

Minnesota Department of Natural Resources
Northeast Region • 1201 East Highway 2 • Grand Rapids MN • 55744



May 31, 2013

Ron Shelito, North Region Supervisor
MN Board of Water and Soil Resources
1601 Minnesota Drive
Brainerd, MN 56401

RE: Crow Wing County Water Plan

Dear Mr. Shelito:

The MN Department of Natural Resources (DNR) has reviewed the Crow Wing County Local Comprehensive Water Plan.

Our review form and comments are enclosed.

The plan adequately addresses the priority concerns. We have made suggestions to improve clarity and implementation of the plan objectives.

Sincerely,

A handwritten signature in blue ink, appearing to read "Craig L. Engwall".

Craig Engwall
Northeast Regional Director
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craig.engwall@state.mn.us

cc: Heidi Lindgren, Brainerd area hydrologist

Final Draft
Crow Wing County Local Water Management Plan Update

Agency/organization **MN Department of Natural Resources**

Submitted by: (name) Craig Engwall, Northeast Regional Director
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(email) craig.engwall@state.mn.us

Submission deadline: June 2, 2013

1. The MN Department of Natural Resources has reviewed the final draft of the water management plan for Crow Wing county. The following is submitted for the Board's consideration regarding the priority concerns selected:

The plan does not violate any statutory or rule requirements administered by our agency.

The plan violates M.S. _____ administered by our agency. *Explanation of statute violation:* _____

The plan violates M.R. _____ administered by our agency. *Explanation of rule violation:* _____

2. The MN Department of Natural Resources recommends the board:

Approve the entire plan as submitted

Disapprove the entire plan as submitted

Disapprove parts of the plan as cited: _____

3. The MN Department of Natural Resources would like to offer the following comments for the board's consideration when reviewing and acting on this local water plan update:

See attachment for detailed comments

General comments:

The 2013 water plan bases implementation priorities on a watershed framework and demonstrates the continued leadership of Crow Wing County in designing performance-based outcomes that protect water resources in the county. This is an excellent venture into watershed-based planning.

This plan outlines a broad suite of strategies to achieve water plan goals. These strategies range from education and technical assistance to financial incentives to promoting private forest land conservation easements.

Comments noted

Active land management including fee title acquisition and land exchanges is also a key strategy for achieving many of the protection outcomes in this plan, especially as related to large tracts of private/industrial forest lands in the county.

- An objective or action statement referencing active land management techniques (fee title acquisition, conservation easements, and land exchanges) should be added under one or more of the priority concerns so this important water protection tool can be applied where appropriate to meet the overall water quality protection goals of the water plan. This would capture, for example, the strategy used by the County in the recent purchase of Potlatch lands along the Mississippi River using the legislatively appropriated Outdoor Heritage Fund.

Comments noted.

Detailed comments:

Priority Concern – Aquatic Invasive Species

Pg 12, Objective 1

- Lake associations can fulfill a unique and complementary role in addressing AIS issues through their network of private landowners and relationships with private lake access points. While DNR and County efforts focus on public access points, lake associations are well positioned to promote AIS awareness and best management practices for commercial and backyard access points.
- Reward 2nd sentence to read:
“In addition to mailings and meetings, often the next step for volunteers to get involved is by taking an AIS volunteer training class given by the DNR Watercraft Inspection Program.”

Comments noted. Change made to 2nd sentence.

Pg 14, Objective 3, Action 1

- Providing good guidance on setting district boundaries for LIDs is essential to make these as successful as possible toward achieving the purposes outlined in Minnesota Statute 103B.511 and Minnesota Rule 6115.0900 for each LID established. Specifically, considerable thought needs to go into defining district boundaries so as to “...include a sufficient amount of the lake's watershed and related land to develop and implement feasible solutions to the problems the district intends to address.” DNR is available to assist the County with evaluating or identifying district boundary scenarios in early stages of LID formation.

Crow Wing County (CWC) appreciates the DNR's willingness to comment on proposed LID boundaries. Recently, the LID boundaries have been adopted have been the ones proposed by the LID and approved by CWC and DNR. Most of CWC's LID only encompass riparian properties (likely because they are primarily focused on in-lake issues such as treating AIS). However, in the future, during the LID pre-application meetings, CWC will recommend that the association proposing the LID discuss their proposed LID boundary with the DNR prior to submitting an application.

Pg 14, Objective 4

- DNR Public Waters Work and Water Appropriation Permits contain conditions outlining equipment decontamination and infested water transport protocols. We offer this as educational and outreach information as well.

Crow Wing County (CWC) is more than willing to distribute any of this educational information to CWC permits that are near (or involved) public waters and/or water appropriations (such as conditional use permits for gravel pits, etc.)

Pg 14, Add New Objective

- Perhaps there is also a place for a policy objective and action that addresses routine activities of the County that could reduce the unintentional spread of AIS related to Water Safety Patrol, County Highway Dept water crossing inspection, maintenance, and repair, and other activities contracted by the County. The DNR has internal policies and procedures that would be readily transferrable for application by local governments.

Crow Wing County (CWC) is more than willing to pass along any DNR recommended internal policies and procedures to its various Departments to better protect against the threat of AIS.

Priority Concern: Surface Water

Pg 18 & 19, Objective 4, Action 2

- Impervious surface results in Figures 8 and 9 suggest that, for a small set of lakes (Bertha, Round, Rush, Serpent), high average imperviousness means a number of parcels must exceed the lakewide level of 10-15 percent. Is there a direct action that establishes a target goal and recommended strategy to reduce imperviousness on parcels in excess of a certain threshold, perhaps tying back to ordinance development under Action 1?

There are undoubtedly parcels on many CWC lakes that exceed the Ordinance and MN Shoreland Rules threshold of 25%. While in most cases no action can be taken to reduce this amount until the landowner applies for a land use permit, Crow Wing County plans to pursue a Clean Water Fund grant to offer a cost-share program to implement stormwater management on lots that exceed 15% impervious. This grant will focus primarily on lakes greater than 400 acres in size that have a declining water quality trend or are in a watershed that is classified as "enhance" or "enhance-protect".

Pg 20, Objective 4, Action 3

- The action statement to promote a no-net-increase in phosphorus loading from development is appropriate and important. An additional or expanded action statement should address the mitigation or abatement of phosphorus loading from existing development.

CWC is only 1 year in to our phosphorous tracking and our primary focus is on achieving no-net gain and being able to accurately track phosphorous inputs from permitted activities. Because our Ordinance performance standards for stormwater management require treatment of a 1" rain event on all the impervious on a property (existing and proposed), we hope to eventually address the issue of existing development as landowners come in for permits. We are also exploring how to measure phosphorous

loading from non-riparian properties within the watershed and are continually looking for ways to improve. We will certainly evaluate our phosphorous goals as we get further into this plan.

Pg 21, Objective 5, Action 7

- As the County has done with the Sensitive Shoreline classification, ordinances should be updated to incorporate newly delineated sensitive watershed locations as data and trend availability and analysis becomes more refined.
- DNR can provide biologic, hydrologic and geomorphologic data as it becomes available to help define healthy lakes and streams and further target sensitive watershed locations.

While a sensitive shoreland classification exists but no specific zones have been established to date, CWC uses this information as a tool for water planning as well as in reviewing potential land use applications.

Pg 22, Objective 5

- Data from our network of volunteer lake gage readers can assist with monitoring water quality and assessing trends.
- How do the actions in Objective 4 inform or guide other actions in the water plan, e.g., Objective 4 relating to Land Use and Development? Figure 12 shows a set of impaired waters within Crow Wing County. Has the County identified any specific actions that will reduce stress in the watershed that contributes to the identified impairment?

CWC's land use and water planning efforts rely heavily on data collected by programs utilizing volunteers as well as DNR and MPCA staff. It is CWC's hope that all of this available data can be funneled to and disseminated from a central source (where-ever that source may be). All of this information in addition to CWC specific data (permits, impervious surface coverage, etc.) helps drive CWC's performance-based Ordinances, policies, and procedures. Not only are performance standards being put into place, all riparian permits are being followed-up on to ensure that performance measures such as stormwater management or shoreline buffers are being effectively implemented.

Regarding the impaired waters, Crow Wing County plans to work with its neighboring counties, MPCA, and other partners to work toward identifying sources of the impairments and implementing solutions to mitigate the problems. With the addition of the specific watershed maps to the water plan, it now gives CWC a better idea of where the sources of the impairments might be and which areas to focus specific implementation practices on.

Priority Concern: Ground Water

Pg 28

- In the 1st paragraph, note that the DNR permitting threshold for water appropriation is more than 10,000 gallons per day OR 1 million gallons per year.

Comment noted. Change made.

- In the 2nd paragraph, pesticides and herbicides are identified as sources of nitrate contamination of groundwater. This statement should be revised to clarify that high nitrogen content fertilizers such as ammonia are a source of nitrate groundwater contamination. Agricultural pesticides and herbicides are an additional concern for potential groundwater contamination.

Comments noted. Changes made.

- While the objectives under this priority concern largely address groundwater quality, DNR water use data from appropriation permits and groundwater monitoring well data can be used to assess potential groundwater quantity issues.

Comment noted.

Pg 31, Objective 1

- What actions will you take to protect suitable sites for land septic application identified in Action 5 from future residential encroachment? With over 23,000 septic systems in the county, sustainability of rural wastewater management hinges on future availability of suitable lands for land application and disposal of septic. Unplanned encroachment and development of suitable lands will impact waste management costs and compromise surface and subsurface water quality. Is there an ordinance connection here to designate and protect suitable land application sites? An additional or expanded action statement should address septic management and land use planning.
- Also, an additional action statement should address on-going monitoring of soil nutrient levels at active land application sites.

It is anticipated that the items mentioned above will all be part of the assessment for current and future land application needs as it pertains to neighboring development and to water resource concerns. Since CWC plans to update its septic Ordinance by 2014, it will likely also discuss the land application issue during the Ordinance update process.

Implementation: Watershed Classification & Prioritization

Pg 47

- The Plan prioritizes implementation efforts on Protection and Enhance/Protection watersheds. It is acknowledged that this strategy maximizes results but does not preclude Enhance watershed implementation efforts. One approach to conducting measurable enhancement work is to strategically select areas of the watershed, for example, working in the headwater reaches and sequentially moving downstream. Alternatively, the accumulation of directed projects, performance-driven standards, and incentives to intercept stormwater at the individual parcel source can produce measureable benefits for diffuse watershed stressors such as stormwater runoff originating from urbanized impervious surfaces.

Comments noted.

Implementation: Border Watersheds

Pg 60

- For inflowing watersheds (those originating outside the county boundary like the Pine), what actions will you take to coordinate water planning, implementation activities, and land use discussions with the adjoining jurisdiction to ensure your goals and objectives can be achieved?
- This question would also relate to the Crow Wing River watershed summary under Implementation: Major Watershed Summary on page 57 where you identify Sibley and Mayo lakes as impaired waterbodies with the majority of their watershed located in Cass County. Holding authority over only a portion of the contributing watershed limits your ability to enact meaningful and durable enhancement actions to improve water quality in these impaired lakes. Seems like coordination with Cass County is necessary and advisable in order to develop a strategy and implement collaborative enhancement activities to improve Sibley and Mayo lakes.

Cass and Aitkin Counties are due to update their water plan within the next year or so. CWC has already had discussions with each of them to provide the background of how we conducted our GIS analysis and to offer insights as to how they might be able to coordinate not only water planning but also implementation efforts as well. In the last 5 years, there have been numerous ideas exchanged between Cass, CWC, and Aitkin Counties. Some of these include lake assessments, grants for specific border lakes, the Gull Lake micropolitan study, AIS inspection, workshops, and Lake Improvement District management. Currently, the three counties are collaborating on a septic Ordinance that is similar across all three counties. Crow Wing and Morrison also work together frequently on a number of issues, specifically nitrates and the impaired Platte Lake.

The Mississippi Headwaters Board (MHB) is another organization that has recently taken a leading role in coordinating water planning activities along the first 400 miles of the Mississippi River corridor, which includes Morrison, Crow Wing, Aitkin, Cass, Itasca, Hubbard, Beltrami, and Clearwater Counties. CWC is coordinating a grant for the MHB that uses similar GIS analysis and compiles available water quality information in order to develop a Mississippi River chapter in each of the 8 member counties' water plan. This project has already sparked extensive dialogue amongst the water planners and planning & zoning / environmental services offices.