

Joint Meeting
Of the Douglas County Board of Commissioners and the Todd County Board of Commissioners

Special Board Meeting Agenda
Tuesday, April 16, 2024
Meeting to be held at the Osakis Public School Auditorium
500 First Ave E, Osakis, Minnesota 56360
6:00 p.m.

Meeting Purpose: *Upon petition by the Osakis Lake Association for a proposed Osakis Lake Improvement District, the Douglas County Board of Commissioners (Douglas BOC) and Todd County Board of Commissioners (Todd BOC) have set this joint meeting to hold a public hearing pursuant to Minnesota Statute 105B.501 through Minnesota Statute 103B.581 and Minnesota Rule 6115.0900 through Minnesota Rule 6115.0980.*

1. Call to Order & Rollcall

- 1.1 Douglas BOC Call to Order— Commissioner Keith Englund, Douglas BOC Chair
- 1.2 Todd BOC Call to Order—Commissioner Becker, Todd BOC Chair

2. Pledge of Allegiance

3. Approve Agenda

- 3.1 Douglas BOC Approval
- 3.2 Todd BOC Approval

4. Petitioners Presentation:

Osakis Lake Association Board Members 30 min

5. Agency & Staff Comments:

30 min

- DNR Commissioner Advisory Report
- Other Agency Comments
- County Staff Comments

6. Proceed to Public Hearing:

- 6.1 Douglas BOC Motion to Open Hearing— Commissioner Keith Englund, Douglas BOC Chair
- 6.2 Todd BOC Motion to Open Hearing—Commissioner Becker, Todd BOC Chair

7. Public Hearing

- 7.1 Rules of the Public Comment Period by Commissioner Becker

8. Closing of Public Hearing

- 8.1 Douglas BOC Motion to Close Hearing – Commissioner Keith Englund, Douglas BOC Chair
- 8.2 Todd BOC Motion to Close Hearing – Commissioner Becker, Todd BOC Chair

9. Review of Next Step Procedures

10. Adjourn

- 10.1 Douglas BOC Adjourn— Commissioner Keith Englund, Douglas BOC Chair
- 10.2 Todd BOC Adjourn—Commissioner Becker, Todd BOC Chair

*Commissioners may be in the Osakis High School Auditorium prior to the board meeting proceedings.
The County Board will open the meeting at the posted time and reserves the right to alter the agenda schedule for business needs.*



P.O. Box 102 • Osakis, MN 56360 • www.OsakisLakeAssociation.org

September 29, 2023

Denise Gaida
Auditor/Treasurer
Todd County Minnesota
215 1st Ave S, Suite 201
Long Prairie MN 56347



Dear Ms. Gaida and the Todd County Board of Commissioners of the State of Minnesota:

REQUEST TO ESTABLISH A LAKE IMPROVEMENT DISTRICT FOR LAKE OSAKIS, TODD COUNTY

Pursuant to Minnesota Statute 103B.521 subd. 1 (7) and (7c). Please consider our request to establish a Lake Improve District for Lake Osakis; to be titled Osakis Lake Improvement District (OLID), to develop and provide a program of water and related land resources management.

Pursuant to Minnesota Statute 103B.521 subd. 1 (7b). We submit the petitions signed by the majority of the property owners within the proposed lake improvement district described in the petition. Governmental subdivisions, other than the state or federal governments, owning lands within the proposed district are eligible to sign the petition.

Pursuant to Minnesota Statute 103B.521 subd. 1 (7d). We request the county board to, at least 30 days before it acts on a petition, send the town board of a town wholly or partially within the boundaries of a proposed district a copy of the petition submitted under this subdivision and encourage the town board to respond to the proposed creation of the district.

Thank you for consideration of the above request.

Sincerely,

Bruce Magnus
On Behalf of the Osakis Lake Association

See Attached Documents and Documents in memory drives!

6115.0970 CREATION OF LAKE IMPROVEMENT DISTRICT

Subpart 1. Petition or county board document.

A. A written statement of Lake problems and objectives: Broad issues are 1) TMDL identified excessive sediment and nutrient loading. The Objective is to implement management tools and practices to remove and reduce sediment/nutrient loading. 2) Aquatic Invasive Species (AIS), 367-acre population of Curly Leaf Pondweed (CLP) identified. The Objective is to continue CLP reduction with multiple methods. 3) Lake water level variability is challenging for property owners. The objective is to reduce the seasonal "bounce" from the to a point where more property owners can use their boat lifts for a longer period. Per the Lake Osakis TMDL report, Lake Osakis has been on the Impaired water list since 2004. See the Lake Osakis TMDL report web site for more information. The sediment has been linked to the JD-2 ditch per the Sauk River Watershed District documentation. This is an ongoing problem, SRWD has been working on this as the Osakis Lake Assn as well. The Lake Osakis Assn has been working on the Curly Leaf Pond weed which we have been spraying for the last 3 years. As you know we have surveyed the Lake for the last few years and have identified the areas of concern. Once we have done this, we apply for permits through the DNR. They permit what they feel is necessary and then allow us to spray. We have sprayed for the last 3 years and have been 95% successful in controlling it.

B. The proposed type or types of programs (intended studies, management programs, remediation actions, construction projects): Continued collaboration with SRWD volunteer water quality sampling. Implement approved (DNR, SWD, MPCA) tools and methods to reduce sediment and nutrients (inlet retention areas, water treatments and land and feedlot management). Participate with landowners and feed lot management in cost sharing. Conduct a feasibility study with the cooperation with the LID.

Annual surveys for current and unknown AIS populations. Multiple approaches (methods) to CLP management. When available implement approved control measures for any future AIS populations (Zebra Mussels, starry stonewort, Eurasian Milfoil, etc.).

Contract a feasibility study in cooperation with the LID to determine if there are options to "reduce the bounce" of the water level on Lake Osakis. Includes but not limited to inlets and outlets. If determined there are options, then consider with public input would it be affordable after State and Federal funding is applied, prior to moving forward with an improvement project.

C. A statement of means by which a program will be financed: Osakis Lake will seek Lake Osakis Association gambling funds where allowable, donations, project fund raisers, last resort is proposed LID taxes.

D. A map showing the boundaries of the proposed Lake Improvement District.

See attached memory drive file.

E. The number of directors proposed for the district. Five

F. Copies of local ordinances which regulate use of the lake or any public access.

(see attached memory drive files)

The majority of Lake Osakis property owners have signed a petition that supports future management.

G. The identification of any lands and waters which may be adversely affected by the implementation of district purposes, and preliminary assessment of these adverse effects.

Native plants can be adversely affected by AIS control measures if permit guidelines are not followed. OLA has a history of following these permits as designed and will continue to do so.

Inlet and Outlet projects are a collaboration with agencies jurisdictions that apply to the location. Some of which may apply are Core of Engineers, Fish and Wildlife, DNR, SRWD, property owners, County agencies/departments and Ditch Authorities. Therefore, the adverse impacts would be addressed in collaboration with the appropriate agencies for each prospective project.

H. A statement outlining the adequacy and ownership of public access, including public lands and beaches.

1) In the city of Osakis, on the south shore of Osakis Lake.

Administrator: DNR Division of Parks and Trails

Facilities: 2 ramps (type=concrete slab), 1 parking lot (type=asphalt), 26 vehicle/trailer parking spaces, no accessible parking spaces, 1 dock, 1 restroom, Boat sanitation station

2) Take CR 3 north out of Osakis for 1.3 miles to CR 10. Follow CR 10 east for 2.7 miles to the access.

Administrator: DNR Division of Parks and Trails

Facilities: 1 ramp (type=concrete slab), 1 parking lot (type=gravel), 10 vehicle/trailer parking spaces, no accessible parking spaces, 1 dock, no restrooms

3) In Battle Point County Park, 2 mi E of the city of Osakis on Mn Hwy 27, then 3 mi N on County Rd 37, then 2 mi W. on Twp Rd to E shore.

Administrator: Todd County

Facilities: 1 ramp (type=concrete slab), 1 parking lot (type=gravel), 24 vehicle/trailer parking spaces, no accessible parking spaces, 1 dock, 1 restroom, Picnic area, Fishing Pier, Swimming Beach

4) City of Osakis Swimming Beach 1201 Lake Street East, Osakis MN.

Administrator: City of Osakis

Facilities: Swim pontoon, Fishing Pier, vehicle parking, sand volleyball, picnic area, restrooms

5) Leslie Twp Boat Ramp, on the north side of the lake (Co Hwy 10,145th St)

Administrator: Leslie Township

Facilities: 1 ramp (type=gravel), roadside parking

J. An estimate of the total equalization valuation of property within the district.

Douglas Co Dist. 5	\$ 40,825,000
Todd Co Dist. 1-4	\$168,727,600
	\$209,552,600

k Any other information demonstrating accordance with the criteria and standards for establishment as contained in part 6115.0960.

Subp. 2) There has been a TMDL and Lake Management Plan in place for two decades (see attached Documents on the memory drive). The proposed projects were identified in the documents except for lake level management. MPCA reports no improvement in sediment/nutrient loading (I.E., sediment ponds installed 2009). Current agencies have not shown interest in financial commitment to address Lake Osakis' needs as identified in the TMDL. Osakis Lake Association is also limited in its access to funding plus the Gambling Income can be unpredictable.

There is a 400-page document available to review at (Lake Osakis TMDL web site.

A sediment pond has been installed, this was done in 2006 and cleaned in 2016 the sediment load has not been reduced.

The Lake Osakis Assn has been working closely with the SWRD and have made some recommendations but as always there is a cost. We are seeking grants and cost sharing for extending the Crooked Lake project which would divert more water into holding area's before it reaches the lake. We also recommended 2 stage ditching on JD-2.

With all these proposed projects the first source of income would be gifts from the lake association gambling funds followed by donations and other voluntary contributions. In turn after all that is exhausted, we would turn to the LID for contributions.

6115.0980 ADMINISTRATION OF LAKE IMPROVEMENT DISTRICTS.

Subpart 1. **Modification.** No program, remedial action, project, or change of district boundaries which is not specified in the resolution creating a lake improvement district may be undertaken, except by modifying the appropriate items listed in part 6115.0970, subpart 1, items A to E.

For an established district, any of the items listed in part 6115.0970, subpart 1, items A to E, may be modified by petition to or resolution by the county board, in the same manner that a district is created.

Subp. 2. **Legal responsibilities and liabilities of lake improvement districts.** Nothing in these parts shall be construed to relieve a lake improvement district of the legal duties, obligations, or liabilities incident to the programs, plans, or actions of the district.

The lake improvement district shall assume all legal risks and liabilities, including those for damages or any injury to persons or property, arising from the construction, operation, maintenance, alteration, or abandonment of its programs, plans, or actions.

In the event of termination of the district, or failure of the district to meet its obligations, these responsibilities and liabilities shall fall upon the unit or units of government which established the lake improvement district.

Subp. 3. **Limited state liabilities.** The establishment of a lake improvement district shall not impose any liability upon the state of Minnesota, its officers, employees, agents, or consultants, for any damage or injury to any persons or property resulting from the activities of the lake improvement district.

Subp. 4. **Rights of lake improvement districts.** Nothing in these parts shall be construed to deprive any lake improvement district of such recourse to the courts as it may be entitled to under the laws of this state.

Subp. 5. **Inspections.** The commissioner shall be given prompt access to and inspection of all records, structures, facilities, and operations at all reasonable times as may be necessary to monitor compliance with the terms of existing permit and to ensure protection of the public health, safety, and welfare. The commissioner's inspections shall not relieve the lake improvement district from the full responsibility of providing adequate inspection and supervision for all programs and projects undertaken by the district.

Subp. 6. **Compliance with other laws and water management policies.** Lake improvement districts shall conform to federal, state, regional, and local laws, rules, and fish and wildlife, water, and related land management policies. Lake improvement districts shall obtain all necessary permits, as required by law, prior to implementing district purposes and programs.

Subp. 7. Compliance by preexisting lake improvement districts. Within one year following promulgation of these parts, lake improvement districts in existence prior to the promulgation of these rules shall submit to their county board and to the commissioner a certified copy of a document containing the information required by part 6115.0970. This document shall also contain a report on the past and current activities and financial condition of the district.

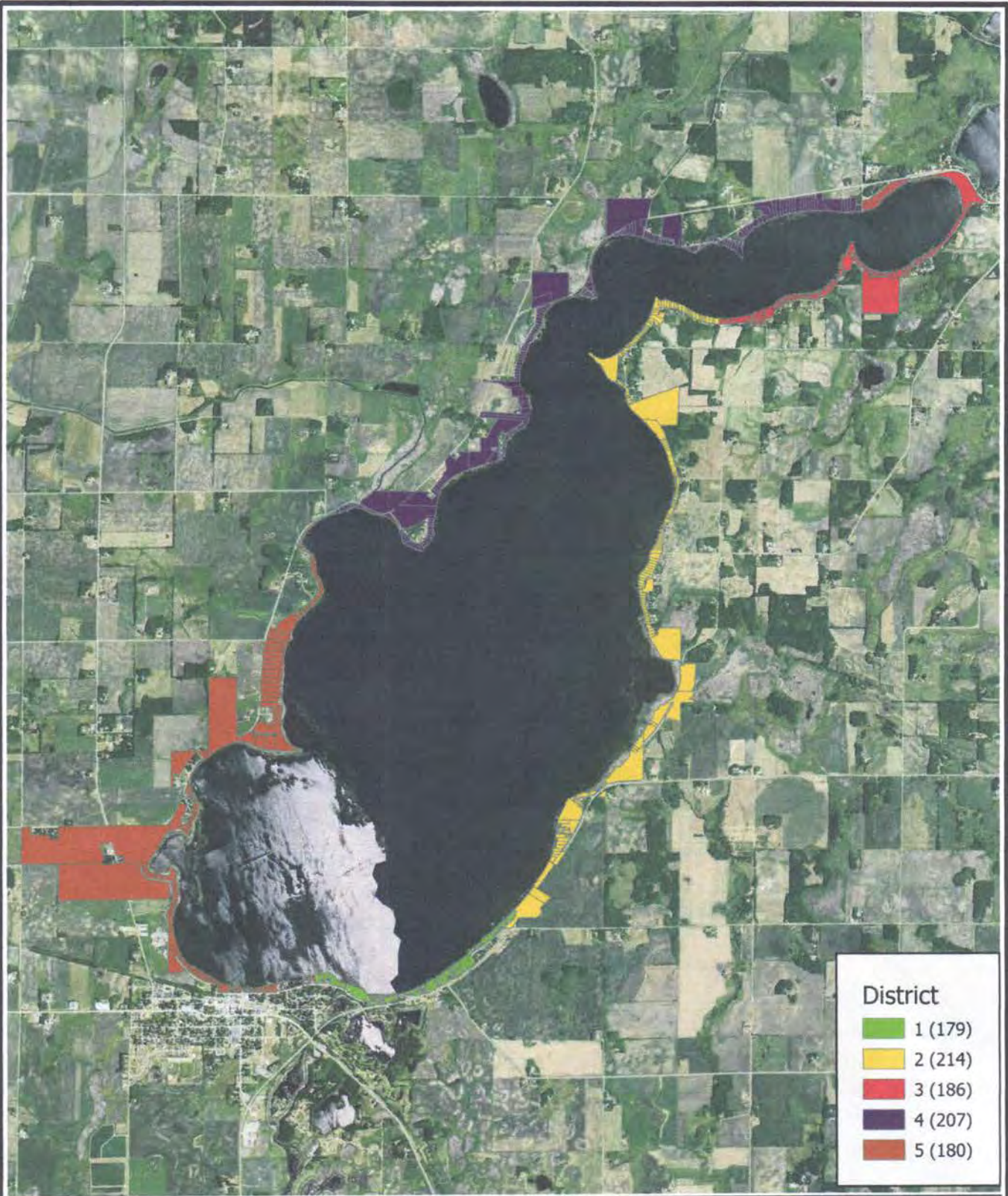
The commissioner shall review the document and prepare an advisory report stating findings as to whether the district is consistent with these parts. The report may contain such recommendations as the commissioner determines is necessary to bring the district into compliance with these parts.






Within 60 days following the official filing of the commissioner's report with the county board, the board shall formally convene to consider the report. The county board shall give ten working days' notice to the commissioner of the time and place where it will convene to consider the commissioner's report. If the commissioner or the commissioner's representative does not appear, the report shall be publicly read into the record.

Statutory Authority: *MS s 378.41*

History: *17 SR 1279*

Published Electronically: *October 8, 2013*



District	
	1 (179)
	2 (214)
	3 (186)
	4 (207)
	5 (180)

Todd County
MINNESOTA



Todd County GIS
215 1st Ave S, Ste 102
Long Prairie, MN 56347
(Office) 320-732-4248

Site Map



The Todd County GIS & Land Services Department has made every effort to provide the most accurate and up-to-date information available in this publication and cannot be held responsible for any unforeseen errors or omissions. If the recipient wishes to locate parcel corners and property lines, employ the services of a Registered Land Surveyor.

Printed on Wednesday, September 13, 2023

Osakis Lake Improvement District Budget

Proposed Budget:

Income:

810 (+/-) property owners x \$65 = \$52,650

Expenses:

Liability + D&O Insurance \$ 2,000

Operating Cost \$ 500

AIS Management \$35,000

Surveys \$ 7,500

Permit Fees \$ 500

OLID Administration (Mailings, Meetings, Web) \$ 4,000

Contingency Fund \$ 1,400

Per Diem \$35/meeting \$ 1,750

\$52,650



MINNESOTA DEPARTMENT OF NATURAL RESOURCES
CENTRAL OFFICE
500 LAFAYETTE ROAD, BOX 25
SAINT PAUL, MN 55155
651-296-6157
888-646-6367

April 4, 2024

Lenae Roeser
Douglas County Coordinator Department
821 Cedar Avenue
Alexandria, MN 56308

Re: DNR Advisory Report on the Formation of the Osakis Lake Improvement District in Douglas and Todd Counties

Dear Ms. Roeser:

I am writing to inform you that the Minnesota Department of Natural Resources has reviewed the proposal requesting creation of the Osakis Lake Improvement District and prepared this Advisory Report in accordance with Minnesota Rules, part 6115.0970, subp. 5. Based on our review we approve of the proposed boundary for the Osakis Lake LID for the purposes or goals of:

- managing existing Aquatic Invasive Species (AIS) and preventing the introduction and establishment of new ones;
- conducting a feasibility study of hydrologic fluctuations on the lake and options to reduce fluctuations;
- monitoring water quality;
- collaborating with the Sauk River Watershed District (SRWD), the counties, and other organizations and agencies as appropriate, on in-lake and watershed projects to improve water quality; and
- pursuing in-lake projects to improve water quality.

Goals of the Proposed Lake Improvement District

The primary goal of the proposed Lake Improvement District for Osakis Lake is to manage *Potamogeton crispus* (curlyleaf pondweed; CLP) in the lake. Secondary goals of the LID include monitoring water quality, promoting watershed level projects to improve water quality, and conducting a study to investigate the causes of seasonal hydrologic fluctuations in the lake, as well as strategies to mitigate them.

Background Information on Osakis Lake

1. Osakis Lake (DOW Lake ID number 77021500) is classified as General Development (GD). In Todd and Douglas Counties, GD lakes have structure setbacks of 75 feet above the Ordinary High Water Level (OWHL) for unsewered and 50 feet for sewerer properties.

2. Osakis Lake is approximately 6,389 acres in size, approximately half of which is considered to be littoral (15 feet deep or less per M.R. part 6280.0100, subd. 9). Generally, the littoral zone is the part of a lake where rooted aquatic plants can grow, though the maximum depth at which plants can grow depends on water clarity and so varies from lake to lake and even from year to year within the same lake. Osakis Lake's maximum depth is 73 feet, with a mean depth of 20 feet.¹
3. Agriculture, primarily cultivated crops, dominates the upstream watershed.²
4. The lakes' immediate catchment has an area of approximately 15,088 acres, and the total upstream watershed has an area of approximately 88,722 acres. These yield land:lake ratios of approximately 2.4:1 for the direct catchment and 14:1 for the total watershed.
5. Osakis Lake is considered to be impaired for several parameters, including: phosphorus³, mercury, and aquatic life⁴. High concentrations of phosphorus contribute to excessive algae growth and low water clarity, and render the lake not always suitable for swimming and wading. The lake also has fish consumption advisories due to mercury impairment.
6. Aquatic invasive species (AIS) include zebra mussels (*Dreissena polymorpha*) and curlyleaf pondweed (*Potamogeton crispus*, CLP). Zebra mussels were discovered in 2017⁵. It is not known when CLP was first introduced into the lake, but it has been established as the dominant aquatic plant since at least 2006⁶.
7. The MN DNR maintains two concrete boat ramps on the lake, Todd County maintains a third, and Leslie Township maintains a fourth (gravel) ramp. The City of Osakis also maintains a swimming beach with swim pontoon and fishing pier.
8. According to the Notice of Public Hearing, the boundaries of the proposed LID include parcels with lake frontage, or lake frontage access, on Osakis Lake.
9. The proposed method of the LID formation is by citizen petition.
10. The proposed LID includes land in unincorporated Douglas and Todd Counties, as well as in the City of Osakis. The county boards have been petitioned separately.

Issue Analysis

Aquatic Invasive Species Management

According to the LID proposal, Osakis Lake currently has approximately 367 acres of CLP. The current lake association has been treating the CLP with herbicide for the past three years, and the LID would take over this activity. The proposal includes no details or discussion of the management activities applied to the CLP, nor does it include recent vegetation surveys showing the distribution of the 367 acres of CLP or aquatic native species. MN DNR has conducted plant surveys, in late May- early June 2006 and May 2018, each of which found CLP at about half the sites sampled. It is the most abundant plant in the lake. It is also one of the few plant species found at depths greater than nine feet, and the only plant found at depths of 19 to 20 feet (in 2006; in 2018, no vegetation was found deeper than 13 feet). In both surveys, CLP was found at suitable depths throughout the lake.

1. [MN DNR Lakefinder](https://www.dnr.state.mn.us/lakefind/index.html) (https://www.dnr.state.mn.us/lakefind/index.html)
2. 2016 Land Cover Dataset, U.S. Geological Survey
3. Lakes of Phosphorus Sensitivity Significance, MN DNR Ecological and Water Resources
4. MPCA (https://webapp.pca.state.mn.us/surface-water/impairment/77-0215-00)
5. MN DNR Lakefinder, Status of the Fishery (https://www.dnr.state.mn.us/lakefind/showreport.html?downum=77021500)
6. Osakis Lake Vegetation Report, 2006

The proposal states that CLP will be managed by ‘multiple methods’, but does not specify any method besides herbicide application. According to the MN DNR, research and monitoring suggests that the most successful CLP management projects involve using herbicides for nuisance management and limiting its application to 15% of the littoral area and focusing on improving water quality to reduce CLP growth. Any large scale treatment of CLP should be coupled with reducing external phosphorus loading and internal phosphorus re-suspension; otherwise, reductions in CLP would likely result in increased algae blooms, both through a reduction in phosphorus uptake by CLP and a release of phosphorus from treated CLP as it dies. If the LID is established, the DNR expects the LID to work closely and regularly with both its contractor and the DNR to ensure uniformity and regularity in monitoring and reporting. Any plant AIS management should be accompanied by regular lake vegetation surveys, and with the guidance of MN DNR’s Aquatic Invasive Species Program and Aquatic Plant Management Program. CLP’s distinctive growth patterns, with early emergence shortly after iceout, die off during the summer, and persistence in the substrate as turions, should be considered when scheduling vegetation surveys and treatment schedules.

A 2004 vegetation survey conducted by Minnesota Biological Survey (MBS) along the western shore of the lake found eight species of submersed plants (including CLP), two species of floating plants, two species of emergent plants, and two species of shoreline plants. Data from more recent vegetation surveys would have been helpful in determining whether the native vegetation community has become more diverse since the start of CLP management. MN DNR suggests that future CLP treatment activities, whether carried out by the LID or the lake association, include regular vegetation surveys so that the efficacy of treatment can be evaluated.

New AIS can be introduced, or existing AIS spread, through multiple means on a lake. These include public boat ramps and fishing piers, as well as via recreational equipment used on private lots, and docks and lifts installed by private landowners. The boat ramps and fishing pier serve as likely sources for spread of CLP and zebra mussels, or introduction of new AIS via contaminated boating or fishing equipment coming from other lakes. However, one of the largest vectors of spread is when the lake residents do not wait 21 days and clean and decontaminate their lifts and docks before selling them or moving them to a different waterbody. MN DNR suggests that the LID conduct workshops to educate property owners on effective ways to decontaminate any boating or fishing gear that has been used on other lakes, and to work with city and county staff and the area DNR AIS Specialists for Douglas and Todd Counties (Mark Ranweiler (mark.ranweiler@state.mn.us; 218-671-7945); Emelia Hauck Jacobs (emelia.hauck-jacobs@state.mn.us; 320-223-7855); Christine Jurek (Christine.jurek@state.mn.us; 320-223-7847) DNR Regional Watercraft Inspection Supervisors Mike Bolinski (michael.bolinski@state.mn.us; 218-671-1451) and Christine Hokkala-Kuhns (christine.hokkala-kuhns@state.mn.us; 320-223-7845) to establish boat inspection and decontamination stations at the boat access sites.

Water Quality

Osakis Lake has excessive nutrient and sediment loading and is listed as impaired for phosphorus. In addition, Crooked Lake Ditch, which discharges into Osakis Lake, is listed as impaired for fecal coliform bacteria (*Escherichia coli*), according to the draft Sauk River Watershed TMDL Report, and Judicial Ditch 2 (JD-2) discharges sediment into the lake. The lake is in a very large watershed dominated by agriculture and especially row cropping, which is a likely source of both sediment and nutrient loading. Another possible source of excess phosphorus in the lake is from CLP, when it dies back in the summer and releases nutrients into the water column, or internal loading from the lake sediments.

The Sauk River Watershed District (SRWD) has issued a draft TMDL report for the watershed, which considers the following strategies to improve water quality in the watershed: agricultural best management practices (BMPs), buffers and streambank stabilization, urban BMPs, septic system improvements, restoration of altered hydrology,

drainage system management, and lakeshore buffers. Although Osakis Lake is not mentioned as one of the waterbodies under consideration for specific TMDL projects in the watershed, this should not prevent the LID from working with the watershed on water quality improvement projects. MN DNR encourages the LID to work closely with the watershed district on applicable inflake and shoreline strategies, including septic system improvements and lakeshore buffers, to improve the water quality entering the lake. DNR also suggests that the LID work with the watershed district to develop a phosphorus budget for the lake, to determine how much of the lake's excess phosphorus is from runoff from the watershed and how much is from internal loading. Effective phosphorus reduction strategies that the LID might pursue for external vs internal phosphorus sources would be different depending on the source of the phosphorus. According to the proposal, the lake association has been actively collaborating with SRWD on various projects, and the LID would take over these efforts if formed. Specific projects that the LID would take over include extending SRWD's Crooked Lake Ditch project to retain more water before it is discharged into the lake and collaborating with SRWD on two-stage ditching on JD-2.

According to the draft TMDL report, one Concentrated Animal Feeding Operation (CAFO) exists and operates in the watershed for Crooked Lake Ditch (aka Unnamed Creek to Osakis Lake). This watershed also has 55 total feedlots, 51 used open lots, and 47 used pastures in it, and is the likely source of most of the *E. coli* contamination in Crooked Lake Ditch. It is probably also a major source of sediment and nutrient input into the lake. The LID proposal mentions feedlot management as a possible approach to improving the lake's water quality, and MN DNR encourages the LID to work with the SRWD on projects designed to reduce or intercept these pollutants.

According to the proposal, the SRWD conducts water quality sampling of the lake, in collaboration with the lake association, and the LID would take over this activity. Water quality monitoring is necessary to identify the sources, types, and patterns of contamination in the lake, and this is a useful program for the LID to undertake. This information is necessary to determine magnitude, seasonal patterns in, and likely sources of contamination. Possible sources of sediment and nutrient input into the lake include inflow from streams and other lakes; discharge from municipal point sources or nonpoint runoff from the City of Osakis; discharge from failing septic tanks; nonpoint source runoff from the upstream watershed; runoff from lakeshore properties that are within the proposed LID boundaries; atmospheric deposition; or internal loading from lake sediments or decomposing vegetation. Effective programs to reduce sediment and nutrients are determined by the source or sources of pollutants, which are identified via monitoring locations and monitoring schedules. If the lake has a problem with internal phosphorus loading, runoff from lakeshore properties, or failing septic systems, then the LID would be able to adopt programs to address these problems directly, either alone or in partnership with the DNR, MPCA, the City of Osakis, or Douglas and Todd Counties. However, given the large size of the watershed, prevalence of agriculture, and large number of feedlots, it is likely that a large part of the lake's nutrient and sediment problems originate in the upstream watershed, and the LID would have less ability to directly address these problems. The LID would need to work with the SRWD, the SWCD, and MPCA to pursue larger scale projects addressing water quality impairments from these sources. A robust set of water quality monitoring data would greatly help the LID make these decisions and embark on more effective water quality improvement projects.

Seasonal 'Bounce' in Lake Levels

The proposal states that seasonal water level fluctuations are problematic on the lake and proposes to contract for a feasibility study to determine origins of the fluctuations and options to reduce them. Possible sources of seasonal bounce in lake levels are variations in runoff and discharge from the upstream watershed. Water level fluctuation from flashy upstream runoff is an issue that could be addressed in association with the LGUs (e.g., SRWD, SWCD, the counties, the City of Osakis). The LID should discuss this topic further with the LGUs and with MN DNR's area

hydrologists, Mark Anderson (mark.anderson@state.mn.us; 320-232-1078) and Emily Siira (Emily.siira@state.mn.us; 320-634-7345) to determine whether this is a feasible or appropriate goal.

MN DNR also notes that the proposal only states that the LID would contract for feasibility studies but does not request that it be authorized to act on any recommendations or conclusions resulting from these studies. MN DNR suggests that the counties also authorize the LID to carry out any such recommended actions. If this is not done at establishment, the LID may find itself in the position of needing to petition for modification according to [Minnesota Rules 6115.0980 subpart 1](#) in order to take on any projects.

Climate Change Considerations

The overall trend, from 1895 to 2019, is of increasing precipitation and increased temperatures in this portion of Minnesota, and these trends are expected to continue. The intensity of precipitation events is also expected to increase. These trends would likely result in increased runoff in the Sauk River watershed, with concomitant increased sedimentation and nutrient discharge into Osakis Lake. It may also contribute to the magnitude of seasonal water level fluctuations. Because the consequences of these climatic trends are at a watershed level, the LID would need to work with the watershed district on projects to mitigate their impacts on the lake. Possible projects would include working with upstream landowners to install or expand vegetation buffers and restore or create wetlands to store runoff and sediment.

Recommendations/Conclusions

In addition to the projects described in the LID proposal, MN DNR also recommends that the LID consider the following actions, and that the counties grant the LID authority to pursue these actions in the establishment order:

1. conduct regular plant vegetation surveys
2. coordinate with MN DNR AIS staff to conduct workshops to educate property owners on proper AIS decontamination techniques for boating and fishing gear
3. work with MN DNR and local city and county staff to establish boat inspection and decontamination stations at boat access sites and the fishing pier
4. pursue projects to reduce external phosphorus loading and internal phosphorus resuspension, including:
 - a. septic system inspections and compliance projects
 - b. encouraging property owners to install native vegetation buffers along the lakeshore
 - c. work with the watershed district to develop a phosphorus budget for the lake
 - d. take over extending SRWD's Crooked Lake Ditch project to increase retention time before water is discharged into the lake
 - e. collaborate with SRWD on two-stage ditching on JD2
 - f. take over water quality monitoring, with the goal of identifying external sources of phosphorus to the lake
 - g. collaborate with SRWD and other organizations, as appropriate, to reduce phosphorus loading to the lake
 - h. if recommended by monitoring data, undertake projects to reduce internal phosphorus loading

Proposed LID Boundaries

The boundaries of the proposed LID are shown on the submitted map and appear to include all lakefront parcels. MR Part 6115.0920 subpart 5 requires that the boundaries include all lands and waters within the direct drainage basin of the lake (shown on the attached map). However, this rule also allows the County Board or City Council to create a boundary less than the entire drainage basin with written Commissioner approval if the boundary selected includes enough of the lake's watershed to develop and implement feasible solutions to the problems the LID intends to address. If the boundary includes all riparian parcels, restriction of the district's boundary to these properties is sufficient to address the in-lake activities for which the LID is being proposed, as well as the water level fluctuation feasibility study and the proposed collaboration with watershed partners. Therefore, in accordance with these rules, the DNR approves the proposed boundaries identified in the resolution.

According to the Notice of Public Hearing, the boundaries of the LID would include parcels with lake frontage, or lake frontage access, on Osakis Lake. MN DNR requests that the order of establishment clarify that this includes ALL eligible parcels.

Advisory Comments & Recommendations

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.

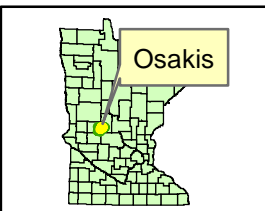
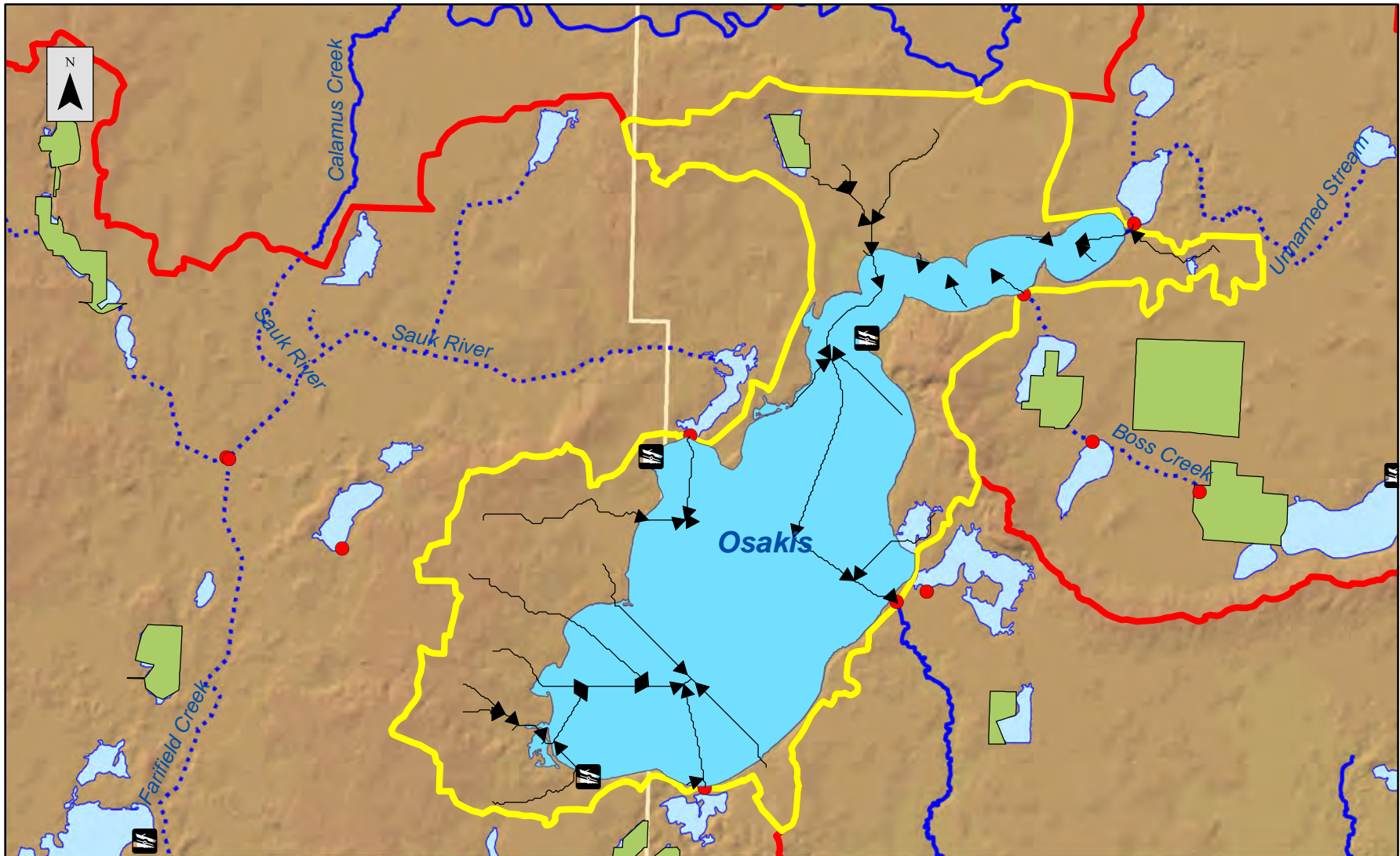
Sincerely,
DIVISION OF ECOLOGICAL AND WATER RESOURCES

Randall Doneen
Manager, Conservation Assistance and Regulations (CAR) Section

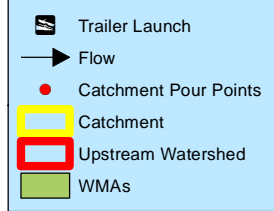
Attachment

Emily Javens, Land Use Unit Supervisor
Daniel Petrik, DNR Shoreland Management Program Manager
Emily Siira, DNR Area Hydrologist (Douglas County)
Mark Anderson, DNR Area Hydrologist (Todd County)
Mark Ranweiler, DNR Aquatic Invasive Species Specialist
Christine Jurek, DNR Aquatic Invasive Species Specialist
Emelia Hauck Jacobs, DNR Aquatic Invasive Species Specialist
Mike Bolinski, DNR Regional Watercraft Inspection Supervisor
Christine Hokkala-Kuhns, DNR Regional Watercraft Inspection Supervisor

Osakis Lake



The watershed data presented here are part of the National Watershed Boundary Dataset (WBD). A Hydrologic Unit (HU) is the smallest division in the nested, hierarchical watershed classification system of the WBD. Electronic data for use in a GIS (Geographic Information System) can be downloaded from the DNR Data Deli: <http://deli.dnr.state.mn.us/>



Watershed	Area	
	Acres	Square Miles
Osakis Lake Lake ID 77021500	6389	9.98
Direct Catchment Watershed Sauk River	15088	23.58
Total Upstream Contributing Watershed	88722	138.6