studied to the point where a baseline has been established. The Big Fork River has been systematically monitored by the Big Fork and Littlefork High Schools and guided by volunteer expert, Richard Lacher. The WMP will seek to expand water quality monitoring efforts.

- Continue water quality monitoring of the Big Fork River
- Create systematic water quality monitoring programs for Rainy River, Little Fork River, Rapid River, Rat Root River and Rainy Lake in cooperation with the Water Resources Center
- Encourage citizen water quality efforts
- Support funding of a Volunteer Water Monitoring Coordinator position at Rainy River Community College
- Seek funding for surface water studies
- Do inventories, as a form of monitoring, of wells in Koochiching County and of unused, unsealed wells
- Encourage high schools to commit to doing long term water quality monitoring consistent with MPCA requirements, in cooperation with the Water Resources Center
- Establish water quality baselines for Rainy Lake, Rainy River and the Little Fork River

- Utilize and build from the comprehensive Rainy Lake characterization study, organized by Voyageurs National Park, done in 2004
- Support studies of exotic species on Rainy Lake and other bodies of water as appropriate
- Support studies of cyano-bacteria (blue green algae) toxicity in Rainy Lake
- Rely on Rainy Lake's status as an Outstanding Resource Value Water (ORVW) to justify funding of studies and programs designed to enhance Rainy Lake's water quality
- Encourage the conduct of nutrient loading studies of Koochiching County's lakes and rivers.

### **Protection of Water Quality**

Protection of water quality refers mostly to impacts of construction on water quality. Most construction projects in Koochiching County have the potential to affect wetlands. Wetlands are more thoroughly addressed in the Koochiching County Wetland Flexibility Plan. The WMP will address Priority Concerns that are particularly related to impacts associated with man-made development projects.

- Promote planned, environmentally sensitive development in Koochiching County, designed to ensure good water quality
- Preserve and enhance native vegetation on shoreland
- Seek funding for wetland restoration where appropriate
- Promote use of alternative standards for shoreline development
- Follow local zoning and shoreland ordinances (e.g., setbacks, vegetation removal, etc.) in riparian areas to protect the shore impact zone
- Require site constraints analysis prior to designing residential or commercial/industrial projects
- Seek continued State support of Koochiching County's Wetland Flexibility Plan
- Insist that one size fits all is not appropriate to wetland mitigation in Minnesota
- Achieve flexibility in siting wetland replacement by allowing replacement for Koochiching County projects anywhere in Minnesota
- Do not require wetland mitigation be the same type of wetland as the type being affected
- Avoid adverse impacts on water quality from aggregate mining and quarrying
- Assist farmers in manure management
- Encourage frequent use of the Technical Evaluation Panel to evaluate projects that will affect wetlands
- Continue to have the SWCD provide technical assistance to Koochiching County cities and property owners
- Consider setting local thresholds for water quality that are stricter than national or state standards.

## **Forestry**

Forestry is an important component of the Water Management Plan. SWCD will work with state and county governments to assure that this plan is part of their overall program.

This Plan will support:

- Preparation of Forest Stewardship Plans for private property owners
- Distribution of trees throughout the county in SWCD's tree sales program
- Collaboration with federal and state agencies and the private sector in helping to assure Koochiching County has healthy, productive and sustainable forests
- Promotion of forestry practices that protect water quality
- Promotion of the use of Voluntary Site-Level Forest Management Guidelines on private lands to protect water quality (e.g., riparian buffers, roads and culverts, stream crossings, etc.)
- Provide forest management education to non-industrial private forest landowners

## **WATER MANAGEMENT PLAN GOALS, OBJECTIVES AND ACTION PLANS**

### **A. Erosion**

**Goal 1: Carry out activities and programs that are an ongoing function of the SWCD office, NRCS and Land and Forestry.**

Objective #1: Continue to pursue and support cost share programs for erosion, provision of technical assistance to property owners with erosion problems, dissemination of best management practices to area farmers and dissemination of Forest Resource Council Guidelines to private property owners of forest lands.

Action Plan:

1. Priority: High
2. Activities: Process cost share applications for erosion control projects for private property owners. Apply for grants to fund erosion control projects.
3. Responsibility: Soil and Water Conservation District (SWCD) has the primary responsibility in cooperation with the Natural Resources Conservation Service (NRCS). The Board of Water and Soil Resources (BWSR) regional office plays a secondary role, as does the Koochiching County Lands and Forestry.

Objective #2: Seek additional funding sources to address erosion problems on both private and public lands.

Action Plan:

1. Priority: Medium
2. Activities: With the ever-decreasing amount of general dollars coming in to the local offices, the SWCD and ESD must adapt to increasing amount of grant program dollars available to continue to provide landowners with financial assistance to address erosion problems/concerns.
3. Responsibility: SWCD and ESD

**Goal 2: Support MPCA's efforts to do a TMDL Study of both the Big Fork and LittleFork Rivers.**

Objective #1: Support and participate in MPCA's TMDL study of the BigFork and Littlefork Rivers to determine the causes of potential impairment and actions that may reduce those impairments.

Action Plan:

1. Priority: Medium

2. Activities: The SWCD will support the TMDL planning effort and may provide technical support for the actual plan development with financial assistance from the MPCA. Both the Littlefork and Bigfork Rivers have completed the 2 year intensive monitoring effort to start the process of developing a TMDL. The MPCA is currently finalizing the reports.

3. Responsibility: MPCA has primary responsibility with planning support from the SWCD and ESD.

Objective #2: Support and participate in MPCA's paired river study of the Big Fork and Little Fork Rivers.

Action Plan:

1. Priority: Medium

2. Activities: Where applicable, the SWCD will contract with the MPCA to complete watershed assessment work for chemical monitoring of the Big Fork and Littlefork Rivers.

3. Responsibility: SWCD

**Goal 3: Apply specific measures to improve shoreland protection in order to protect against erosion and to benefit wildlife habitat.**

Objective # 1: Follow shoreland protection standards as described in the Koochiching County Shoreland Management Ordinance.

Action Plan:

1. Priority: High

2. Activities: Continue to enforce setback requirements, vegetative clearing, grading, filling and other regulations in shoreland areas of the county by following existing ordinances.

3. Responsibility: ESD is responsible for enforcing the county's land use and shoreland ordinances.

Objective # 2: Update the county's shoreland and zoning ordinances to keep up with changing shoreland regulations.

Action Plan:

1. Priority: High
2. Activities: Work collaboratively with SWCD, DNR and other agencies to keep up with ever changing regulations and provide the highest level of protection against erosion.
3. Responsibility: ESD is responsible for updating the county's land use and shoreland ordinances using input from the Planning Commission, SWCD and others.

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

**Goal 1: Assist residents in bringing SSTS into compliance and continue to replace systems that fall into the Imminent Threat to Public Health (ITPH) category.**

Objective # 1: Complete the 2<sup>nd</sup> half of the original Rainy On-Site Sewage Solutions (ROSS) Project by providing sewer service to the residents between Tilson Bay and Sha Sha Point on Rainy Lake. This project has been renamed to the Island View Sewer Project.

Action Plan:

1. Priority: High
2. Activities: In 2009 Koochiching County hired SEH Engineering to design a sewer extension project from where the current Jackfish Bay Sewer Project ended at Tilson Creek to the end of Highway 11 East at Sha Sha Point. The design was completed in 2011 and since that time the county has been seeking financial assistance from various sources. The County Board of Commissioners has passed a resolution making this project the # 1 priority in the county.
3. Responsibility: The Environmental Services Department (ESD), Island View Sewer Committee and County Board.
4. Timeline: The timeline for this project depends entirely on when funding is obtained. The goal is to complete the project as soon as possible but it is unlikely to happen before 2017 and could be even later.
5. Cost: Koochiching County has a contract with SEH for a total cost of \$405,000 for the design work. Approximately \$370,000 of this money has already been spent. The county received \$100,000 for the

project from the state bonding bill in 2011. Total project costs are estimated at \$15,000,000.

Objective # 2: Research, design and seek funding for sewer line extension to areas south of Int'l Falls. Design and construct the project if feasible.

Action Plan:

1. Priority: High
2. Activities: In 2010 a group of residents approached the City of Int'l Falls and Koochiching County asking for assistance in obtaining water and sewer to the Papermakers and Meadowview areas. The city would only consider the project if the area was annexed. Annexation was voted down so the county created a Papermakers Sewer Committee and is now looking into the feasibility of extending municipal sewer to those area and others.
3. Responsibility: The Environmental Services Department (ESD), Papermakers Sewer Committee and County Board.
4. Timeline: The timeline for this project is unknown. It will depend a great deal on when funding is obtained.
5. Cost: There are no cost estimates for this project at this time.

Objective # 3: Continue an alliance with St. Louis County to find sewer solutions to all areas around and within Voyageurs National Park.

Action Plan:

1. Priority: High
2. Activities: In 2010 Koochiching and St. Louis Counties joined forces to create the Voyageurs National Park Clean Water Joint Powers Board (VNPCWJPB). The JPB is seeking solutions to the sewer issues in Ash River, Crane lake, Island View and Kabetogama.
3. Responsibility: The JPB consists of 2 commissioners from each county. Staff from both counties and representatives from each area make up the advisory committee.
4. Timeline: This is an ongoing project that will likely continue for a number of years. The overall project consists of many smaller projects. After one is completed the next will be started. Completion of projects hinges on financial assistance.
5. Cost: Overall cost of completing all the smaller projects is estimated to be at least \$40,000,000. A significant amount of money has been



put forth by each county and several hundred thousand dollars of funding has been obtained.

Objective # 4: Obtain additional grant or loan money to help low income households bring their failing SSTS into compliance.

Action Plan:

1. Priority: High
2. Activities: In 2012 the county was granted a small amount of money from the MPCA to assist low income households with non-compliant systems.
3. Responsibility: ESD and SWCD will be responsible for administering the program.
4. Timeline: depending on funding availability this may or may not be an ongoing project.
5. Cost: There is no direct cost to the county or SWCD for this program.

Objective # 5: Educate the public regarding SSTS.

Action Plan:

1. Priority: High
2. Activities: Create an education program that will reach out to the public regarding wastewater treatment.
3. Responsibility: ESD and SWCD will work collaboratively to accomplish this goal.
4. Timeline: A base program is expected to be completed during 2013 and will be an ongoing effort thereafter.
5. Cost: Some of the cost for this program will be covered by grant money. The remainder will be covered by the ESD budget.

Objective # 6: Prepare county wide performance standards for effluent treatment.

Action Plan:

1. Priority: Medium
2. Activities: Koochiching County believes that SSTS rules should be based on performance of systems and not generalized prescriptive

standards like those used in Chapter 7080. The county would like to develop performance standards based on geology, lot size and other parameters.

3. Responsibility: ESD with County Board approval.
4. Timeline: This project is not as high on the priority list as others and will be on an “as time permits” basis.
5. Cost: Initial costs will be minimal.

### **C. Education / Collaboration**

#### **Goal 1: Emphasize education and collaborative ventures to allow residents and visitors alike to be good stewards of the county’s water.**

Objective #1: Provide general education and technical assistance to landowners/users in Koochiching County.

Action Plan:

1. Priority: Medium
2. Activities: Assist interested individuals or groups with Best Management Practices (BMPs) that are appropriate within the counties watersheds.
3. Responsibility: SWCD and ESD

Objective #2: Develop a Civic Engagement Outreach program for the Bigfork and Littlefork watersheds with financial assistance from the MPCA.

Action Plan:

1. Priority: High
2. Activities: Develop, implement, and evaluate a Civic Engagement Plan which includes conducting planning meetings to achieve MPCA desired outcomes within the Bigfork and Littlefork watersheds. A trusted communications network will be developed with landowners within the watershed that demonstrates clear outreach of goals and future projects to the landowners. Any technical documents developed related to these watersheds will be reviewed by the Civic Engagement planning group.
3. Responsibility: SWCD

Objective #3: Coordinate water quality restoration and protection within the Rainy River Basin.

Action Plan:

1. Priority: High
2. Activities: Coordinate with all counties within the Rainy River Basin to identify areas that these local water management plans can work together. Assist with the update of the 2004 Rainy River Basin Plan. The SWCD will work collaboratively with local partnerships to identify or foster projects to be include the States Biennial Budget Request for the BWSR.
3. Responsibility: SWCD

Objective #4: Bi-national coordination among groups and organizations to promote communication and engagement throughout the Rainy River Basin.

Action Plan:

1. Priority: High
2. Activities: Establish and support a bi-national watershed coordinator to work with local citizens, groups, and organizations to enhance local planning, implementation, monitoring, and reporting of watershed improvement activities. This position will facilitate networking opportunities, expand the reach of local initiatives, and link local watershed activities to regional/international initiatives to promote watershed-wide communication and collaboration.

Supporting and enhancing the ongoing development and capacities of the International Multi-Agency Working Arrangement (IMA) will also be a major component of this work. Multiple activities, including assisting the IMA Working Group and TAC with development of a core monitoring program could be accomplished through this effort.

3. Responsibility: SWCD will work with multiple groups including neighboring SWCDs and the Lake of the Woods Water Sustainability Foundation to accomplish this objective.

## D. Monitoring

**Goal 1: Establish a county-wide, watershed, condition monitoring program for surface water consistent with the Rainy River Basin Condition Monitoring approach.**

Objective #1: Continue to support and assist the Big Fork River Board River Watch monitoring program.

Action Plan:

1. Priority: Medium
2. Activities: This objective is a major component of the Big Fork River Boards yearly activities that it supports. The SWCD and ESD also financially support this effort and provide technical assistance when needed.
3. Responsibility: Big Fork River Board, SWCD, & ESD

Objective #2: Develop new monitoring programs for each of the watersheds in Koochiching County by partnering with local organizations such as existing River Boards to ensure monitoring efforts have local involvement and buy-in.

Action Plan:

1. Priority: Medium

2. Activities

This objective must partner with neighboring counties where applicable to ensure programs cover entire watersheds. Each program will be locally led, include a local commitment, and have a monitoring plan which identifies specific goals and objectives of the program. This is a broadly scoped, ambitious water quality monitoring program. It is important because its goal is to identify “baseline” conditions for all significant surface water in the Rainy Basin. Waters in the basin that have been sampled meet or exceed state and federal standards for quality (except for turbidity in the Little Fork River and mercury in a variety of other surface waters). By establishing “baseline” conditions for all major surface water, any changes in water quality can be detected, and corrected if deemed appropriate.

International waters such as Rainy Lake and Rainy River would benefit from bi-national, coordinated monitoring. This approach is already being taken in Lake of the Woods. Bi-national collaboration is also encouraged for the Rainy Basin’s tributaries as water from both Minnesota and Ontario affect Rainy Lake, Rainy River and Lake of the Woods. In the center of all this monitoring, hopefully, will be the Rainy Basin Water Resources Center.

3. Responsibilities

MPCA should lead and coordinate the monitoring program on the Minnesota side of the Rainy Basin. On the Ontario side it is likely that the Ontario Ministry of Natural Resources (OMNR) would organize the monitoring program. ESD and SWCD should be strong supporters of this effort as should other state, federal and Canadian agencies. RRCC

must necessarily be actively involved if only through its status as the Water Resources Center. Citizens and schools also will need to participate in a massive monitoring program.

**Goal 2: Support funding for further studies of aquatic invasive species and of cyanobacteria toxicity on Rainy Lake and other Rainy Basin lakes as appropriate.**

Objective #1: Recognizing that the lead agencies to conduct these studies are DNR, MPCA, VNP, OMNR and the Ontario Ministry of Health, this plan anticipates that additional aquatic invasive species and sources of toxicity need to be studied in the Rainy River Basin

Action Plan:

1. Priority: Low

2. Activities

There is recent evidence of aquatic invasive species and of cyanobacteria toxicity on Rainy Lake. This plan supports continued monitoring of such species by MPCA and other entities. ESD and SWCD are unlikely to be directly involved in these detection activities.

3. Responsibility

DNR and MPCA are responsible for detecting aquatic invasive species and cyanobacteria although other agencies both from Minnesota and Ontario will be involved. These agencies include State Dept. of Health, Fish and Wildlife Service, EPA and VNP from Minnesota and OMNR and the Ontario Ministry of Health (OMH) from Ontario.

**Goal 3: Evaluate groundwater quality and quantity.**

Objective #1: Retrieve and analyze the States database on wells in Koochiching County and prepare reports on how these wells are describing the condition of aquifers, groundwater quality and quantity.

Action Plan:

1. Priority: Low

2. Activity

SWCD and ESD will request access to the State's data base on wells. They will seek grant money to hire someone to analyze the data and to prepare a report describing the findings.

3. Responsibility

SWCD and ESD will be primarily responsible with technical help from the Minnesota Department of Health (MDH).

## **E. Protection of Water Quality**

### **Goal 1: Ensure the quality of water in the Koochiching County portion of the Rainy River Basin is maintained or improved.**

#### Objectives:

- a. Work with other counties and Canada to protect water quality within the Rainy Basin.
- b. Bring all septic systems, over time, into compliance to help assure the quality of Rainy basin waters is being improved.
- c. Encourage the retention or planting of native vegetation along the shoreline to protect wildlife habitat and to discourage lawns, impermeable materials, and others with the intent to improve the quality of Rainy basin waters.
- d. Partner with the State Department of Health to prepare wellhead protection plans.
- e. Take actions to reduce local sources of mercury and other toxic materials from polluting the county's waters by continuing the bi-annual collection of hazardous waste, by collecting for safe disposal, mercury thermometers and by publishing educational materials about mercury and other toxic material.
- f. Provide for basin-wide application for the MPCA's non-degradation regulations.
  - 1) This objective calling for rigorous implementation of the State-wide Non-degradation Rules (Minnesota Rules 7050.0185) is intended to serve as an interim measure to prevent any degradation to current watershed health, pending development of a water quality baseline for all lakes, rivers and streams in the basin.
  - 2) When the existing quality of the stream, river or lake (receiving water) is unknown, efforts should be undertaken to establish and document the present water quality prior to setting permit discharge limits.
  - 3) Permit effluent limits should include consideration of cumulative effects from all inputs (point and non-point) for the watershed.
  - 4) Ultimately, comprehensive monitoring should provide baseline information and information needed to establish quantitative goals based on current and desired future conditions for lakes, rivers and streams within the basin.

g. Utilize stormwater runoff evaluation methodologies such as the Non-point Education for Municipal Officials (NEMO) in evaluating community-wide impacts of runoff.

Action Plan:

1. Priority: High

2. Activities

ESD will need grant money to pay the cost of bringing all septic systems into compliance. Both ESD and SWCD along with DNR will take steps to assure there is wide spread retention of native vegetation and fewer lawns being put in. ESD will work with the MDH to prepare wellhead protection plans. Communities, such as International Falls may benefit from the preparation of community-wide stormwater runoff plans. MPCA's non-degradation regulations are useful to the Rainy Basin because water quality exceeds thresholds for degraded water. Koochiching County needs to continue its household hazardous waste collection program, its mercury collection program and its mercury and other toxic materials education program.

3. Responsibilities

Both ESD and SWCD have primary responsibility to implement these objectives in partnership with MPCA, DNR, DOH, other counties and Canadian agencies.

**Goal 2: Utilize Koochiching County's Wetland Flexibility Plan as the primary implementing plan for wetlands, consistent with the County's Comprehensive Land Use Plan. (Note: Wetland Flexibility Plan was developed collaboratively with SWCD, ESD, MPCA, BWSR, DNR and the Corps of Engineers)**

Objectives:

- a. Seek funding for wetland restoration and creation, and apply for wetland bank status as deemed appropriate by SWCD, BWSR and the Army Corps.
- b. Promote wetland mitigation standards that reject a "one size fits all" assumption and acknowledges the current wetland stewardship practiced by over 80 percent counties.
- c. Allow wetland mitigation sites anywhere in Minnesota for loss of wetland in Koochiching County.
- d. Allow flexible wetland replacement as to wetland type.
- e. Encourage frequent use of the Wetlands Technical Advisory Committee to work with landowners in mitigating wetland impacts.

f. Support stream restoration as a mitigation for wetland impacts.

Action Plan:

1. Priority: Medium

2. Activities

Koochiching County has identified wetlands as a high priority issue because over-regulation of wetlands will have adverse impacts on development potential. Almost every development project is affected by wetlands and sometimes the presence of wetlands even precludes development. The Water Plan is not the document upon which wetlands action is based. It is the Wetlands Flexibility Plan that this Water Plan defers to.

3. Responsibilities

ESD and SWCD are primarily responsible at the local level. BWSR and the Army Corps of Engineers have primary responsibility at the State and Federal levels. DNR is also involved in wetland issues but more directly responsible for surface waters.

**Goal 3: Offer technical assistance to help property owners avoid detrimental impacts on water quality and promote projects which make use of or restore natural vegetation on shoreland areas.**

Objectives:

a. Maintain as an ongoing activity technical assistance to residents and property owners by ESD, SWCD, NRCS.

b. Work with state and federal agencies to provide assistance when appropriate to residents and property owners.

Action Plan:

1. Priority: Medium

2. Activities

These are ongoing activities of ESD, SWCD and the Natural Resources Conservation Service (NRCS).

3. Responsibilities

ESD, SWCD, NRCS have responsibility at the local level and MPCA, DNR and BSWR at the State level.

**Goal 4: Promote environmentally responsible new development in Koochiching County.**



Objectives:

- a. Adopt a new Zoning Ordinance during 2007 which sets higher development standards than those currently in place.
- b. Require a constraints analysis prior to designing residential or commercial/industrial projects with the primary purpose to avoid adverse impacts on wetlands and on water quality.
- c. Encourage projects which respect the characteristics and suitability of the site for which a development project is being proposed.

Action Plan:

1. Priority: Low

2. Activities

This goal and objectives anticipate the adoption and implementation of the new Koochiching County Development Ordinance, which will include Zoning, Subdivision and Subsurface Sewage Treatment Systems. ESD will be responsible for implementing this ordinance. The existing Zoning Ordinance dates back to 1975.

3. Responsibility

ESD will implement this whole section.

**F. Forestry**

**Goal 1: Continue to provide technical assistance for forestry.**

Objectives:

- a. Continue SWCD's tree sales program to encourage the proliferation of native trees throughout Koochiching County.
- b. Encourage SWCD, in conjunction with Minnesota Extension, to provide forestry management and other forestry-oriented education.
- c. Offer preparation of Forest Stewardship Plans for private property owners by contracted foresters.
- d. Encourage SWCD to support programs and activities which promote multiple uses of wood and forestland.

Action Plan:

1. Priority: Low

2. Activities

SWCD has responsibility to conduct a forestry program for private property owners. The four Objectives describe the forestry program conducted by SWCD.

3. Responsibility

SWCD is responsible for this forestry goal and objectives.

**Goal 2: Promote sustainable forestry practices on all lands within Koochiching County.**

Objectives:

A. Follow Voluntary Site-Level Forest Management Guidelines (as developed by the Minnesota Forest Resources Council) on all public and private forestlands.

b. Protect riparian areas during timber harvesting operations and road building.

Action Plan:

1. Priority: Medium

2. Activities

This is rated a medium priority rather than low because it represents a new emphasis for SWCD. SWCD in the past has not actively promoted the Voluntary Site-Level Forest Management Guidelines on private lands. These Guidelines, while voluntary, are actively followed on forest-industrial land, state, county and federally administered lands. SWCD will promote use of the Guidelines to private landowners.

3. Responsibility

SWCD will work with DNR Forestry to implement this goal and objectives.

## Appendix A

### Koochiching County Water Management Plan Implementation Schedule

| Activity                              | Timeline          | Cost          |
|---------------------------------------|-------------------|---------------|
| <b>A. Erosion</b>                     |                   |               |
| 1.1                                   | Ongoing           | \$20,000/year |
| 1.2                                   | 2013 – 2017 BBR   | \$50,000      |
| 2.1                                   | 2013 – 2017       | Unknown       |
| 2.2                                   | 2013 – 2017       | \$100,000     |
| 3.1                                   | Ongoing           | \$40,000      |
| 3.2                                   | Ongoing           | \$40,000      |
| <b>B. SSTS</b>                        |                   |               |
| 1.1                                   | 2013 – 2017       | \$15,000,000  |
| 1.2                                   | Ongoing           | Unknown       |
| 1.3                                   | Ongoing           | \$40,000,000  |
| 1.4                                   | FY 2013 – FY 2014 | \$25,000      |
| 1.5                                   | FY 2013 – FY 2014 | \$20,000      |
| 1.6                                   | Ongoing           | Unknown       |
| <b>C. Education/Collaboration</b>     |                   |               |
| 1.1                                   | Ongoing           |               |
| 1.2                                   | FY 2012 – FY 2014 | \$80,000      |
| 1.3                                   | FY 2012 – FY 2014 | \$7,000       |
| 1.4                                   | FY 2012 – FY2014  | \$100,000     |
| <b>D. Monitoring</b>                  |                   |               |
| 1.1                                   | Ongoing           |               |
| 1.2                                   | Ongoing           | \$50,000      |
| 2.1                                   | Ongoing           | Unknown       |
| 3.1                                   | Ongoing           | \$25,000      |
| <b>E. Protection of Water Quality</b> |                   |               |
| Goal #1                               | 2013 – 2017       | \$250,000     |
| Goal #2                               | Ongoing           | Unknown       |
| Goal #3                               | Ongoing           | Unknown       |
| Goal #4                               | Ongoing           | Unknown       |
| <b>F. Forestry</b>                    |                   |               |
| Goal #1                               | Ongoing           | Unknown       |
| Goal #2                               | Ongoing           | Unknown       |

## Appendix B

# KOOCHICHING COUNTY WATER MANAGEMENT PLAN 2007 – 2017 PRIORITY CONCERNS SCOPING DOCUMENT

## INTRODUCTION

### **Purpose**

Local water management plans are not required by State Statute, but grant funds from the Board of Water and Soil Resources are not awarded to counties that do not have a local water management plan. Therefore, all 87 counties in Minnesota have adopted local water management plans.

When a county decides to prepare a local water management plan, State Statutes provide detailed requirements for the process, content and authority of these plans in Statutes 103B.311 through 103B.331. Stat. 103B.311, Subd. 1 states (in part): “Each county is encouraged to develop and implement a local water management plan.” Subd. 4 identifies five requirements of a local water management plan:

- “1) cover the entire area within a county;
- 2) address water problems in the context of watershed units and groundwater systems;
- 3) Be based upon principles of sound hydrologic management of water, effective environmental protection, and efficient management;
- 4) Be consistent with local water management plans prepared by counties and watershed management organizations ...
- 5) The local water management plan must specify the period covered by the local water management plan ... at least five years but no more than ten years ...”

Back to Subd. 1, it is clearly stated that local government has a great deal of authority once it adopts a local water management plan it states, “Each county that develops and implements a local water management plan has the duty and authority to: “ ... 3) exercise any and all powers necessary to assure implementation of local water management plans.” State Statutes make it clear that local counties are empowered to set water policy and to implement goals and objectives for water.

### **County Primer**

Koochiching County has generally seen a decline in population since 1960. It is projected by the State of Minnesota to continue to decline in population through the life of this plan (see Table 1).

Table 1. 1940 to 2020 Koochiching County Population

| <b>1940</b> | <b>1950</b> | <b>1960</b> | <b>1970</b> | <b>1980</b> | <b>1990</b> | <b>2000</b> | <b>2010</b> | <b>2020</b> |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 16,930      | 16,910      | 18,190      | 17,131      | 17,571      | 16,299      | 14,355      | 13,970      | 13,580      |

Rates of population decline roughly correspond to the number of jobs at the paper mill. This is because the paper mill has about 25 percent of the total jobs in the county. It is hoped that increases in tourist-oriented jobs, location-independent jobs and other miscellaneous types of jobs might combine to give the population a bit of a boost rather than a consistent decline.

Table 2 shows the decline in population between 1990 and 2000 occurred in the cities and not in the unincorporated portion of the county. It is generally believed the 2,252 decline in International Falls is overstated. The 1990 Census counted many people as permanent residents when, in fact they were “temporary” construction workers working at the paper mill expansion project from 1989 to 1991. When they moved, International Falls’ population declined and this decline was reflected in the year 2000 Census.

Lake and riverfront property attract new construction and it is along Rainy Lake, and the Little Fork, Big Fork and Rainy Rivers, that most of the county’s growth is occurring. New construction of seasonal and retirement housing could accelerate as the Hibbing – Grand Rapids – Bemidji tier continues to fill up, making Koochiching County more attractive for development.

Table 2. 1990 and 2000 Cities / County Population  
(Source: U.S. Bureau of the Census)

| <b>Jurisdiction</b>   | <b>Population</b> |              |               |
|-----------------------|-------------------|--------------|---------------|
|                       | 1990              | 2000         | Change        |
| Big Falls             | 341               | 264          | -77           |
| International Falls   | 8,325             | 6,073        | -2,252        |
| Littlefork            | 838               | 680          | -158          |
| Mizpah                | 100               | 78           | -22           |
| Northome              | 283               | 230          | -53           |
| Ranier                | 199               | 188          | -11           |
| <b>Subtotal Cites</b> | <b>10,086</b>     | <b>7,513</b> | <b>-2,573</b> |

|                       |               |               |               |
|-----------------------|---------------|---------------|---------------|
| <b>Unincorporated</b> | <b>6,213</b>  | <b>6,842</b>  | <b>629</b>    |
| <b>Total County</b>   | <b>16,299</b> | <b>14,355</b> | <b>-1,944</b> |

The dominant land use of Koochiching County is managed forest. Managed forest easily takes up about 75 percent of the county. It is important to retain long term, sustainable forests, managed both for economic production and environmental values. Agriculture plays an important land use role even though total production has declined over the years. Other land uses include urban and rural residential development. Urban development located in the cities is declining while rural residential development on the lake and rivers is increasing at a modest pace.

**Water Plan Information**

The Local Governmental Unit (LGU) responsible for the local Water Management Plan (WMP) is the Koochiching County Environmental Services Department. More intimately involved in technical administration and implementation of the WMP is the Koochiching County Soil and Water Conservation District. These two entities work together to fulfill the county’s local responsibility for WMP activities.

The original WMP was adopted in early 1995. The second, and most recent update, was adopted July 27, 2000. Progress on this WMP was delayed due to staff overload and the Board of Water and Soil Resources (BWSR) agreed to extend the deadline to July 27, 2007. It is Koochiching County’s intent to adopt the WMP, 2007 – 2017 by July 27, 2007.

**PRIORITY CONCERNS FROM EXISTING PLANS**

The Water Management Plan Advisory Committee (WMPAC) met four times in 2006, on September 27, October 25, and November 15 and December 13, with the primary purpose of identifying Priority Concerns. The Committee relied on two major documents, the “Koochiching County Comprehensive Water Management Plan, 2000 Update” and the “Rainy River Basin Plan, 2004”.

Both of these plans have lists of priority concerns regarding water in Koochiching County. WMPAC members considered priority issues from these two plans and added some of their own. This process resulted in a comprehensive list of potential Priority Concerns from which the Committee has decided to place emphasis on some and not to emphasize others.

Priority Concerns Identified by WMPAC

1. Erosion
2. Water Quality Monitoring
3. Individual Sewage Treatment Systems

4. Protection of Water Quality
5. Education
6. Forestry

This is the proposed set of Priority Concerns for the new Plan. They will be the focus of more in-depth discussion later in this Priority Concerns Scoping Document (PCSD). First, this report will describe the full number of potential issues considered by the WMPAC. The WMPAC was introduced to potential priority water plan issues to be identified in the new plan. These issues were drawn from three sources: 1) a mail back survey of agency personnel conducted by the Environmental Services Department (ESD), 2) issues prioritized in the year 2000 Koochiching County Water Plan, 3) issues identified in the year 2004 Rainy Basin Plan. The Committee was also asked to introduce additional issues which might be added. These issues are described below.

I. Water Plan Survey

| A. Most threatened             | <u># of Responders</u> |
|--------------------------------|------------------------|
| 1. streams/rivers              | 3                      |
| 2. Lakes                       | 1                      |
| 3. Wetlands                    | 1                      |
| <br>                           |                        |
| B. Water-Related Problems      |                        |
| 1. Erosion                     | 4                      |
| 2. Development pressure/impact | 3                      |
| 3. Stormwater/drainage mgmt.   | 2                      |
| 4. Declining water quality     | 2                      |
| 5. Lack of regulations         | 1                      |
| 6. Lack of enforcement         | 1                      |
| 7. clean drinking water        | 1                      |
| 8. Natural habitat destruction | 1                      |

II. Koochiching County Comprehensive Water Management Plan, 2000 Update

- A. High Priority Goals
  1. Administer and implement the Water Management Plan
    - A. re-establish the Water Plan Task Force
    - B. establish a Water Resources Advisory Committee
    - C. delegate tasks to appropriate agencies
    - D. develop a project priority list (Water Plan Committee, SWCD Board, County Board)

Analysis: This high priority goal has not been implemented

2. Encourage people to update their ISTS
  - A. continue ROSS Study
  - B. enforce local ISTS Ordinance and implement 7080

C. continue to develop the Water Quality Cooperative

Analysis: ISTS is still perceived as a high priority. The ROSS Study, while defunct, set a high priority for addressing septic problems on Rainy Lake. This remains a high priority. Performance systems, cluster systems and others, controlled and administered by a Water Quality Cooperative, are one of the next high priority areas to be pursued by the County.

3. Administer the Wetlands Conservation Act
  - A. continue to work on the Wetland Flexibility Plan
  - B. provide technical assistance to county residents, municipalities, local businesses
  - C. assist the Technical Evaluation Panel in wetland identification and management

Analysis: Wetland Flex Plan was adopted in 2000. Providing technical assistance remains a high priority and the TEP is just becoming active.

4. Reduce erosion and sedimentation
  - A. work with landowners on lake and river shoreland
  - B. protect and improve water quality through riparian buffers

Analysis: SWCD does work with landowners on lake and river erosion control projects. The County has not effectively implemented riparian buffers.

5. Extend sewer service to Jackfish Bay area

Analysis: The Jackfish Bay Sewer Collection System is under construction.

6. Attempt to improve land use practices
  - A. use BMPs for agriculture, industry and development along lakes and streams
  - B. follow Minnesota Forest Resources Council's Voluntary Site Guidelines for timber harvesting

Analysis: Generally, these objectives are being implemented

B. Moderate Priority Goals

1. Attempt to monitor groundwater quality
2. Assist in protecting wellheads
3. Do an unused, unsealed well assessment
4. Continue to monitor closed landfills
5. Assist in removal of underground storage tanks

Analysis: Monitoring groundwater quality would be a huge task. Wellhead Protection plans will be prepared when the State Dept. of Health is



ready. The County is unlikely to do an abandoned well assessment. Closed landfills are no longer under county jurisdiction. Removal of underground tanks is done under the guidelines of MPCA.

### C. Low Priority Goals

1. Maintain balance between recreational use and environmental quality
2. Establish reasonable floodplain limits
3. Safely manage storm water
4. Continue to monitor industrial pollution

Analysis: Some of these goals might be considered for a high priority. All of them require more than the local level of government for implementation.

## III. Rainy River Basin Plan 2004

- A. Overall goal: maintain or improve the existing conditions consistent with local plans, for streams, rivers and lakes in the Rainy River Basin
- B. Address failing Individual Sewage Treatment Systems (ISTS) and unsewered communities, especially along Rainy Lake and rivers and streams
  1. Develop performance standards that could allow surface discharge
  2. Develop an administrative system to ensure that performance-based systems are properly maintained
  3. Extend centralized sewer where environmentally and economically feasible
  4. Support the continued development of new ISTS technology and management options
- C. Develop monitoring programs to provide information about the water quality of Rainy Lake and the Rainy, Rat Root, Big Fork and Little Fork Rivers
  1. Support the continued operation and expansion of the Rainy River Community College partnership
    - a. establish and expand a Rainy River Basin Water Resources Center at RRCC <sup>1)</sup> to monitor water quality and aquatic ecology, <sup>2)</sup> to manage water resources data, <sup>3)</sup> to release public information about water management needs and resources, <sup>4)</sup> to establish a Rainy Basin River Watch
    - B. encourage development of River Watch programs for rivers currently not monitored
    - C. establish baselines for water quality throughout the basin
    - D. disseminate water quality information

- D. Prevent or reduce erosion and run-off where feasible and remediate existing and future erosion and run-off problems
- E. Analyze and maintain or improve groundwater quality in the Rainy River Basin and protect surface water drinking supplies
- F. Medium priority goals
  - 1. Protect the special qualities of Rainy Lake that enabled its Outstanding Resource Value Water (ORVW) classification
  - 2. Protect wetland types and functions throughout the basin and recognize the potential of wetlands to maintain or improve water quality
- G. Low priority goals
  - 1. Ensure planned and environmentally sensitive development and ensure shoreland development proceeds in a manner that protects the culture, environment and economy of the area
  - 2. Support the forest products industry
    - A. encourage employment of VSLFM Guidelines and effectiveness monitoring
    - B. encourage training opportunities for loggers and forest professionals
    - C. development of a “statement of support” for efforts to maintain forest land uses and management
    - D. support communications to small private landowners to broaden awareness of the Sustainable Forest Incentive Act

After considering issues from the above three sources and any additional issues raised by Committee members, the Committee compiled a long list of issues from which to identify the priority concerns that will be in the new Plan.

The WMPAC discussed and found potentially relevant for the New Water Plan the following priority concerns:

- 1. Survey found rivers and streams to be most threatened**
- 2. Survey identified water-related problems to be:**
  - a. Erosion (both river and Rainy Lake)
  - b. Development pressure and impact on water quality
  - c. Some concern for stormwater and drainage management and declining water quality
- 3. High priority to establish a Water Plan Task Force**  
Note: The establishment of the WMPAC accomplishes this priority
- 4. Individual Sewage Treatment Systems are a high priority**

- a. Failing systems are a primary threat to maintaining good water quality
- b. Rainy Lake east of Jackfish Bay needs to have a Sewage Feasibility Study pursuant to provision of centralized sewage or clustered ISTS both to the mainland and islands
- c. Prepare a local ISTS ordinance
- d. Seek funding to be able to form a Water Quality Cooperative
- e. Seek ISTS solutions for the rest of Koochiching County

**5. Wetlands protection**

- a. Continue to implement the Koochiching County Wetlands Flexibility Plan and Ordinance
- b. Provide technical assistance to county residents, municipalities and local businesses
- c. Maintain an active Technical Evaluation Panel

**6. Erosion and sedimentation**

- a. Work with landowners on erosion and sedimentation control on both lakes and rivers/streams
- b. Promote shoreland and riparian buffers with the use of native vegetation
- c. Discourage planting of lawns to the shoreland and riparian edge

**7. Maintain good land use practices to avoid adverse impacts on water quality**

- A. Promote Best Management Practices (BMP) for agriculture, commercial/industrial and residential development near lakes and rivers/streams
- b. Seek forest practices certification

**8. Water quality monitoring**

- a. Develop / maintain monitoring programs to provide information about water quality of Rainy Lake and the Big Fork, Little Fork, Rainy, Rapid and Rat Root rivers
- b. Encourage the development of volunteer River Watch programs for rivers currently not monitored
- c. Establish baselines for water quality throughout the Basin
- d. Support funding for the Little Fork / Big Fork paired river study
- e. Assure water quality information is disseminated

**9. Groundwater quality and surface water drinking supply**

- a. Prepare a well inventory pursuant to monitoring groundwater quality
- b. Help prepare groundwater protection plans with the State Department of Health
- c. Do an unused and unsealed well assessment
- d. Do protection Surface Water Assessment Plans for private surface water providers

**10. Education**

- a. Agency (federal, state, local) partnership with Rainy River Community College
- b. Support the expansion of RRCC's Rainy River Basin's Water Resources Center (WRC)
- c. Promote the WRC as an international repository and dispenser of information and knowledge
- d. Promote high school participation in water quality monitoring
- e. Seek funding to help the WRC accomplish its four objectives:
  - monitor water quality and aquatic ecology
  - manage water resources data
  - release information to the trained and lay public about water management needs and resources
  - establish a Rainy Basin River Watch

#### **11. Rainy Lake**

- a. Protect the special qualities of Rainy Lake that enabled its classification as an Outstanding Resource Value Water (ORVW)

#### **12. Wetland Types and Functions**

- a. Protect wetland types and functions, as identified in the Koochiching County Wetland Flexibility Plan, throughout the Basin and recognize the ability of wetlands to maintain or even improve water quality

#### **13. Development**

- a. Ensure planned and environmentally sensitive development
- b. Ensure shoreland development proceeds in a manner that protects the culture, environment and economy of the area

#### **14. Rainy River**

- a. Support efforts to fund studies of Rainy River on such topics as erosion, hydrology, river profile, effects of peaking
- b. Support efforts to control the practice of peaking in order to protect spawning areas and to prevent other potentially adverse impacts

#### **15. Forestry**

- a. Support sound forest management practices that allow for harvest but avoid adverse environmental impacts on water quality

### Additional Priority Concerns

#### **1. Water Quality**

- a. Define water quality generally
- b. Prepare several "definitions" of water quality depending on the standard being sought

#### **2. Impaired Waters**

- a. Seek funding for study of the Little Fork River Impaired Water
- b. Implement an action plan for the Little Fork River
- c. Identify other Impaired Water in Koochiching County

## Appendix C

### RESPONSE TO COMMENTS ON THE “KOOCHICHING COUNTY WATER MANAGEMENT PLAN 2007 – 2017 PRIORITY CONCERNS SCOPING DOCUMENT”

By Richard Lehtinen

This report documents all comments received on the Koochiching County PCSD. The comments are grouped by comments with a Comment-Response format. The Response indicates whether or not a change in the PCSD text will be made.

1. Fisheries and Oceans Canada (2/26/07) – Neville Ward

Comment: DFO supports the plan, especially efforts to control the practice of peaking.

Response: Comment noted.

Comment: Page 14, change “Ontario Ministry of Oceans and Fisheries” to “Fisheries and Oceans Canada”.

Response: Where appropriate, this change will be made.

2. Fisheries and Oceans Canada (3/5/07) Carolyn Bowie

Comment: The PCSD has been assigned a file number KE-07-0197 and has been assigned to a fish habitat biologist to review.

3. Ontario Ministry of Natural Resources (2/23/07) John Van den Broeck

Comment: Likes the Analysis, Limitations, Status format in the first part of the report. Thinks pages 10-13 should be put in the front of the report, but he would not want to lose portions of the front section.

Response: This PCSD will be an Appendix in the Final Plan. The PCSD will be re-formatted as suggested. The existing format was done in order to track chronologically the development of priority concerns by the WMPAC.

Comment: Would like the first part of the PCSD to be re-formatted to have two headings under Introduction: 1) Purpose of Document, 2) Background.

Response: The Final Plan will be formatted as John Van den Broeck recommends.

Comment: I think you’ve hit all the issues. It’s actually ambitious.

Response: That’s encouraging.

4. Andrew Wright, WMPAC member (2/20/07)

Comment: County should more actively enforce ISTS regulations and be proactive in extending sewer to high population areas.

Response: This issue is clearly expressed in the PCSD and will be elaborated on in the Final Draft.

Comment: How will drought affect water quality and what procedures will the County follow to deal with drought conditions?

Response: The County Water Management Plan will not address drought. That task is done by water providers.

Comment: Mining can have long term effects on water quality. Mining operations should be required to have provisions for clean up and removal of contaminants.

Response: All mining operations under permit are required to have reclamation plans.

Comment: The County should export water and consider use of public waters for commercial and industrial uses.

Response: This comment has not been raised by any other person or agency. The WMPAC may want to consider this issue in the Final Plan.

5. Voyageurs National Park (3/5/07) Kate Miller

Comment: Page 3, please consider nutrient loading in lakes and rivers as a priority concern.

Response: Nutrient loading will be added as an issue under the category 4 heading of Protection of Water Quality.

Comment: Page 12, Monitoring, VNP conducted a baseline survey of water quality on Rainy Lake in 2004. A manuscript is in development for publication.

Response: This will be added as a bullet under Monitoring in the final PCSD.

Comment: VNP applauds efforts to provide sewage treatment systems, the outreach and education efforts identified in the PCSD, and cooperative monitoring efforts among local, county, State, Federal and citizen partners.

Response: This expression of positive support is appreciated.

6. Minnesota Pollution Control Agency (2/26/07) Lisa J. Thorvig  
Comment: MPCA has five recommendations for the Local Water Management Plan: 1) how will the County participate in addressing impaired water, developing TMDL pollutant allocations and implementing TMDLs for impaired waters; 2) include maps of impaired waters; 3) commitment of the County to submit data it collects to MPCA; 4) plans for monitoring as yet unmonitored waters; 5) actions and timing of the County to reduce pollutants causing the impairment.

Response: These five recommendations will be addressed in the LWM Plan but need not be addressed in the PCSD. The PCSD does identify impaired waters as a priority concern.

Comment: Since MPCA is leading the way on reports for mercury, the County should only address pollutants other than mercury in its LWM Plan.

Response: There is only one impaired water other than those affected by mercury and that water is turbidity in the Little Fork River. This impairment is currently being studied by MPCA and the LWM Plan will fully support the findings and recommendation of this study.

Comment: The County should access the water quality section of MPCA's Environmental Data Access (EDA) to find water quality monitoring data which may be useful to the LWM Plan. The County should consider impaired waters as a top priority.

Response: The County will look into the EDA site and has identified the impaired Little Fork River as a high priority concern.

Comment: The County should begin to implement a county-wide ISTS program in 2007 (the county is currently administering 7080 in shoreland areas).

Response: The County does implement 7080 county-wide and has since 1996.

Comment: The County should be prepared to adopt an ordinance (i.e., local ISTS Ordinance) that implements proposed rule changes for the 2008 construction season.

Response: Koochiching County is working on a Local ISTS Ordinance which should be ready for review by May 2007.

7. Minnesota Department of Natural Resources (2/28/07) Kevin Peterson

DNR recommends seven additional concerns for the Recommendations section on pages 10 – 13. All of these items will be added to the final PCSD. These items are:

1. Under Education / Collaboration, p. 11 add:



- emphasize education over regulation (e.g., voluntary use of alternative standards for shoreline development)
- promote natural shoreline and alternative standards for shoreline development
- provide information about the hazards of using surface waters for drinking and promote safe treatment options and alternatives

2. Under Protection of Water Quality, p. 12 add:

- promote use of alternative standards for shoreline development
- follow local zoning and shoreland ordinances (e.g., setbacks, vegetation removal, etc.) in riparian areas to protect the shore impact zone

3. Under Forestry, p. 13, add:

- promote forestry practices that protect water quality
- Promote Voluntary Site-Level Forest Management Guidelines on private lands to protect water quality (e.g., riparian buffers, roads and culverts, stream crossings, etc.)

8. State Department of Health (1/31/07) Beth Kluthe

The DOH recommends as a priority concern “Source water protection for the City of International Falls and resorts located on Rainy Lake”. DOH did a study and published a report on this topic about four years ago. We will add a reference to this study in the Protection of Water Quality section of the PCSD.

9. Board of Water and Soil Resources (2/28/07) Jeff Hrubes

Comment: Forest land management should be a priority concern.

Response: Forest land management is addressed under the category of Forestry and will be addressed in more detail in the Final Plan.

Comment: Surface water quality as it relates to development adjacent to riparian areas should be a priority concern.

Response: Development practices in shoreland areas are addressed under the category of Protection of Water Quality and will be addressed in more detail in the final Plan.

Comment: Erosion and sedimentation should be a priority concern.

Response: Erosion is one of the principal concerns in the PCSD. Under Erosion the following bullet point will be added:

- Best Management Practices for residential and commercial construction, stormwater management, road construction and hydrologic modification contributing to bank instability.

## Appendix D

### KOOCHICHING COUNTY WATER MANAGEMENT PLAN ACCOMPLISHMENTS 2007-2012

Significant progress has been made in implementing the 2007-2017 Koochiching County Water Management Plan. Below is a breakdown of some of the accomplishments made in each of the 6 highest priority categories.

#### **Erosion:**

- Numerous bank stabilization projects.
- Major clearing of the Rat Root River. This should allow better flow and less flooding.

#### **Subsurface Sewage Treatment:**

- Completed installation of a sewer line to Tilson Creek that included approximately 250 homes.
- Adopted the *Koochiching County Subsurface Sewage Treatment Ordinance* in August 2008.
- Formed the Island View Sewer Committee and completed a design for the remainder of the lake area.
- Did a desktop review of septic systems and visited all properties in the Island View Sewer Project area.
- Formed the Papermakers Sewer Committee to look at the feasibility of providing sewer in that area.
- Continue to enforce Chapter 7080, review septic system designs and issue permits for new systems.

#### **Education/Collaboration:**

- Continue to work with state and federal agencies such as the MPCA, DNR, BWSR and ACOE to assure that water related projects follow the proper procedures.
- Continue education practices with children and adults such as classroom visits, special event booths and Environmental Education Days.
- Continue working with students at the LBF and Bigfork High Schools in the Big Fork River water monitoring program.
- Administer the Big Fork River Board and the Rainy Rapid River Board to discuss and move forward on specific needs and the overall health of the rivers.
- Reestablished the Littlefork/Rat Root River Board.

**Monitoring:**

- Collaborated with the MPCA in their Intensive Watershed Monitoring program on the Littlefork and Big Fork Water Sheds.
- Continued water monitoring efforts on the Big Fork River and opened discussion regarding the same type of program for the Rainy and Littlefork Rivers.

**Protection of Water Quality:**

- Major upgrade by the North Koochiching Area Sanitary District (NKASD) to the wastewater treatment facility in Int'l Falls.
- Continued efforts to provide properly functioning septic systems or sewer hook up to more homes.
- Worked to identify stressors found during the MPCA water monitoring program.

**Forestry:**

- Koochiching County Lands and Forestry adheres to the Voluntary Site Level Forest Management Guidelines that were put together by the Minnesota Forest Resources Council (MFRC). The guidelines address such things as proper water crossing, forest road development, timber harvesting near streams and lakes, pesticide use and many other water quality related issues.
- Completed 18 Forest Stewardship Plans for non-industrial private forest landowners covering 2,081 acres.

SWCD and ESD staff feels like a lot has been accomplished in the past 5 years. Some of the more recent funding applications that have been approved will help the county in its efforts to complete existing projects and develop new ones.