



Lake Orono Improvement Association INC.

April 10, 2019

City of Elk River
13065 Orono Parkway
Elk River, MN 55330

Dear Mayor Dietz and City Council Members,

Please accept this letter and the accompanying attachments as the official request of the Lake Orono Improvement Association (LOIA) for the Elk River City Council to approval the formation of the Orono Lake Improvement District (OLID). Embedded in the documents are responses to meet all requirements of [Minnesota Statutes 103B.521 Subdivision 1, Minnesota Rules 6115.0970 Subpart 1 and Minnesota Rules 6115.0960](#) regarding petitioning and establishing a lake improvement district.

According to MN Statute 103B.501 LAKE IMPROVEMENT DISTRICTS. 103.515, Subdivision 1, a county board (or city council) may initiate the establishment of a lake improvement district in a portion of the county (or city) under this section. The council must adopt a resolution declaring the intent of the council to establish a lake improvement district.

We formally request the Elk River City Council to initiate, by resolution in response to this petition, the process to form the Orono Lake Improvement District. We submit these 157 signatures as evidence of support for the formation of the Orono Lake Improvement District (OLID). Minnesota statute requires petition signatures of a majority of property owners (50% plus 1), or 142 signatures, within our proposed district. These 157 signatures represent 55% of the 283 potential signatures from 188 parcels within the proposed district.

As discussed in council worksessions over the last few years, today's challenges to maintain Lake Orono in a quality manner exceed the combined funding capabilities of our Lake Orono Water Quality Committee (LOWQC), a partnership of LOIA with the City of Elk River and Sherburne SWCD that has been in place since the mid-90s. Addressing issues like invasive species, water quality, fisheries and habitat improvements and periodic dredging have become too extensive and expensive for traditional budgets alone. To complement existing funds, a new consistent and equitable lake property owner funding mechanism needs to be put in place. This important portion of funding to meet lake challenges can no longer be reliant on fundraising and donations.

Goals of the proposed Orono Lake Improvement District

In reviewing the activities and revenue sources itemized in our included 2017-2020 Lake Orono Lake Management Plan budget (pages 79 and 80), you'll see details outlining how the OLID is intended to be an additional funding tool to support the broad goal of our LOWQC Lake Management Plan. They are:

- That our 2017-2020 Lake Orono Management Plan be adopted by the Elk River City Council
 - Ensure that goals are realistic and attainable, funding paths have been determined and that they are supported by concrete action plans and evaluation mechanisms.

- Implement a comprehensive program to alleviate current ecological stressors and recreational impairment on Lake Orono, brought about by excessive aquatic invasive species, native plant overgrowth, algae proliferation, excess nutrients and sedimentation.
 - The LOWQC will investigate the feasibility, financial and political support for two primary tools – **dredging and a partial lake drawdown, for implementation during 2019-2020 or 2020-2021** (whichever yields the most favorable planning results).
 - Establish a program to **remove a minimum of 130,000 cubic yards of sediment** to return Lake Orono to its historic baseline depth (an average of 5' or greater).
 - ✓ To be funded from a combination of 46% from State bonding capacity, 23% of the costs to be paid through lake property owner assessments and 31% from a city-wide local option sales tax.
 - Further pursue land Best Management Practices to **extend this investment** in lake and river infrastructure **to at least a 30-year life cycle** and also ongoing sediment maintenance.
 - Put in place a consistent Lake Vegetation Management Plan to effectively address invasive plants, native plant overgrowth and algae proliferation.
 - ✓ It is proposed the plan be funded through the creation of a Lake Improvement District (LID) and/or “Friends of Lake Orono Fund.”
- Maintain, restore or establish natural upland buffers to encourage wildlife, help prevent decline in species, deter Canada geese, and provide enjoyment for future generations.
 - Primary strategy to achieve will be the Lake Orono Improvement Association partnering with the **Sherburne County COLA** and using City of Elk River programs and educational mediums.
- Increase public awareness and use of Best Management Practices targeting the reduction of sedimentation, phosphorus and salt inputs from upstream and shoreline sources to Lake Orono.
 - Establish detailed plans to improve water clarity in both Upper and Lower Lake Orono by further pinpointing sources and implementing a reduction action plan.
 - Partner with the **Sherburne County COLA** and use City of Elk River programs and educational mediums.
- Build the public perception and “brand” of Lake Orono as a quality recreation destination, valuable community asset and safe lake.
 - Primary strategy to achieve will be using Lake Orono Improvement Association and City of Elk River communication tools, programs and educational mediums.

Statement of Problems and Objectives

The included lake management plan provides great detail on the problems to be addressed. In summary, there are four specific proposed action areas where OLID funds would assist. They are:

1. Lake Orono was last dredged in 1998. The shallower water column that has been caused by the accurately projected sedimentation that has accumulated since reduces navigation, recreational opportunities, safety and economic value of both the lake as a community asset and adjacent public and private property value. Last year the City of Elk River received both state funding approval of \$1.5 million and a local sales tax referendum approval of \$1 million to advance our [Lake Orono Restoration and Enhancement \(LORE\)](#) project (see the Lake Management Plan pages 28-36). We propose funding approximately \$650,514* in local private property owner OLID assessments to be used in conjunction with City and State funds for restoring Lake Orono by

dredging approximately 130,000 cubic yards of sedimentation impairments and reuse the good soil. Further, establish a plan to maintain its sediment catch basin, fisheries and habitat.

*Though the City of Elk River will not be an OLID member, it owns various lake properties. As was the case with our previous dredging project in 1998, the City will be assessed 26 units in total at a currently estimated cost of \$99,486.

2. Curly-leaf pondweed (CLP) has been present in Lake Orono since 2003, and when unmanaged chokes out native vegetation and is a nuisance to safe navigation and lake users. We propose expanding CLP remediation to all infested public and private areas lake-wide (approx. 85 acres of 300 acres) through herbicide treatment (which can be done in up to 15% of the littoral area) and either adding mechanical harvesting (which can be done in up to 50% of the littoral area) or working with the MN DNR to ensure that all requirements for a [permit with a variance](#) are met.

However, a substantial area in western Upper Lake Orono that causes the current need to exceed the standard 15% herbicide treatment limits could likely successfully be addressed through the drawdown and freeze that would occur as part of the LORE project.

Related, the LOWQC has appreciated the ongoing support and guidance from MN DNR staff in permitting within standard 15% treatment requirements for both aquatic invasive species and aquatic plant management in public waters and on private lakeshores the last few years. The herbicide treatments have proved to be effective and far more practical than CLP hand-pulling, which prior to treatments was the only available course of action to address these concerns.

3. Lake Orono was placed on the State of Minnesota Impaired Waterbodies List in 2009 for mercury contamination in fish and again in 2011 for excessive nutrients / eutrophication. Annual lake testing data that we have collected since 2003 clearly demonstrates a discrepancy in water quality between Upper and Lower Lake Orono. We intend to target that issue and improve water clarity and quality in both Upper and Lower Lake Orono by further pinpointing harm sources and implement a reduction plan. The City already has been and will continue to conduct water quality sampling for tributaries that drain into Lake Orono.
4. In our 2016 Lake Orono Survey, 46% of respondents fished the lake, 94% of responders said that good fishing is of importance to them, 45% used the lake for passive activities (photography, painting, birding, gardening, enjoying view) and 53% rated scenic environment as very important. That provides evidence of strong local support of our goal to further manage fisheries, habitat and maintain or improve their quality.

Please see specific action area details in the included Implementation Plan on pages 65 through 78 and itemized annual expenditures and activities on pages 79 and 80.

Other lake improvement and water quality goals that may be considered in the future are as follows:

- In addition to Curly-leaf pondweed, monitor and manage (if necessary) additional forms of aquatic invasive species (AIS) should they occur (e.g. Eurasian watermilfoil, zebra mussels). The OLID would then coordinate with the MN DNR to devise, adopt and carry out any additional management actions needed.
- Contract additional hours for certified Level 1 AIS inspections at the public boat landing.
- Conduct water quality improvement and other conservation programs.
- Collaborate with the MN DNR to develop plans to address lake-wide nuisance weed and algae removal (per [MN Statute 103G.621](#)).

- Serve as local sponsor and/or recipient for state, federal and private project grants. As a local unit of government the OLID is eligible for grants, including federal, to support its efforts to control, manage and contain aquatic invasive species.
- Apply for and comply with the MN DNR and other state agency's local permits and policies required for specific lake management projects. Support water quality monitoring and other lake research projects currently being conducted by the LOWQC.
- Undertake lake research projects. The OLID will review all available data and work collaboratively with the City of Elk River, Sherburne SWCD, Sherburne County COLA, Sherburne County Water Board, MN DNR and MPCA on projects warranted by the data.

Necessity of the Proposed District to Promote Public Health or Public Welfare

The Orono Lake Improvement District (OLID) is needed to achieve an equitable and stable ongoing funding means to manage water quality, sedimentation, existing aquatic invasive species (AIS), nuisance weeds, algae, and to be positioned to cope with future AIS threats.

The funds would complement City, County, State and Lake Association investments that alone are not sufficient due to the extensiveness of the concerns.

The needs for the OLID parallel many of those stated in Minnesota Rule 115.0950 ELIGIBILITY FOR LAKE IMPROVEMENT DISTRICTS such as: Studying the sources of and solutions to lake problems, preserving and improving water quality by means of water and related land management, sedimentation and siltation control, shoreline erosion control, aquatic nuisance control, preserving and improving fish and wildlife habitat, preserving and improving recreational potential of the lake, and any other purposes approved by the Elk River City Council pursuant to Minnesota Statutes, sections 103B.551, subdivision 3; 103G.605; and 103G.621.

Benefits to Property from the Establishment of the Lake Improvement District

Property owners and all Elk River residents who use Lake Orono will enjoy a cleaner, clearer and safer-to-navigate lake that will provide better recreational opportunities and improve wildlife habitat. A managed lake will also maintain and improve property values as well as add to residents' enjoyment. It would also be an added way to be eligible for public grants.

We find it is necessary to create this District to promote public health and public welfare as set forth in Minnesota Statutes Section 103B.521, Subd. 1(a)(2) as the dredging of the lake will benefit the owners of the properties in the District, the users of the lake, and the plants and animals within Lake Orono.

Boundaries of the Proposed District

The proposed OLID would include as members all riparian properties that abut Lake Orono, and private property owners with deeded lake access, that are not tax exempt. Further, the proposed OLID for Lake Orono ID: 71-0013-01/02 matches the definition in the special layer of the MN DNR Lakes GIS system (see Exhibit B: Map of proposed Orono Lake Improvement District).

Number of Directors Proposed for the District

It is proposed that the OLID have five directors – representing each of the four Lake Orono districts (West, Upper, Middle and East) established by the Lake Orono Improvement Association (LOIA) and one at-large member. As per statute the City Council will appoint the first board, but after that all directors are elected by the membership at the annual meeting. All directors must be property owners in the district and a majority must reside in the district.

Proposed Water Related Management Programs to be Undertaken

The primary and initial goals of the Orono Lake Improvement District is to assist in implementing a comprehensive program to alleviate current ecological stressors and recreational impairment on Lake Orono, brought about by aquatic invasive species, native plant overgrowth, algae proliferation, excess nutrients and sedimentation. Additional goals are to improve water quality, fisheries and habitat.

The methods for achieving these goals included in our attached Lake Management Plan are: Lake drawdown, lake restoration through sedimentation removal and reuse, standardized plant point-intercept and pre-treatment surveys, herbicide treatments, hand-pulling of plants, signage and education. Detail for each goal area is included in a unique section of the Lake Management Plan and also in the Alternative Analysis (pages 55-64), Implementation Plan (pages 65-78) and budget sections (pages 79 and 80).

Current and Projected Funding for AIS:

Current and previous activities to control AIS have been funded and implemented by the LOWQC, including annual surveys, herbicide treatments for CLP, private property owner lakeshore treatments, hand-pulling, and education. CLP treatment funding sources include individual, LOIA and City of Elk River donations and Sherburne SWCD grants (funded through Minnesota's Aquatic Invasive Species [AIS] Prevention Aid program, MN Statutes 477A.19).

CLP has been present in Lake Orono since 2003 with hand-pulling being the only containment method available until the last two years due to budgetary constraints. At present there is no evidence of zebra mussels or other AIS in the lake, based on data from point-intercept surveys and volunteer conducted zebra mussel veligers plankton net testing conducted the last few years.

The LOWQC and LOIA have determined that sustainable and predictable funding is critical and necessary to address the growing AIS problems and challenges.

- Without continued herbicide treatments, survey documentation and potential mechanical harvesting CLP will be unmanaged and continue spreading.
- Though laudable, individual CLP fund donations are trending down and are not sustainable.
- Costs for lake vegetation management plan elements and herbicide treatments are increasing.
- LOIA dues, donations and publicly available grants are not sufficient to address the growing AIS problems and challenges.

Proposed Method of Financing the Orono Lake Improvement District Operations

The LOIA and LOWQC recommends a variety of sources be considered in funding the operations of the proposed OLID, including an equal pay assessment on all properties within the proposed district when needed. Other funding sources such as federal and state grants or existing recurring lake management plan fund contributions will be the first choice as sources of financing programs and projects. Additional funding methods include fees to affected properties, general obligation bonds, grants (federal, state, non-profit) and other donations. In addition, existing funds through or obtained by the LOWQC partnership will continue to complement those generated by the OLID to support our Lake Management Plan.

Procedures for Planning, Decision Making, Public Involvement and Program Monitoring

Four public open house information and feedback sessions regarding OLID needs for establishing, purpose and procedural steps for creation have already been conducted. Organizational procedures and processes will be developed within the OLID's by-laws, and will include regular and special meetings, annual meetings, official notices, mailings and a website.

Long-term Monitoring of OLID programs and projects will be the responsibility of the OLID, in close collaboration with the City of Elk River, MN DNR, MPCA, Lake Orono Improvement Association, Sherburne SWCD and Sherburne County Coalition of Lakes.

Financial and Proposed Budget

Sample Initial Budget: 2019 – 2020

	Project	Description	Estimated Budget
1	Lake Orono Restoration and Enhancement	Establish a program to remove a minimum of 130,000 cubic yards of sediment to return Lake Orono to its historic baseline depth (an average of 5' or greater). *First of a five-year \$905.48 lakeshore property owner annual assessment (\$4,527.38 in total per unit), as part of the \$1,750,000 local match to state general obligation bonds of \$1,500,000.	\$130,375*
2	Curly-leaf Pondweed Control	Continue treatment of this invasive species according to LOWQC recommendations. In past years the treatment has ranged from 4.3 acres to 21.91 acres. In 2020 the estimated acres to be treated is 15 acres. If Sherburne AIS Grant funds remain available and are approved, cost will be reduced.	\$6,555
3	Increased water quality testing and analysis	Improve water clarity and quality in both Upper and Lower Lake Orono by further pinpointing harm sources and implementing a reduction plan. Methods include volunteer bi-weekly collection of dissolved oxygen and water temperature data and additional chemical water sample collection and analysis may be needed.	\$500
4	Lake vegetation management planning	Contract with external consultant expertise to effectively address ongoing sedimentation remediation, invasive plants (AIS), native plant overgrowth and algae proliferation and/or meet MN DNR requirements for an AIS permit with a variance (as needed).	\$4,000
5	Lake surveys, data collection and analysis	Conduct additional surveys, other data collections or consultant data analysis and reporting to effectively address ongoing sedimentation remediation, invasive plants (AIS), native plant overgrowth and algae proliferation and/or meet MN DNR requirements for an AIS permit with a variance (as needed).	\$2,000
6	Web licensing and maintenance	OLID membership communication, official document repository, director nomination forms, absentee ballots, etc.	\$300
7	Office supplies	Annual meeting notice mailing, location rental or damage deposit, meeting or general supplies.	\$400
8	LID Board Liability Insurance	Secure standard Directors and Officers Liability for the OLID Board of Directors.	\$750

Note: A carryover of funds from year to year may be allowed to accommodate cash flow.

Estimate of the Total Equalized Valuation of the Property within the District

- Estimated Total Market Value of the 188 parcels: \$48,564,300
- Estimated Mean Market Value of the 188 parcels: \$263,200

Local Ordinances Regulating the use of the Lake or any Public Access (copies provided as attachment)Chapter 30 - LAND DEVELOPMENT REGULATIONSARTICLE VI. - ZONING[DIVISION 10.5.WETLAND BUFFERING REQUIREMENTS](#)[DIVISION 11. - FLOODPLAIN MANAGEMENT](#)[DIVISION 12. - SHORELAND MANAGEMENT](#)Chapter 50 - OFFENSES AND MISCELLANEOUS PROVISIONSARTICLE IV. - OFFENSES INVOLVING PUBLIC SAFETYDIVISION 2. - DANGEROUS WEAPONS[Sec. 50-117. - Hunting and shooting](#)Chapter 74 - TRAFFIC AND VEHICLESARTICLE V. - SNOWMOBILES AND ALL TERRAIN VEHICLES (ATVs)[Sec. 74-154. - Operation within the city limits, snowmobiles](#)[Sec. 74-157. - Operation within the city limits, ATVs](#)Chapter 86 - WATERWAYS[ARTICLE II. - WATER SAFETY](#)Local Interest and Commitment to Future Lake Management

Local interest and commitment have strongly been demonstrated since 1995 with the initial creation of our Lake Orono Sedimentation Task Force partnership with the City of Elk River and Sherburne SWCD to successfully address sedimentation concerns in 1998.

After project completion in 1999, the group became the Lake Orono Water Quality Committee (LOWQC) partnership to collaborate on all areas needed to protect and enhance the quality of Lake Orono, its fisheries and wildlife habitats; preserve its economic, recreational and natural environmental values; and promote its safe and responsible use. The LOWQC published its first formal lake management plan in 2004.

A public survey was conducted in 2016 to provide feedback for our current LOWQC Lake Management Plan in regards to Lake Orono problems and what solutions are supported. It is evident from the survey results that Elk River resident's feedback is aligned to the LOWQC Lake Management Plan identified challenges, which include:

1. Sedimentation of the lake bed,
2. Proliferation of curly-leaf pondweed,
3. Nuisance native plant overgrowth and algae and
4. Impairment of water quality.

See Figure 4 titled Lake Orono Problems. This graphs the responses to the question, "To what extent do you feel each of the following is a problem on Lake Orono?" The results were:

- 98% feel water quality is a problem
- 92% feel algae is a problem
- 88% feel aquatic plants are a problem
- 83% feel sedimentation is a problem

Assessment of Adverse Impacts

No adverse effects from the implementation of the Orono Lake Improvement District are anticipated. All procedures for controlling and containing sedimentation, aquatic invasive species, aquatic plant management, water quality, fisheries or habitat will adhere to the guidelines provided in MN Statute and Rules, and requirements of the MN DNR.

Statement of Adequacy and Ownership of Public Accesses, Lands and Beaches

- Ownership: City of Elk River
- Type: Concrete
- Description: In Lake Orono Park, 0.5 mi W of Elk River on US Hwy 10 to W shore
- 20 vehicle/trailer parking spaces
- 1 dock
- Public beach to the south of boat landing
- Public fishing pier to the south of the public beach
- All are adjacent to Lake Orono Park

Contacts

MN DNR Area Hydrologist	James Bedell
MN DNR Aquatic Invasive Species Specialist	Christine Jurek
MN DNR Aquatic Plant Management Specialist	Audrey Kuchinski
MN DNR Land Use Hydrologist	Kathleen Metzker
MN DNR Fisheries Supervisor	Joe Stewig
MPCA North Central Watershed Supervisor	Seth Goreham
Sherburne SWCD	Dan Cibulka
City of Elk River	Amanda Bednar
City of Elk River	Brandon Wisner
Lake Management Inc.	Beth Algren
Lake Management Inc.	Mike O'Connell
Endangered Resource Services, LLC	Matthew Berg

Attachments

- [Map of proposed Orono Lake Improvement District](#) (also included as Exhibit A)
- [Sample OLID Petition Signature Form](#) (also included as Exhibit B)
- [Lake Area Count of OLID Petition Signatures](#) (also included as Exhibit C)
- [2017-2020 Lake Orono Management Plan](#)
- [Lake Orono Local Ordinances](#)

Respectfully,

Christy Cox President, Lake Orono Improvement Association
Patrick Plant Chair, Lake Orono Water Quality Committee

Exhibit A: Map of proposed Orono Lake Improvement District

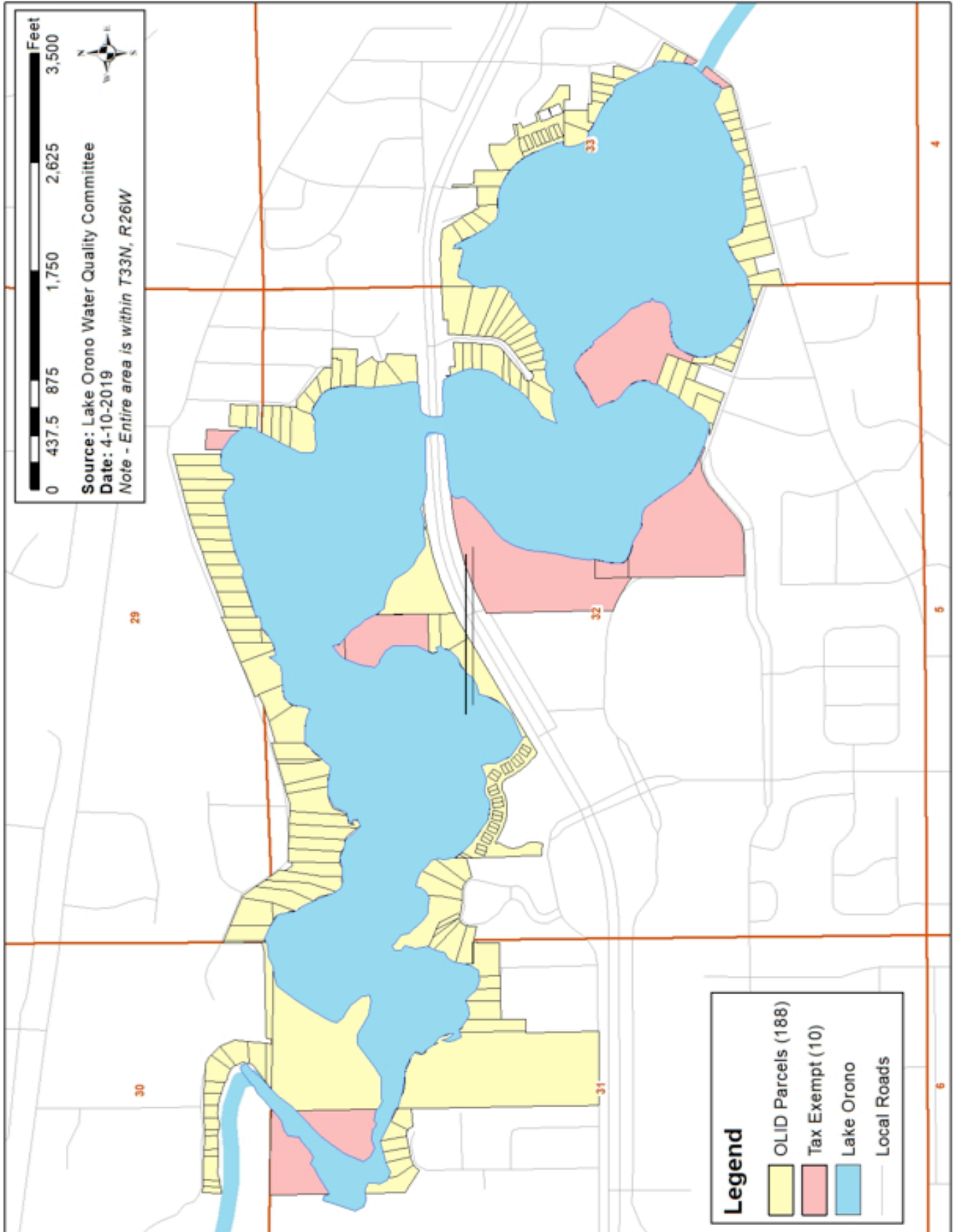


Exhibit B: Sample OLID Petition Signature Form

PETITION REQUESTING THE ELK RIVER CITY COUNCIL TO FORM AN ORONO LAKE IMPROVEMENT DISTRICT

Proposed Name: ORONO LAKE IMPROVEMENT DISTRICT (Elk River, MN)

Necessity: The Orono Lake Improvement District (OLID) is needed to achieve an equitable and stable ongoing funding means to manage water quality, sedimentation, existing aquatic invasive species (AIS), nuisance weeds, algae, and to be positioned to cope with future AIS threats. The funds would complement City, County, State and Lake Association investments that alone are not sufficient due to the extensiveness of the concerns.

- Specific Actions:**
1. Restore Lake Orono by dredging approximately 130,000 cubic yards of sedimentation impairments and reuse the good soil. Further, establish a plan to maintain its sediment catch basin.
 2. Expand Curly-leaf Pondweed remediation to all infested public and private areas lake-wide (approx. 85 acres).
 3. Improve water clarity and quality in Upper and Lower Lake Orono by further pinpointing harm sources and implementing a reduction plan.
 4. Manage fisheries, habitat and maintain or improve their quality.

Benefits: Property owners and all Elk River residents who use Lake Orono will enjoy a cleaner, clearer and safer-to-navigate lake that will provide better recreational opportunities and improve wildlife habitat. A managed lake will also maintain and improve property values as well as add to residents' enjoyment. It would also be an added way to be eligible for public grants.

Boundaries The proposed OLID would include all properties that abut Lake Orono.

Directors The OLID would have 5 directors. The initial directors would be appointed by the City of Elk River; thereafter they would be elected at an annual meeting of the property owners. It is requested that the City of Elk River provide administrative support and oversight for the OLID.

Request: Petitioners request the Elk River City Council to establish the Orono Lake Improvement District in accordance with Minnesota Statutes 103B.521 as proposed in this petition.

[Up to two owners of each property within the proposed Orono Lake Improvement District are eligible to sign this petition.]

The following persons signing this petition do hereby state that they are owners of real estate that abuts Lake Orono and agree with the request to form an Orono Lake Improvement District:

Signature	Printed Name	Address	Date
_____	_____	_____	_____
_____	_____	_____	_____

Please return to: Lake Orono Improvement Association • 13184 Island View Drive NW, Elk River MN 55330

Exhibit C: Lake Area Count of OLID Petition Signatures

Orono Lake Improvement District (OLID) Petition Signature Totals*

	# Individuals	Percentage
Lake Orono West	31	44%
Lake Orono Twin Homes HOA	21	62%
Lake Orono Upper	40	61%
Lake Orono Middle	17	45%
Lake Orono East	48	65%
Total	157	55%

*Original forms and tracking spreadsheets to be delivered to the City Clerk of Elk River.