

Implementation Program

Amendment – September, 2009

This section establishes the implementation program for the priority concerns. The implementation program identifies the following:

- Actions to be implemented; when the action will be accomplished; responsible agencies; and cost/funding sources. Costs do not include staff time.
- If capital improvement projects are listed, they will include the following: physical components of the project-size, configuration, location; purposes of the project and relationship to the objectives; proposed schedule for project construction; expected federal, state and local costs; types of financing proposed-special assessments, valorem taxes, grants and sources of local financing proposed.

Abbreviations:

The following abbreviations represent the responsible local unit of government and/or the possible funding source for each action item.

- TF-Lincoln County Water Management Task Force
- WM-Water Management Funds
- SWCD-Soil and Water Conservation District
- NRCS-Natural Resources Conservation Service
- FSA-Farm Service Agency
- EO-Lincoln County Environmental Office
- HD-Lincoln County Highway Department
- Ext.-Lincoln County Extension
- LPRW-Lincoln-Pipestone Rural Water
- SWPJPO-Southwest Prairie Joint Powers Organization
- BWSR-Board of Water and Soil Resources
- DNR-Department of Natural Resources
- MDH-Minnesota Department of Health
- MDA-Minnesota Department of Agriculture
- MPCA-Minnesota Pollution Control Agency
- PF-Pheasants Forever
- USFWS-U.S. Fish and Wildlife Service
- SWROC-Southwest Regional Outreach Center
- LID-Lake Improvement District
- CWP-Clean Water Partnership
- EQIP-Environmental Quality Incentive Program
- State C-S-State Cost-Share
- CRP-Conservation Reserve Program; CCRP-Continuous Conservation Reserve Program
- Watersheds-includes one or more of the following: Yellow Medicine River Watershed District, LqP- Yellow Bank Watershed District and/or the Redwood-Cottonwood Rivers Control Area
- Ag BMP-Ag Best Management Practices Loan Program
- CWLL-Clean Water, Land and Legacy Amendment
- LOHC-Lessard Outdoor Heritage Council

The abbreviations in **BOLD** illustrate the lead agency under the specific actions.

Impaired Waters and TMDLs:

Minnesota's Impaired Waters and Total Maximum Daily Loads (TMDLs):

The federal Clean Water Act (CWA) requires states to adopt water-quality standards to protect waters from pollution. These standards define how much of a pollutant can be in the water and still allow it to meet designated uses, such as drinking water, fishing and swimming.

The standards are set on a wide range of pollutants, including bacteria, nutrients, turbidity and mercury. A water body is “impaired” if it fails to meet one or more water quality standard.

To identify and restore impaired waters, Section 303(d) of the Clean Water Act requires states to:

- 1) Assess all waters of the state to determine if they meet water-quality standards.
- 2) List waters that do not meet standards (also known as the 303d List) and update every even-numbered year.
- 3) Conduct TMDL studies in order to set pollutant reduction goals needed to restore waters.

Federal and state regulations and programs also require implementation of restoration measures to meet TMDLs.

MPCAs responsibilities include performing assessment activities, listing impaired waters, and conducting TMDLs in Minnesota. The agency also coordinates closely with other state and local agencies on restoration activities.

The Clean Water Legacy Act, passed in June 2006, allocates first-year funding to accelerate water monitoring, TMDL development and restoration activities throughout the state.

Impaired Waters:

Below is the MPCA 2008 Clean Water Act Section 303 (d) list of impaired waters in the county. .

<u>Reach</u>	<u>Unit ID#</u>	<u>Affected Use</u>	<u>Pollutants/Stressors</u>
Lac qui Parle River, Headwaters (Lake Hendricks to Lazarus Creek/Canby Creek)	07020003-505	Aquatic Recreation Aquatic Life Aquatic Recreation	Fecal Coliform Fish Bioassessments Turbidity
Yellow Medicine River, South Branch (County Ditch 35) Headwaters to Yellow Medicine River	07020004-503	Aquatic Recreation Aquatic Life	Fecal Coliform Turbidity
Judicial Ditch 29, T111 R44 W S16, south line to S. Branch Yellow Medicine River	07020004-550	Aquatic Recreation	Fecal Coliform
Unnamed creek	07020004-562	Aquatic Life	Fish Bioassessments
Unnamed creek	07020004-597	Aquatic Recreation	Fecal Coliform
Unnamed creek (CD34 to CE35)	07020004-600	Aquatic Recreation	Fecal Coliform
Three Mile Creek, Headwaters to Redwood River			

<u>Lakes</u>	<u>Unit ID#</u>	<u>Affected Use</u>	<u>Pollutants/Stressors</u>
	07020006-504	Aquatic Recreation Aquatic Life	Fecal Coliform Turbidity
Coon Creek, Lake Benton to Redwood River	07020006-511	Aquatic Recreation Aquatic Life	Fecal Coliform Fish Bioassessments
Benton	41-0043-00	Aquatic Recreation	Nutrient/Eutrophication Biological Indicators
Shaokatan	41-0089-00	Aquatic Recreation	Nutrient/Eutrophication Biological Indicators

The following lakes have been listed with the affected use: Aquatic Consumption with Mercury in Fish Tissue: Hendricks-41-0110-00; Dead Coon-41-0021-00; Benton-41-0043-00; Perch-41-0067-00; and Shaokatan-41-0089-00. It is MPCAs recommendation that the county address waters listed for pollutants/stressors other than mercury.

The implementation plan addresses one-impairment in the lower portion of the Minnesota River during low flow conditions. With the main sources of excess phosphorus includes wastewater treatment facilities, direct discharges of sewage, storm water and agriculture. Results from the TMDL study indicate that, with phosphorus reductions, it is possible to meet the dissolved oxygen standard in the Lower Minnesota River during low flow conditions.

Approved TMDLs-and implementation plans that have been approved by the EPA:
Yellow Medicine (South Branch) TMDL: Fecal Coliform Bacteria; Approved September 30, 2004.

Lower Minnesota River TMDL: Low Dissolved Oxygen; Approved September 28, 2004.

TMDLs Underway:

Lac qui Parle River-Yellow Bank: Bacteria, Turbidity, and Low Dissolved Oxygen.

Lake Shaokatan: Excess Nutrients.

Redwood River: Fecal Coliform; Turbidity.

Minnesota River: Turbidity.

PRIORITY CONCERN: Groundwater Protection for the Verdi Well Field.

GOAL: Protect the public water supply from potential contaminant sources due to land use activities; and establish and maintain a Wellhead Protection Plan (WHP) continuing public education and information program.

Objective: Encourage property owners to adopt tillage, chemical and nutrient BMPs for cropland within the Drinking Water Supply Management Area (DWSMA).

Action: Continue to work with current feedlot owners/operators in the DWSMA area and contact any potential new operators to discuss feedlot operations. Develop an

understanding of local drinking water issues and the benefits of implementing the wellhead protection plan.

Who: **EO, LPRW, SWCD** When: 2009-2013 Funding: \$-0-

Action: Encourage the development and adoption of tillage, pesticide and nutrient management plans on cropland within the DWSMA to reduce potential for contaminants entering the aquifer. LPRW will cost share with other local agencies for nutrient soil testing as a component of nutrient management plans. Through this process the application of commercial fertilizer will be applied at recommended agronomic rates and nitrogen management plans are implemented from cropland in the DWSMA.

Who: **EO, LPRW, SWCD**, When: 2009-2013 Funding: \$-0-

NRCS

Action: As a pilot project in the DWSMA, encourage a landowner to implement a drainage water management project (NRCS) using the new approach to controlled drainage to reduce the impacts of nitrate-nitrogen on both groundwater and surface waters and to reduce flooding potential.

Who: **NRCS, LPRW**, When: 2010-2013 Funding: \$10,000; Federal, LPRW
SWCD

Objective: Continue to upgrade septic systems in the DWSMA and encourage closing of abandoned wells.

Action: Conduct inspections of septic systems in the DWSMA and implement full compliance with state and county SSTS requirements within the DWSMA to prevent the contamination of the water supply in the DWSMA by non-complying septic systems. Continue to upgrade 5 non-complying systems per year in the DWSMA.

Who: **EO** When: 2009-2013 Funding: \$45,000; Ag BMP

Action: Provide cost-share assistance to landowners in the Verdi DWSMA and the entire Big Sioux Watershed to properly seal their abandoned wells. The Verdi DWSMA is a high priority for well sealing and sealing as funds allow.

Who: **SWCD** When: 2009-2013 Funding: WP Funds

Objective: Inventory and prioritize areas within the DWSMA for adoption of set-aside and buffer easement programs.

Action: Continue to work with property owners in the DWSMA to encourage enrollment in easement and cost-share programs such as CRP/CCRP, RIM, WRP, WHIP and adoption of buffer strips. Increase the number of acres of easement programs by 10 acres per year. LPRW will offer a \$15/acre incentive for land enrolled in the CRP in those areas identified as “high priority” in the Verdi Wellhead Protection Area (WHP).

Who: **SWCD, FSA, LPRW** When: 2009-2013 Funding: \$100,000/yr; CRP/CCRP, WHIP, RIM, LPRW Incentives

Action: Increase conservation tillage practices in the DWSMA, reducing sedimentation in the surface waters recharging the ground water. Promote Ag BMP Loans for

upgrading conservation tillage equipment to reduce erosion and runoff by targeting one landowner per year or as loan funds permit.

Who: **SWCD, NRCS** When: 2009-2013 Funding: \$50,000; Ag BMP

Objective: Protect the groundwater and the drinking water sources for the Verdi Well Field.

Action: Pursue grant funds through the Clean Water, Land and Legacy Amendment for protection of the Verdi Well Field groundwater and drinking water sources.

Who: **LPRW, SWCD,** When: 2010-2013 Funding: \$3,500 LPRW; SWCD

Action: Lincoln-Pipestone Rural Water will be in contact with DNR annually (February) to review water appropriations. The LPRW will be in continuous contact with the DNR to find other water sources and any other concerns they have throughout the year.

Who: **LPRW, DNR** When: 2009-2013 Funding: \$-0-

Action: Educate and provide information to land owners/operators on the importance of protecting groundwater from pesticides, nutrients, etc. by providing information on:

- Proper usage and rates of pesticides/herbicides through the Minnesota Department of Ag (MDA) product use requirements;
- Sealing abandoned wells and septic system upgrades;
- Feedlot pollution reduction, and the importance of proper manure management;
- CRP/CCRP, RIM, WRP, WHIP and adoption of buffer strips; and
- Conservation tillage, pesticide and nutrient management plans.

This will be done through the SWCD fair booth and web site, newsletters/releases, and individual contacts.

Who: **SWCD, EO, MDA** When: 2009-2013 Funding: \$250; Each Agency

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 listed on Pages 2-3 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.

GOAL: To restore, protect and improve the deterioration of surface water quality entering Lincoln County's lakes, rivers and streams.

Objective: Protect surface water quality from contamination caused by point and non-point source pollution and properly treat both human and animal waste.

Action: Bring into compliance approximately 30-50 septic systems/year in the Yellow Medicine River Watershed, Redwood River Watershed, and Lac qui Parle Watershed.

Who: **EO** When: 2009-2013 Funding: \$375,000/yr; CWP, Ag BMP

Action: Work with 4-5 producers/year with high priority feedlots. Priority based on size of the operation and their proximity to water. Work with engineers to survey problem feedlots and supply the producer with 2-3 options to fix pollution problems (cost-estimate included). Work with the SWCD/NRCS on possible cost-share availability.

Who: **EO, SWPJPO,** When: 2009-2013 Funding: \$50,000-\$150,000/yr; EQIP, SWCD, NRCS BWSR, Watersheds, CWLL

Action: Reduce feedlot pollution by working with 3-feedlot producers on developing nutrient management plans on 750 acres. Priority will be given to feedlot producers with 300+ animal units and producers who spread manure in sensitive areas.

Who: **EO, NRCS, SWCD** When: 2009-2013 Funding: \$3,000/yr; EQIP, Watersheds

Objective: Protect and improve existing surface water quality by addressing nutrient loading, bacteria issues, fecal coliform, and turbidity.

Action: Assist in pursuing grants through the Clean Water, Land and Legacy and Clean Water Partnerships for watershed based activities for the following watersheds: Yellow Medicine, Lac qui Parle-Yellow Bank, Redwood and Big Sioux. This is for current projects, TMDLs underway and for new TMDLs/Impaired waters projects as they are updated through MPCA in 2010 and beyond. Address pollutants/stressors in each of the affected water bodies. This would be done through the technician work groups for the Yellow Medicine and Lac qui Parle, the RCRCRA joint powers and through neighboring SWCDs.

Who: **SWCD(s), NRCS** When: 2009-2013 Funding: \$2,500/yr; SWCD Watersheds

Objective: Educate property owners, land owners/operators on the importance of protecting our surface waters from deterioration.

Action: Educate and provide BMP information to land owners/operators on water impairments and the importance of reducing nutrients and bacteria in surface water quality through newsletters, releases, SWCD web site, fair booth, and individual contacts for:

- Feedlot pollution reduction, and the importance of proper manure management;
- Upgraded SSTs; and
- Implementation of BMPs in order to reduce the nutrients and bacteria in surface water.

Who: **SWCD, NRCS,** When: 2009-2013 Funding: \$750; Each Agency
EO, Watersheds

Action: Educate land owners/operators in the Lake Shaokatan Watershed and the South Branch of the Yellow Medicine River on the TMDL Study and implementation programs through newsletters and one on one contacts.

Who: **YMRWD, SWCD,** When: 2009-2013 Funding: YMRWD, SWCD
NRCS

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 listed on Pages 2-3, 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.

GOAL: To protect and preserve Lincoln County's long-term valuable soil and water resources.

Objective: Protect and improve existing surface and ground water quality by addressing and reducing soil erosion, sedimentation and potential attached pollutants.

Action: Reduce water erosion to 5-ton or less soil loss per acre on cropland. Implement BMPs such as but not limited to (approximate footage/year):

- Terraces-2,000 feet,
- Water & Sediment Control Basin's (WSCB'S)-70 each,
- Waterways-6 acres,
- Conservation Tillage, and,
- Increase acres of buffers, filter strips and Critical Area Plantings by 20 new sites (125 acres) per year through CCRP. The entire county is a concern with priority given to areas deemed necessary by the Technical Groups in each of the watersheds.

Who: **SWCD, NRCS, FSA** When: 2009-2013 Funding: \$300,000-\$1,000,000/yr; EQIP, BWSR, CRP/CCRP, CWLL

Action: Reduce sediment loads to waters of the state throughout Lincoln County by replacing open tile intakes with alternative tile intakes. Depending on available funding approximately 25-50+ alternative tile intakes could be replaced per year.

Who: **SWCD, NRCS** When: 2009-2013 Funding: \$20,000; WM, Watersheds, CWL, CWLL

Action: Reduce wind erosion to 5-ton or less soil loss per acre on cropland selling 35,000 trees per year by implementing the following (approximately footage – per year): 1 mile-Field Windbreaks/Living Snow Fences, 10 acres-Farmstead Shelterbelts, and 20 acres-Wildlife Tree Plantings, depending on programs available.

Who: **SWCD, NRCS, FSA** When: 2009 - 2013 Funding: \$50,000-\$150,000/yr; CRP, DNR, PF, HD BWSR, DNR, PF, MN-DOT, CWLL

Action: Make the following contacts: 10-contacts in areas where MN-DOT and the County have identified for the Living Snow Fence Program/Field Windbreaks; 30-contacts to promote the tree program. Follow-up contacts on all tree projects and keep townships informed on the available tree programs.

Who: **SWCD** When: 2009-2013 Funding: SWCD

additional water quality benefits. The project is through the Lincoln, Lyon and Yellow Medicine SWCDs with the Lyon SWCD administering the project. Amount of funding is for the entire Yellow Medicine River Watershed (3-counties). Dollars include: WSCBs-\$21,000; buffer incentives-\$10,150. Grant period: February 1, 2007 thru June 30, 2011.
 Who: **SWCD, NRCS** When: 2009-2011 Funding: \$35,150; 319 Grant

Action: Through the Lower Minnesota River TMDL, implementation of the 2009 Clean Water Legacy Grant funded for the Yellow Medicine Watershed will begin. This grant is through the Lincoln, Lyon and Yellow Medicine SWCDs with the Lyon SWCD administering the grant. Amount of funding is for the entire watershed (3-counties) which includes: \$88,000-Structure practices; \$12,000-Alternative Intakes.
 Who: **SWCD, NRCS** When: 2009-2013 Funding: \$100,000; CWL

Action: Implement alternative intakes and other projects deemed necessary through the Shaokatan Sportsmen Club dollars in the Lake Shaokatan Watershed. The amount of funding is dependent on the Sportsmen Club. Funding in 2009 consists of \$30,000.
 Who: **SWCD** When: 2009-2013 Funding: \$30,000; Sportsmen Club

Action: Participate in the Yellow Medicine River Watershed technical team meetings to develop monitoring and implementation plans the team deems a priority in the watershed based on the TMDLs/impaired waters.
 Who: **SWCD, NRCS,** When: 2009-2013 Funding: YMRWD, SWCD
 YMRWD

Action: In the entire Yellow Medicine Watershed accelerate the implementation of BMPs such as sediment basins, waterways, filter strip incentive program, alternative intakes, etc. Funding is dependent on future grants specific for current and future TMDL/impaired water projects.
 Who: **SWCD, NRCS,** When: 2009-2013 Funding: \$75,000/yr; YMRWD,
 YMRWD SWCDs, CWLL

Objective: Implement Best Management Practices in the Redwood River Watershed project area. Future projects will be implemented based on future funding.

Action: Implement WSCBs and encourage enrollment of acres in the CRP/CCRP to reduce external loading from surface water runoff. Funding is for the Redwood/Cottonwood watersheds. Implementation of the CWL portion is administered through the Redwood SWCD and the 319 portion through RCRCA. Funding includes the current 2007 and 2008 CWL Grants.
 Who: **SWCD, NRCS,** When: 2009-2013 Funding: \$140,000; 319 Grant,
 RCRCA \$230,400; 319/CWL Grant, EQIP,
 CRP/CCRP, BWSR

Action: Participate in the RCRCA joint powers meetings and technical team meetings through the SWCDs for the Redwood River Watershed to develop monitoring and implementation plans the team deems a priority in the watershed based on the TMDLs/impaired waters.

Who: **SWCD, NRCS, RCRCAs, SWCDs** When: 2009-2013 Funding: SWCD, RCRCAs

Action: In the Redwood River Watershed accelerate the implementation of BMPs such as sediment basins, waterways, filter strips, etc. Funding is dependent on future grants specific current and future TMDL/impaired water projects in the watershed.

Who: **SWCD, NRCS, RCRCAs** When: 2009-2013 Funding: \$50,000/yr; RCRCAs, SWCDs, CWLL

Action: Monitor sites to evaluate progress on Lake Benton, Coon Creek and its effect on the Redwood River. Monitoring depends on future grants.

Who: **RCRCAs, EO** When: 2009 - 2013 Funding: \$10,000/yr; RCRCAs

Objective: Implement Best Management Practices in the Lac qui Parle Watershed project area. Future projects will be implemented based on future funding.

Action: In the Lac qui Parle River implement BMPs from the headwaters, Lake Hendricks to Lazarus Creek through a 2006 TMDL grant addressing turbidity. Implementation includes: 20 WSCBs for \$60,000; 50 acres of filter/buffer strips at \$50/acre per year (15-years) for \$37,500 and septic system upgrades through the SSTS low interest loan program for \$100,000. Funding is for three counties with the grant period extending through 2011. Funding for this TMDL project is through the Lac qui Parle River Watershed-CWP.

Who: **SWCD, NRCS, LqP-CWP** When: 2009-2011 Funding: \$197,500; LqP-CWP, CWLL

Action: Participate in the Lac qui Parle River Watershed technical team meetings to develop monitoring and implementation plans the team deems a priority in the watershed based on the TMDLs/impaired waters.

Who: **SWCD, NRCS, LqP CWP, Watershed** When: 2009-2013 Funding: SWCD, LqPCWP, Watershed

Action: In the Lac qui Parle River Watershed, accelerate the implementation of BMPs such as sediment basins, waterways, filter strips, etc. Funding is dependent on future grants specific current and future TMDL/or impaired water projects in the watershed.

Who: **SWCD, NRCS, LqP-CWP** When: 2009-2013 Funding: \$25,000/yr; LqP-CWP, SWCDs, CWLL

Action: In the Lac qui Parle River headwaters, Lake Hendricks 41-0110-00 to Lazarus Creek/Canby Creek #07020003-505, with the Aquatic Recreation being the impaired use and Fecal Coliform being the pollutant. Start/completion dates of 2012/2016 (sooner if funds permit). Accelerate the implementation of WSCBs, waterways, filter strips, etc. in the impaired area. Funding is dependent on future grants specific for TMDLs/impaired waters in the watershed. Impairment of Aquatic Life with Turbidity being the pollutant has a start/completion date from MPCA of 2014/2018.

Who: **SWCD, NRCS, LqP-CWP** When: 2012-2013 Funding: \$25,000/yr; LqP-CWP, SWCDs, CWLL

Objective: Increase and protect wildlife habitat.

Action: Increase the number of wildlife-habitat management areas, wildlife plantings and restore 10 acres of wetland restorations per year making the opportunity for wildlife enhancement and hunting opportunities greater.

Who: **SWCD, NRCS, DNR, USFWS** When: 2009-2013 Funding: \$40,000/yr; DNR, PF, WLI, BWSR, USFWS, LOHC

Action: Assist private landowners with information, cost share, and habitat management plans regarding prescribed burning, invasive tree management, and prairie management to further enhance wildlife habitat while providing hunting opportunity.

Who: **SWCD, NRCS, DNR, USFWS, FSA** When: 2009-2013 Funding: \$10,000/yr; DNR, PF, WHIP, WLI, BWSR, USFWS, EQIP, FSA, LOHC

Action: Implement the Working Lands Initiative (WLI) Program. This program was developed by joint agencies with the DNR managing the funds. These funds are made available through a WLI Grant Agreement with the Lincoln SWCD. The WLI Market adjustment incentives are paid to the landowners depending on acres, and CRP rates. Land must be in a priority area established by the working group. Funding is dependent on General Fund (GF) and Heritage Enhancement (HE). Projects depend on dollars available and acres enrolled which will vary every year.

Who: **SWCD, DNR** When: 2009-2013 Funding: \$200,000-\$400,000/yr; DNR, GF, LOHC, HE

Action: Promote and implement the Wetland Reserve Program (WRP)/Reinvest in Minnesota (RIM) Program using funding from the federal government and the new Lessard Outdoor Heritage Council. Acres enrolled and accepted depend on dollars available which will vary every year.

Who: **SWCD, NRCS** When: 2009-2013 Funding: \$50,000-\$250,000/yr; Federal, BWSR, LOHC

Objective: Educate landowners/operators about erosion and sediment control, the importance of installing conservation practices and encourage conservation programs that help protect wildlife and recreational benefits in Lincoln County.

Action: Provide BMP information and cost-share assistance to land owners/operators to reduce sediment and nutrient loading of surface and ground water and to enhance wildlife and recreation opportunities. BMPs include:

- WSCB's, terraces, waterways, conservation tillage, restored wetlands,
- Feedlots, nutrient/pesticide management;
- Replacement of open tile intakes with alternative tile intakes;
- Enhance and protect remnant native prairies, and wildlife habitat management areas;

- Buffer programs: CCRP, RIM/WRP, Working Lands Initiative, critical area plantings, filter strips; and

- Field windbreaks, living snow fences, farmstead shelterbelts, wildlife tree plantings.

This will be done through newsletters, news releases, individual contacts, SWCD web site, workshops, and SWCD fair booth.

Who: **SWCD, NRCS, DNR, EO, Watersheds** When: 2009-2013 Funding: \$1,500/yr-SWCD, EO, DNR, Watersheds

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

GOAL: Increase recreational opportunities by improving the water quality and quantity of Lincoln County’s lakes.

Objective: Reduce winter fish kill through aeration in the area lakes.

Action: Through the Lincoln County Boat and Water Safety Program the county provides \$300/lake to various sportsmen clubs for aeration systems on the following lakes: Lake Stay, Lake Benton, Lake Shaokatan, Lake Hendricks and Dead Coon Lake. The systems provide for adequate oxygen levels in the lakes for winter fish survival.

Who: **Sportsmen Clubs, Lincoln County Sheriffs Dept.** When: 2009-2013 Funding: \$1,500; Boat/Water Safety

Objective: Reduce curly-leaf pondweed in Lake Benton, which has been detrimental to the use and enjoyment of Lake Benton. Work to improve tourism, economic growth and revive the recreational activities that were once abundant in Lake Benton.

Action: Environmental Office will continue to monitor from the established base flow monitoring site in Lake Benton Lake and will evaluate the progress of phosphorus loading and chlorophyll (algae growth) of the Lake. Results sent to DNR.

Who: **EO** When: 2009-2013 Funding: \$2,500/yr; DNR. EO

Action: EO and Lake Improvement District (LID) will continue to monitor Lake Benton Lake and will spot treat curly leaf pondweed in the lake when needed.

Who: **LID, EO** When: 2009 2013 Funding: \$75,000; Taxes, County, DNR Grants, Cities of Lake Benton and Tyler, Lake Benton Twp, and

LIFE

Action: DNR, LID, EO, will continue to ensure the “presence of a more diverse plant community” to reduce the adverse effects of curly-leaf pondweed on Lake Benton.

Who: **DNR, LID, EO** When: 2009 - 2013 Funding: EO

Objective: Reduce the blue-green algae in Lake Shaokatan to improve the economic and recreational activities in the lake.

Action: Strive to reduce the blue-green algae in Lake Shaokatan by implement BMPs in the watershed above the lake. Promote landowner awareness around the lake in the watershed on the importance of protecting the lake.

Who: **YMRWD, SWCD, NRCS, EO** When: 2009-2013 Funding: Under Lake Shaokatan TMDL Project Implementation

Objective: Educate the residents, owners and operators of the three main lakes on the importance of protecting the recreational benefits of the lakes in Lincoln County.

Action: Educate lake/city residents and landowners/operators around the lakes to protect and improve lake water quality through meetings, one-on-one contacts, and newsletters.

Who: **EO** When: 2009-2013 Funding: EO

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

GOAL: Improve surface water management by decreasing runoff, flooding and erosion while maintaining the drainage systems already in place to sustain agricultural productivity.

Objective: Apply watershed-based principles in properly managing drainage systems and wetlands and repair small dams in the county.

Action: Reduce flooding potential by restoring wetlands by 50 acres over five years and increasing the number of filter strips through CCRP, etc.

Who: **SWCD, NRCS, DNR, USFWS** When: 2009-2013 Funding: Identified in previous action

Action: Seek funding for establishing a list of dams throughout the County and their status as far as needing repairs.

Who: **SWCD, NRCS** When: 2010-2013 Funding: \$25,000; Watersheds, CWLL

Action: Repair existing small dams used for flood control and water storage that are located in the county (repair one dam every three years-or as funds are available).

Who: **Area II, SWCD, NRCS** When: 2009-2013 Funding: \$25,000–\$100,000; Area II, Watersheds, CWLL

Action: Administer the Wetland Conservation Act (WCA). Administration will come from the Local Governmental Unit-Lincoln Soil and Water Conservation District. Technical panel consists of a representative from BWSR, NRCS, and SWCD.

Who: **SWCD** When: 2009-2013 Funding: \$10,000/yr; BWSR, \$10,000/yr; SWCD In-kind

Objective: Incorporate flood control benefits into future road and bridge replacements without destroying fish habitat and inhibiting fish passage to spawning areas.

Action: Seek assistance from Area II-Minnesota River Basin and the DNR for assessment and engineering in incorporating flood control benefits in road and bridge projects without impacting fish habitat and passage.

Who: **HD, Area II, DNR** When: 2009 - 2013 Funding: \$40,000

Action: If an opportunity arises, the County will develop a Wetland Banking Program that will provide "Replacement Acres" for wetlands lost in County Highway Improvement projects and Lincoln County Enterprise Development Projects.

Who: **HD, SWCD** When: 2009-2013 Funding: \$10,000

Objective: Improve the Drainage Ditch systems in Lincoln County through proper management and implementation of buffers.

Action: Enroll landowners in the CCRP in which the landowner would receive a CRP payment for the one-rod buffer required and the additional buffer required for CRP. Approximately 1,000 acres of cropland are enrolled in various conservation land programs. Increase the number of cropland acres into CCRP by 1% per year.

Who: **SWCD, NRCS, EO** When: 2009-2013 Funding: CRP/CCRP

Action: In 2008, the County Commissioners serving as the Lincoln County Ditch Authority directed the Environmental Office to issue administrative orders directing property owners to restore 16 ½ foot permanent grass buffers along open ditches where they are required. Landowners have one-year to get them restored or the County Commissioners may order the work done.

Who: **EO** When: 2009-2010 Funding: Landowner

Objective: Educate landowners/operators in Lincoln County on the Drainage programs/issues.

Action: Educate landowners/operators of the importance of keeping buffers in place to protect drainage ditch systems and all waters of the state. Educate landowners/operators of the negative environmental impacts associated with farming right next to ditch systems in Lincoln County.

Who: **EO, SWCD, NRCS** When: 2009-2013 Funding: SWCD, EO

Action: Educate land users on the Wetland Conservation Act (WCA) regulations, USDA Swampbuster and Army Corp. of Engineers wetland regulations. Accomplish this through newsletters, the SWCD web site and one-on-one contacts.

Who: **SWCD, NRCS** When: 2009-2013 Funding: SWCD