

2024 MN Watersheds Project & Program of the Year

Detailed Award Information Form

1) **Award Category** (check one)

Project



Program

2) **MAWD Region** (check one):

One



Two

Three

3) **Watershed District:** *BOIS DE SIOUX WATERSHED DISTRICT*

4) **Project/program name:** *LAKE TRAVERSE WATER QUALITY IMPROVEMENT PROJECT NO. 1*

5) **Nominator (if different from above watershed district)**

6) **Project/Program Summary (Limit 150 words) to be read at the awards program during the annual meeting banquet:**

The Lake Traverse Improvement Project represents a successful partnership between landowners, permitting authorities, and grantors to remedy obvious and significant channel erosion annually contributing so much sediment that a small island had formed in Lake Traverse. It was obvious from the start that this project would be complicated and costly. Beginning January 2019, engineering and legal staff guided us through three distinct phases, designing and constructing the phases in an overlapping approach. With each completed phase, confidence was earned from landowners and funding entities that we could complete the project in its entirety – which we did, September 2024. Two miles of channel have been stabilized, and sixty-two acres were put under permanent easement. It is due to the tenacity of local landowners and staff that this project was pursued and finished successfully.

7) **Define need:**

Lake Traverse is a popular recreation site, offering border lake fishing and ice fishing opportunities. This problem, that outlets directly into Lake Traverse, was featured prominently on the front page of the September 20, 1984 Wheaton Gazette, portions of which are a tributary stream's and legacy drainage system, dramatic erosion was widely recognized locally as an insurmountable and worsening problem. The channel had become a 20+' deep ravine, continually eroding into a larger problem until a visible delta of sediment had formed into Lake Traverse. Significant velocity of water, steep sidelopes, and sandy soils all contributed to severe downcutting within the channel.

The channel is regulated in different sections as a public water, Traverse County Ditch #52, and a private watercourse, creating additional challenges for how to effectively

design, permit and fund any project to repair the damage. Preliminary studies by local, state, and federal agencies were initiated several times but further remedial efforts were abandoned due to the high cost of development and construction. Affected landowners continued to request assistance in addressing the ongoing issues, and in 2019 a local water management district was created which opened opportunities for local match on outside funding sources, and allowed regulatory permitting and design to continue.

8) Goal/purpose of the project/program:

Overall, the goal of the project design was to reduce channel velocity and minimize the likelihood of channel scour within a portion of a channel contributing to Lake Traverse that has experienced significant downcutting/degraded sideslopes and erosion due to its steep channel grade and sandy soils.

9) Describe project/program:

Over the course of three phases, project designs featured boulder and rock riffle structures, permanent rock checks positioned to create natural pools and riffles, and flattening/widening of the channel profile through a series of stair-steps and widening of the channel cross-sections.

10) Describe public benefit:

Phase 1: Annual reduction of 188 lbs total phosphorus and 750 tons sediment delivered to Lake Traverse; 0.6 channel miles stabilized; 21.32 acres of permanent easement

Phase 2: Annual reduction of 113 lbs total phosphorous and 450 tons sediment delivered to Lake Traverse; 0.3 channel miles stabilized; 6.01 acres of permanent easement

Phase 3: Annual reduction of 565 lbs total phosphorous and 2,250 tons sediment delivered to Lake Traverse; 1 channel mile stabilized; 35.37 acres of permanent easement

Total: Annual reduction of 866 lbs total phosphorous and 3,450 tons sediment delivered to Lake Traverse; 1.9 channel miles stabilized; 62.7 acres of permanent easement

11) Watershed plan reference (where is the problem/solution identified in the watershed plan, does it address stated problems, objectives and goals):

The project makes direct measureable progress towards five of the 12 goals within the Bois de Sioux River and Mustinka River Joint Comprehensive Watershed Management Plan: Sediment Loading, Soil Health, Ditch System Instability, Nutrient Loading, Unstable Channels.

12) Was project goal achieved? If so, how was the success measured?

The project was constructed as designed.

13) Watershed or water body name to be protected or improved by project or program (if applicable)

Prior to construction Lake Traverse (78-0025-00) was listed as a plan resource priority for protection (nearly impaired for excess sediment). Traverse County Ditch #52 is listed as a plan resource priority for drainage system instability.

14) Watershed or water body information (e.g., size, watershed area, classification, description):

The contributing watershed is 21,892 acres. Receiving Lake Traverse is 11,200 acres in size.

15) Project partners (financial or inkind support)

<u>Agency or organization</u>	<u>% Participation</u>
<i>Red River Watershed Management Board</i>	33 %
<i>Board of Water and Soil Resources</i>	31 %
<i>Clean Water Fund – Legacy Amendment Act</i>	
<i>Bois de Sioux Watershed District / Local Government Unit</i>	13 %
<i>Water Management District / Financed by Traverse County</i>	10 %
<i>AgBMP Loan</i>	
<i>Department of Natural Resources</i>	8 %
<i>Conservation Partners Legacy – Legacy Amendment Act</i>	
<i>Board of Water and Soil Resources</i>	6 %
<i>Clean Water Fund – Watershed Based Implementation Funds</i>	

16) Start date: January 2019

17) Project status:

On-going Project/Program

Completed:

Completion date: September 2024

18) Project cost (this can be provided as total cash cost or a breakdown can be provided to show the cost of various project elements and partners):

Expense	
Project Construction	\$ 3,778,499.83
Administration & Permitting Expense	\$ 8,861.26
Advertising/Notice Expense	\$ 3,052.85
Engineering Services	\$ 873,474.39
Land/Right of Way	\$ 218,309.96
Legal Fees	\$ 44,459.19
Manager Compensation	\$ 320.94
<u>Miscellaneous Expenses</u>	<u>\$ 138.00</u>
Total Expense	\$ 4,927,116.42

19) Letters of support:

Each application may have up to two letters of support. The letters can be from individuals, agencies, organizations, or local units of government. Letters from staff or managers of the sponsoring District will not be accepted. Attach letters to this application as a pdf document.

Attached – Petition for Support (15 pages)

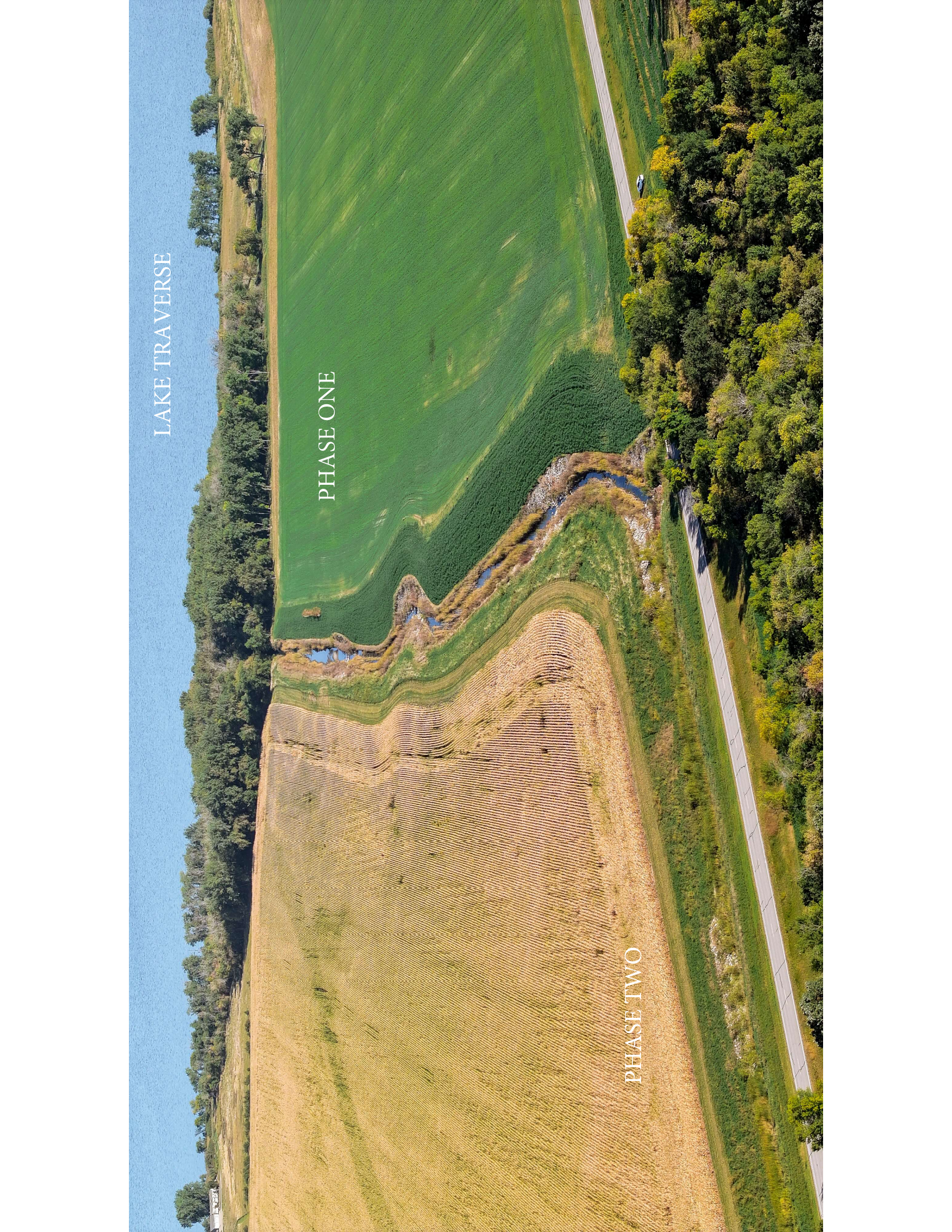
20) Photos:

As noted in the instructions, each nomination must be accompanied by **at least 4 (4) photos**, but no more than eight (8) of the project or program. The photos must be in a digital format.

LAKE TRAVERSE

PHASE ONE

PHASE TWO

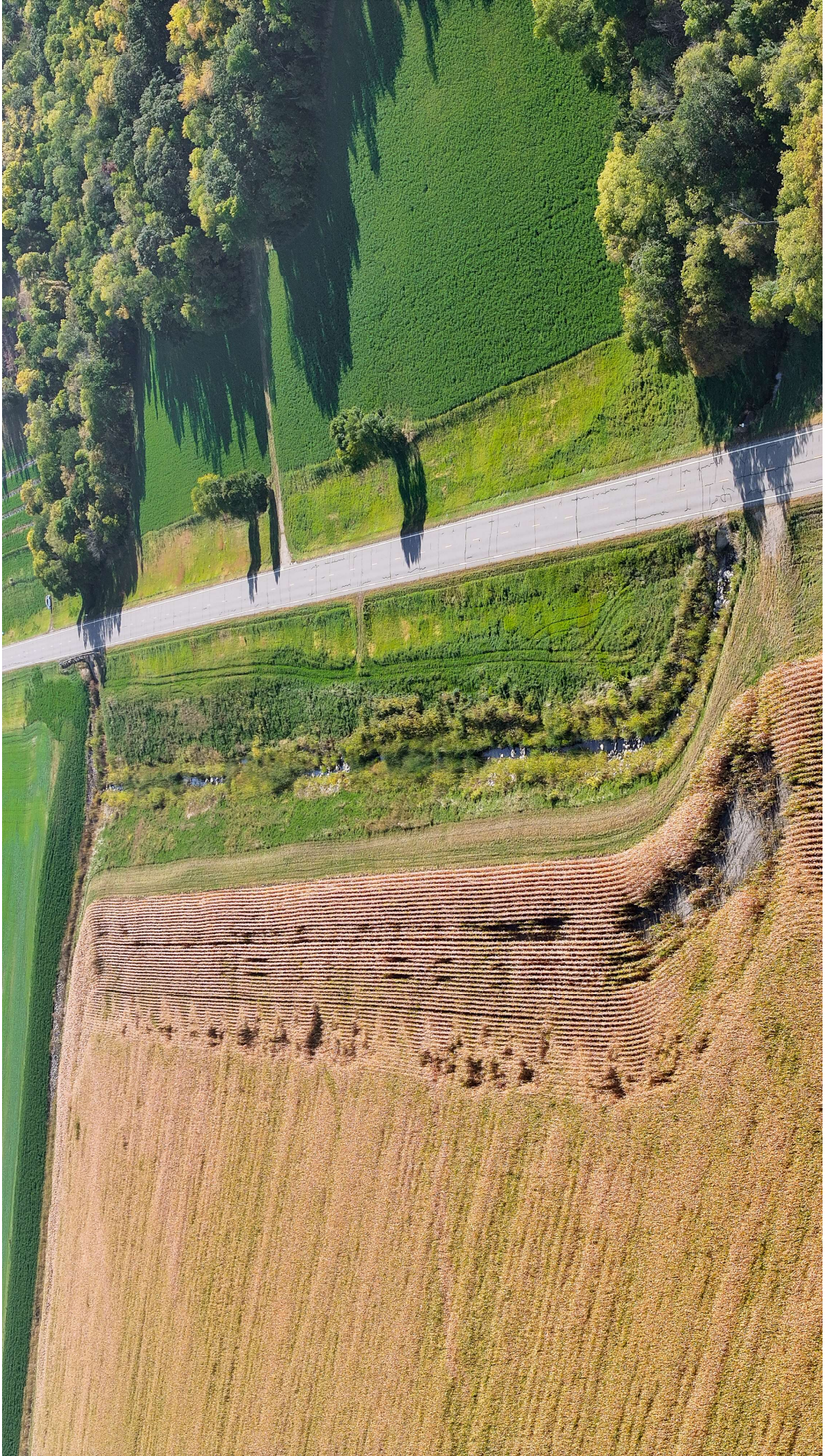




LAKE TRAVERSE

PHASE ONE

PHASE TWO





PHASE THREE



PHASE THREE

LAKE TRAVERSE

PHASE THREE





PHASE THREE