



July 28, 2015

Chisago County Board of Commissioners
Chisago County Government Center
313 North Main Street, Room 172
Center City, MN 55012-9663

Re: DNR Advisory Report on the Re-establishment of the Chisago Lakes LID in Chisago County

Dear Commissioners:

The Minnesota Department of Natural Resources (DNR) has reviewed the resolution submitted by Chisago County to re-establish the Chisago Lakes Improvement District and prepared this Advisory Report in accordance with Minnesota Rules part 6115.0970 subp. 5.

This action is being taken to modify the boundary of the LID to make it consistent with the Chisago Chain of Lakes watershed boundary, in accordance with Minnesota Statutes 103B.575. All current and authorized projects and activities of the LID, as well as LID financing, will remain unchanged.

Background Information on the Chisago Lakes LID

1. There are 42 named and unnamed basins in the Chisago Chain of Lakes watershed, with a combined total of 4800 acres of surface water. Larger basins include Green (13004102) and Little Green (13004101), South Center (13002700), North Center (13003201), Chisago North and South (13001201 and -02), and South Lindstrom (13002800). A table listing all PWI basins is attached.
2. The Chisago Chain of Lakes watershed is part of the Sunrise River watershed and is 36,325 acres in area.
3. One of the lakes, South Center, has been designated a Sentinel Lake¹.
4. Five basins are considered to be impaired for high nutrient concentrations, and two of these are also impaired for mercury concentrations.
5. Aquatic invasive species (AIS) observed in basins in the LID include purple loosestrife (*Lythrum salicaria*, *L. virgatum*, and hybrids), Eurasian watermilfoil (*Myriophyllum spicatum*), and curly leaf pondweed (*Potamogeton crispus*).
6. The landscape is dominated by urban development, pasture/hay, and cultivated crops.
7. Several municipalities are wholly or partly in the district. These include Shafer, Center City, Lindstrom, and Chisago City.
8. The Chisago Lakes LID has been in existence since 1976, and the current LID boundary was approved in 1984.

1: <http://www.pca.state.mn.us/index.php/view-document.html?gid=15862>



Issue Analysis

For many years, the Chisago Lakes LID has been very active in a large number of projects that collectively protect and improve the surface water resources of the Chisago Chain of Lakes Watershed. Many of these projects have watershed-level impacts, including:

- The Chisago Lakes Outlet Project
- Promotion of vegetation buffer strips in agricultural areas
- Promotion of Minimal Impact Design standards
- South and North Center Lakes' Rural subwatershed assessment
- The Chisago Lakes Watershed BMP implementation

The current LID boundary was established in 1984. Although it includes a large amount of the land making up the Chisago Chain of Lakes watershed, it does not completely correspond to it. Some of the natural watershed is not included in the current district, particularly at the downgradient end in the northwest portion^{2,3}, and some areas that are not actually part of the watershed are currently included in the district. Our understanding of the importance of addressing surface water environmental problems and phenomena at a watershed level has increased substantially in the last 30 years, as has our expertise in modeling watershed boundaries. This action to modify the LID's hydrologic boundary to correspond with the natural watershed boundary will enhance the efficacy of the LID's many watershed-level projects and programs and will improve surface water quality in the watershed. The DNR strongly supports this move.

The information provided meets the requirements of lake improvement district statutes and rules. Thank you for consideration of these comments. Please contact Kathy Metzker, DNR Land Use Hydrologist at 651-259-5694, if you have any questions. If approved, please provide the name and address of the primary contact of the Board of Directors for the LID and remind the LID of its obligation to provide DNR notice of annual meetings and copies of annual reports per MS § 103B.571.

Sincerely,
DIVISION OF ECOLOGICAL AND WATER RESOURCES



Julie Ekman
Manager, Conservation Assistance and Regulations (CAR) Section

Attachments

- c: Jennifer Shillcox, Land Use Programs Supervisor
Craig Wills, Area Hydrologist (Chisago County)
Jerry Spetzman, Chisago Lakes Lake Improvement District Administrator
Daniel Petrik, Land Use Specialist
Kathy Metzker, Hydrologist
Brian Livingston, Metro Watershed Supervisor- Minnesota Pollution Control Agency

2: Chisago Chain of Lakes Watershed map (MNDNR)
3: Chisago Lakes Chain of Lakes Watershed with LID Taxation Boundary

DNR PWI Basins in Chisago Chain of Lakes LID

DOW Lake ID	Basin Name	PWI class	Acres	DNR classification	city or county classification
13000100	Blooms	P	147.46	Natural Environment	Natural Environment
13001000	Peterson	W	19.69	not classified	not classified
13001100	Ogrens	P	77.43	Natural Environment	Natural Environment
13001201	Chisago (north)	P	543.74	not classified	not classified
13001202	Chisago (south)	P	595.40	not classified	not classified
13001300	Kroon	P	199.96	Recreational Development	Recreational Development
13001400	Linn	P	177.50	Natural Environment	Natural Environment
13001500	Unnamed	P	134.64	Natural Environment	Natural Environment
13001600	Swamp	P	73.42	Natural Environment	Natural Environment
13001700	Lundquist	P	61.25	Natural Environment	Natural Environment
13001900	Spider	P	197.45	Recreational Development	Recreational Development
13002700	S. Center	P	998.48	General Development	General Development
13002800	S. Lindstrom	P	504.60	General Development	Recreational Development
13002900	Wallmark	P	148.98	General Development	General Development
13003201	N. Center Lake	P	807.76	General Development	General Development
13003202	N. Center Pond	P	7.55	not classified	not classified
13003300	Little	P	187.90	Recreational Development	Recreational Development
13003400	Pioneer	P	77.31	General Development	General Development
13003500	N. Lindstrom	P	147.82	General Development	General Development
13003600	Unnamed	W	23.89	not classified	not classified
13004000	Martha	P	34.20	Recreational Development	Recreational Development
13004101	Little Green	P	234.48	General Development	General Development
13004102	Green	P	1725.31	General Development	General Development
13004300	Mattson	P	67.72	Natural Environment	Natural Environment
13004400	School	P	196.34	Natural Environment	Natural Environment
13004600	Emily	W	18.68	not classified	not classified
13004700	Ellen	W	29.89	Recreational Development	Recreational Development
13004900	Unnamed	W	23.42	Natural Environment	Natural Environment
13005800	Swamp	P	115.67	Natural Environment	Natural Environment
13010000	Hall Marsh	W	8.64	not classified	not classified
13010200	Holmquist Slough	W	22.92	not classified	not classified
13010600	Unnamed	W	11.31	not classified	not classified
13010700	Hawkinson Slough	W	8.00	not classified	not classified

DNR PWI Basins in Chisago Chain of Lakes LID

DOW Lake ID	Basin Name	PWI class	Acres	DNR classification	city or county classification
13010800	Bjorkman Slough	W	14.04	not classified	not classified
13011100	Thompon Slough	W	10.62	not classified	not classified
13013200	Anderson Marsh	W	17.34	not classified	not classified
13014100	Unnamed	W	5.72	not classified	not classified
13014400	Pearson	W	25.46	not classified	not classified
13015400	Unnamed	W	48.94	not classified	not classified
13015500	Unnamed	W	4.63	not classified	not classified
13015600	Unnamed	W	26.85	not classified	not classified
13015900	Unnamed	W	16.68	not classified	not classified