

Executive Summary

This section is an amendment to the September 1, 2004, version of the Lincoln County Water Management Plan. It addresses the following items:

- Version and purpose of the plan;
- Description of the priority concerns that will be addressed;
- A summary of the goals and actions to be taken along with the projected total cost of the implementation program for each of the priority concerns;
- A summary of the consistency of the plan with other pertinent local, state, and regional plans and controls, and where inconsistencies are noted; and
- A summary of recommended amendments to other plans and official controls.

Amendment – September, 2009:

This amendment dated September 1, 2009, is part of the third version of the Lincoln County Water Management Plan, dated September 1, 2004. Included in this amendment:

- Preface;
- Section 1-Executive Summary; and,
- Section 4-Implementation Program.

2009 – 2013: Description of Priority Concerns and Summary of Goals, Actions and Projected Total Cost:

Priority concerns; brief summary, goal, actions and project cost are listed below. In some areas, new funding sources are included in the totals.

PRIORITY CONCERN: Groundwater Protection for the Verdi Well Field.

The Verdi Well Field is the main source of water supply for: portions of 4-counties which include most of Lincoln, and portions of Lyon, Murray, and Pipestone; have availability to move this source of water to other areas; 3,500 rural customers, 31 cities/communities, and 206 rural customers using more than one million gallons per year per customer. Future expansion, starting in 2009, for the entire Lincoln-Pipestone water supply sources in Jackson, Nobles, Yellow Medicine and Lac qui Parle counties.

The goal summary of this priority concern is to protect the public water supply from potential contaminants.

Summary of actions:

- Work on feedlot issues and encourage tillage, pesticide, nutrient management plans;
- Pilot project to implement a drainage water management project (controlled drainage);
- Conduct inspections of septic systems and continue to bring into compliance.
- Cost-share to seal abandoned wells particularly in the DWSMA;
- Promote and enroll landowners in easement programs, such as CRP/CCRP, buffer strips, and increase conservation tillage practices;

- Pursue funds from the Clean Water, Land and Legacy (CWLL) funding for Drinking Water Sources;
- LPRW to be in contact with DNR with water appropriations; and
- Provide information on importance of protecting groundwater;

Approximate cost: \$200,750/year.

PRIORITY CONCERN: Surface Water Quality Deterioration focusing on MPCAs list of TMDLs and Impaired waters. TMDL-South Branch, Yellow Medicine River for Fecal Coliform. Impaired waters include various river reaches and the following Lakes: Dead Coon, Benton, Perch, Shaokatan and Hendricks. TMDLs underway: Lac qui Parle River-Yellow Bank-Bacteria, Turbidity, and Low Dissolved Oxygen; Lake Shaotakan-Excess Nutrients; Redwood River-Fecal Coliform and Turbidity; and Minnesota River-Turbidity.

Our primary focus will be on Nutrients and Bacteria in the TMDL sites and on Impaired Waters listed by MPCA.

The goal summary of this priority concern is to restore, protect and improve the deterioration of surface water quality entering Lincoln County's lakes, rivers and streams.

Summary of actions include:

- Bring into compliance septic systems and feedlots and develop nutrient management plans to help regulate nutrients and minimize pollution;
- Assist in pursuing grants through the Clean Water, Land and Legacy and Clean Water Partnerships for watershed based activities and practices for the Yellow Medicine, Lac qui Parle, Redwood and Big Sioux Watersheds with priority given to projects with a specific TMDL/impaired water;
- Educate landowners/operators on feedlot pollution reduction, manure management, SSTSS, and BMPs; and,
- Educate landowners/operators in the TMDL project areas about the impaired water study and the need for implementation of conservation practices.

Approximate cost: \$531,250/year.

PRIORITY CONCERN: Erosion and Sediment Control on agricultural land primarily gully erosion and concentrated flow with several priority areas throughout Lincoln County including: TMDL-South Branch, Yellow Medicine River for Fecal Coliform. Impaired waters including various river reaches and lakes including: Dead Coon, Benton, Perch, Shaokatan and Hendricks. TMDL/s underway: Lac qui Parle River-Yellow Bank-Bacteria, Turbidity and Low Dissolved Oxygen; Lake Shaotakan-Excess Nutrients; Redwood River-Fecal Coliform and Turbidity and Minnesota River-Turbidity.

Reducing the volume of sedimentation, potential attached pollutants and nutrients reaching County lakes, streams, rivers and wetlands, will improve surface and ground

water quality, through implementing Best Management Practices particularly in listed priority areas.

The goal of this priority concern is to protect and preserve Lincoln County's long-term valuable soil and water resources.

Summary of actions include:

- Reduce wind and water erosion and sediment by implementing BMPs including: WSCBs, waterways, conservation tillage, terraces, CRP/CCRP, buffers, critical area plantings, filter strips, field windbreaks, living snow fences, farmstead shelterbelts, and wildlife tree plantings;
- Replace open tile intakes with alternative tile intakes;
- Provide conserving use acre contracts to individuals planting small grain for earthwork construction from August 10-September 30;
- Provide cost-share for sealing abandoned wells;
- Participate in the various watershed technical team meetings to develop monitoring and implementation plans;
- Assist in pursuing grants/funding for implementation of BMPs through the CWLL, lean Water Partnership, Ag BMP, Watersheds and BWSR. Watersheds: Yellow Medicine, Lac qui Parle, Redwood River and the Big Sioux with priority given to projects with a specific TMDL/impaired water;
- Implement BMPs in the Yellow Medicine, Lac qui Parle, and Redwood Watershed project areas where TMDLs/impaired waters are of priority and grants already in place;
- Monitor sites in Lincoln County to evaluate progress/effects on the Redwood River;
- Increase wildlife tree plantings and habitat management areas, and restored wetlands;
- Implement the Working Lands Initiative (WLI) Program and the WRP/RIM Program;
- Assist landowners with their prescribed burning, tree and prairie management to enhance wildlife habitat; and,
- Educate landowners/operators about: cost-share and implementing BMPs; buffer programs such as CCRP, RIM WLI, and filter strips; replacement of open tile intakes with alternative tile intakes; WRP/RIM programs; and the benefits of the various tree and wildlife plantings.

Approximate cost: \$999,100 - 2,357,100/year.

PRIORITY CONCERN: Lake Management Improvement (water quality) and Recreational Opportunities targeting Lake Benton, Lake Shaokatan and Lake Hendricks.

Lincoln County has six major lakes having a total water surface area of about 6,480 acres with an average depth ranging from three to twelve feet and many smaller lakes. We will focus on three major Recreational Lakes in Lincoln County, as they represent the greatest potential for additional recreational development including Lake Benton, Lake Shaokatan and Lake Hendricks.

The goal summary of this priority concern is increase recreational opportunities of Lincoln counties lakes.

Summary of actions includes:

- Provide funding for aeration systems in county lakes;
- Monitor base flow monitoring site in Lake Benton Lake for progress of phosphorus loading and chlorophyll;
- Spot treat Lake Benton Lake for curly-leaf pondweed;
- Ensure the “presence of a more diverse plant community” in Lake Benton Lake.
- Strive to reduce blue-green algae in Lake Shaokatan; and,
- Educate lake/city residents and landowners/operators on protecting lake water quality.

Approximate cost: \$4,000/year.

PRIORITY CONCERN: Surface Water Runoff and Drainage addressing runoff volume and water quality through drainage management.

In this section, we will focus on the Wetland Conservation Act, Wetland Banking and the Lincoln County Public Drainage Ditch Systems.

The goal summary of this priority concern is to improve surface water management by decreasing runoff and flooding and maintaining the drainage systems in the county.

Summary of the actions and costs include:

- Reduce flooding by restoring wetlands and increase filter strips;
- Seek funds for establishing a list of dams and repair an existing dam every three years;
- Administer the WCA Program;
- Possibly develop a wetland banking program;
- Incorporate flood control benefits in road and bridge projects;
- Enroll landowners in the CCRP/one-rod buffers;
- Direct property owners to restore 16½ foot permanent grass buffers along open ditches where required; and,
- Educate landowners/operators on buffers and WCA.

Approximate cost: \$120,000 - \$195,000/year.

Education and outreach are a part of each of the priority concerns.

With the available funding for Water Management Implementation, we will address issues that are doable with the funds we receive. Other implementation items are accomplished through other funding sources.