

Tepetonka Golf Course Project Environmental Assessment Worksheet

Proposer: Tepetonka Club, LLC
RGU: Kandiyohi County

July 2023

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Environmental Assessment Worksheet

This most recent Environmental Assessment Worksheet (EAW) form and guidance documents are available at the Environmental Quality Board's website at: <https://www.eqb.state.mn.us/>. The EAW form provides information about a project that may have the potential for significant environmental effects. Guidance documents provide additional detail and links to resources for completing the EAW form.

Cumulative potential effects can either be addressed under each applicable EAW Item or can be addressed collectively under EAW Item 21.

Note to reviewers: Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the *EQB Monitor*. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

1. Project Title

Tepetonka Golf Course

2. Proposer

Tepetonka Club, LLC

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Title: Developer
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City, State, ZIP: Edina, MN 55435
Phone: (210) 850-5533
Email: markh@memberassist.com

3. Responsible Governmental Unit

Kandiyohi County

Contact person: Eric Van Dyken
Title: Zoning Administrator
Address: 400 Benson Avenue SW
City, State, ZIP: Willmar, MN 56201
Phone: (320) 231-6229 x5257
Email: eric.vandyken@kcmn.us

4. Reason for EAW Preparation

Minnesota Rules 4410.4300, subpart 36, Item A: *For golf courses, residential development where the lot size is less than five acres, and other projects resulting in the permanent conversion of 80 or more acres of agricultural, native prairie, forest, or naturally vegetated land, the local governmental unit is the RGU, except that this subpart does not apply to agricultural land inside the boundary of the Metropolitan Urban Service Area established by the Metropolitan Council.*

Required:

- ☐ EIS Scoping
☒ Mandatory EAW

Discretionary:

- ☐ Citizen petition
☐ RGU discretion
☐ Proposer initiated

5. Project Location

County: Kandiyohi
City/Township: Lake Andrew Township
PLS Location (¼, ¼, Section, Township, Range): NE ¼, Section 14, Township 121, Range 35 and W ½, NW ¼, Section 13, Township 121, Range 35
Watershed (81 major watershed scale): Chippewa River
GPS Coordinates: N 45.293 E -95.030
Tax Parcel Number: 23-014-0010, 23-013-0030, 23-013-0035, 23-013-0040

6. Project Description

a. Provide the brief project summary to be published in the EQB Monitor, (approximately 50 words).

Tepetonka Club, LLC is proposing to construct a golf course with additional supporting golf course amenities, including a clubhouse, comfort station, on-site lodging, and maintenance facilities, on a previously undeveloped site in Kandiyohi County, Minnesota.

b. Give a complete description of the proposed project and related new construction, including infrastructure needs. If the project is an expansion include a description of the existing facility. Emphasize: 1) construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes, 2) modifications to existing equipment or industrial processes, 3) significant demolition, removal or remodeling of existing structures, and 4) timing and duration of construction activities.

Introduction

The proposed Project is the development of the Tepetonka Club (Tepetonka) on approximately 228 acres of land (herein referred to as “the site”) in an unincorporated portion of Lake Andrew Township, Kandiyohi County, Minnesota (Figures 1 and 2, Appendix A). The site was settled for agricultural use over 100 years ago. The oldest available photograph is from 1938 (Figure 2b, Appendix A) and shows active agriculture across a majority of the site, excluding the creek, and remained that way until the early 1990’s when the western two thirds was placed in the U.S. Department of Agriculture (USDA) Conservation Reserve Program. Past manipulation of the site included tree clearing, wetland drainage, and stock pond creation to support the agricultural land use.

Tepetonka is planned as a ‘destination’ private golf course and lodging with limited members and rounds played per year. The vision is to create a golf experience that incorporates a stewardship value of the surrounding environment and a type of golf that is not currently realized in Minnesota. Tepetonka’s course design is planned to fit the rolling hill landscape and take advantage of the natural topography without the mass grading typically needed to build Minnesota courses. Given the geology of the site, the design is similar to a links course seen in areas of Ireland and Scotland, where the lack of trees and windy hilltops set the stage for fast and firm fairways.

The proposed Project incorporates restoration of native prairie outside active play area, restoration of wetlands from past land use drainage, vegetation enhancements to remove invasive species, and streambank restoration of severely eroded areas along Shakopee Creek. The goal of the designers is to be recognized stewards of the land and Shakopee Creek to create a unique golfing experience that showcases the exceptional natural setting of the Tepetonka Club. The long-term success of the Tepetonka Club is predicated on the ability to restore the site and be effective stewards of the land.

Golf Course

The proposed Project includes 18 holes of links style golf with approximately 6,800 yards of active play and a 9-hole short course designed for fun walks with a clubhouse on the northeastern part of the property. As shown on Figure 3 in Appendix A, the course is laid out in and around Shakopee Creek and includes five bridge crossings. Electric carts would be available for use on the course with the bridge crossings structurally built to withstand the weight of the carts and other maintenance vehicles. Appendix B includes a preliminary site plan of the golf course.

Grading would be done to shape the fairways around the existing topographic highs; the goal is to minimize grading to the extent practical, taking advantage of existing topography that naturally fits a golf hole layout. The designers have stated there are six golf holes that require no grading, ‘we could mow the grass and play them today.’ Preliminary soil testing provide evidence that native soils are conducive to golf course design and grass establishment. Sand would be brought to the site for certain fairway areas, putting greens, and bunkers, with the goal of encouraging infiltration and discouraging runoff. No waste product generation is anticipated, and excess soil can be utilized on-site for berms and grading.

The current vegetation is dominated by smooth brome grass and volunteer cedar trees. The designers intend to keep as many cedar trees as possible to retain the natural setting of the site and minimize disturbance. In active golf play areas and select inactive golf play areas, the smooth brome grass, an invasive and introduced species, would be eradicated, and replaced with proven native and/or naturalized turf species.

To aid in the development of the grassing plan, Tepetonka has retained a turfgrass consultant, formerly a turfgrass educator with the University of Minnesota Extension, to lead the grassing specifications and provide recommendations for fairways, rough, greens, and tee boxes. Turfgrasses specified for the proposed Project include creeping bentgrass (*Agrostis stolonifera*), strong and slender creeping red fescue (*Festuca rubra* ssp. *rubra* & ssp. *litoralis*), hard fescue (*Festuca trachyphylla*), and Chewings fescue (*Festuca rubra* ssp. *commutata*), depending on location within the course. The species and varieties chosen offer low input characteristics, such as reduced water and fertilizer requirement, disease resistance, and improved environmental stress tolerance. The fescues being utilized are in the category of fine-leaved fescues and have been extensively studied and recommended by the University of Minnesota as a low-input option for golf.¹ Additionally, they are considered native to North America, having persisted for more than three centuries.² Creeping bentgrass varieties specified for the Project were developed by Rutgers University and have demonstrated superior resistance to turf diseases, such as brown patch (*Rhizoctonia solani*) and dollar spot (*Sclerotinia homoeocarpa*), resulting in a reduced fungicide requirement. Bentgrass can also be considered native to the United States.³

¹ Petrella, Dominic P.; Bauer, Sam; Horgan, Brian P.; Watkins, Eric. 2021. [Exploring fine fescues as an option for low-input golf greens in the north-central USA](#). *Crop Science*. September/October. 61(5): p. 2949-2962.

² Stier, John C.; Horgan, Brian P.; Bonos, Stacy A. 2013. Origins of North American Turfgrasses in *Turfgrass: Biology, Use, and Management: Agronomy Monograph 56*. American Society of Agronomy.

³ Stier, John C.; Horgan, Brian P.; Bonos, Stacy A. 2013. Origins of North American Turfgrasses in *Turfgrass: Biology, Use, and Management: Agronomy Monograph 56*. American Society of Agronomy.

Native prairie vegetation would be restored in areas adjacent to active play areas described above. Trees that need to be removed would be stockpiled and used in the restoration of streambanks through a process called *toewood*, discussed further in Item 14.d. An irrigation pond is proposed to collect surface water which would be reused for irrigation of golf fairways, tees, and greens. An irrigation well would be constructed to supplement irrigation needs. Irrigation scheduling will be driven by an on-site weather station, as well as portable and in-situ soil moisture sensors, with the goal of maintaining firm and fast playing surfaces through judicious irrigation practices that minimize well pumping to the extent practical.

The proposed Project would include best management practices (BMPs) for turf maintenance to minimize impacts to nearby surface waters. BMPs established in *The Minnesota Golf Course Reference Handbook (Handbook) of Management Practices*,⁴ prepared by the Minnesota Golf Course Superintendents Association (MGCSA), would be utilized as a guide for identifying BMPs to apply to the proposed Project. The intent of the handbook is to provide guidelines pertaining to golf course stewardship including water conservation, water quality, pesticide/fertilizer application, and habitat management.

This Handbook has revolutionized turf management on golf courses by applying targeted application principles. Superintendents have learned to apply fertilizers by either first completing soil nutrient tests or testing small plots to ensure a nutrient deficiency is the issue. In the past, the common practice was to default to a mass application of fertilizer, wasting money and potentially causing nutrient runoff to surface waters. Recently, the Golf Course Superintendent's Association of America published survey data demonstrating a significant reduction in the total amount of nitrogen (↓41%), phosphorus (↓59%), and potassium (↓54%) applied on golf courses across the nation from 2006 to 2022, likely attributable to the BMP initiatives.⁵ Using the Handbook BMPs at the proposed Project would minimize fertilizer use and potential nutrient runoff as discussed further in Item 12 .

The golf course has been designed to minimize disturbance within the shoreland associated with Shakopee Creek. Holes 14 and 15 in the southeastern portion of the golf course are closest to Shakopee Creek and a portion of disturbance would occur within the shoreland. Enhanced BMPs would be implemented for turf maintenance in shoreland areas. Special care will be taken using “spoon feeding,” a precise form of nutrient management consisting of the frequent application of liquid fertilizers at low rates.⁶ Spoon-feeding small amounts of fertilizer and controlled release fertilizers would aide in restricting nutrients to specific turf areas and minimize the potential for nutrients to leach into groundwater or runoff into surface waters. Any phosphorus-based fertilizer applications would be applied by personnel certified in phosphorus training for golf by the University of Minnesota Extension.

A global positioning system (GPS) guided sprayer would be used to apply nutrients and pesticides in close proximity to shoreland areas, improving application accuracy. Chemical-free buffer areas will be established around all surface water bodies. Pesticide applications, both granular and liquid, would be applied by personnel certified for turf and ornamental pesticide applications by the Minnesota Department of Agriculture. Proper chemical storage and spill prevention measures would be implemented. A maintenance facility would be constructed as part of the proposed Project to safely store fertilizers and other chemicals. Restricted Use pesticides are rarely used in golf course maintenance and would not be required during establishment and/or for maintenance of the golf course.

⁴ Minnesota Golf Course Superintendents Association. *The Minnesota Golf Course Reference Handbook of Management Practices*. January 2018. Accessed October 2022. https://www.gcsaa.org/docs/default-source/Environment/minnesota-reference-handbook.pdf?sfvrsn=7a12ec3e_0

⁵ Golf Course Superintendents Association of America. *Golf Course Environmental Profile, Phase III, Volume II*. 2022. https://www.gcsaa.org/docs/default-source/environment/22_nutrient_report_web.pdf?sfvrsn=952fcd3e_0

⁶ Howieson, M.J., and N.E. Christians. *Spoon-feeding with granular materials?*. *TurfGrass Trends*. March 2001. <https://archive.lib.msu.edu/tic/tgtre/article/2001mar7.pdf>

Golf course and turfgrass influences on connecting and adjacent surface water bodies has been studied extensively, and some studies demonstrate improvement in water quality after passing through golf courses.⁷ The established turfgrass acts as a filter for contaminants in water, similar to the benefit provided by grass buffers in agricultural systems. When managed properly, turfgrass or lawns pose minimal risk to water quality of surface waters.⁸ A summary article evaluating research on golf course water quality impacts suggests that the BMPs most effective in improving water quality include: 1) incorporation of chemical free buffer zones, 2) volume reduction in fertilizer and pesticide applied, and 3) structural improvement of on-site drainage and wetland filtration systems.⁹ These approaches will be incorporated in construction and maintenance plans for the proposed Project.

Facilities

The site includes the following four parcels:

- Parcel ID #23-014-0010 and 23-013-0040; 17703 3rd Street NE
- Parcel ID 23-013-0030; 1155 Co Rd 40 NE.
- Parcel ID 23-013-0035

On August 15, 2022, Tepetonka purchased the two properties, Parcel ID 23-013-0030; 1155 Co Rd 40 NE and Parcel ID 23-013-0035. On May 12, 2023, Tepetonka purchased Parcel ID #23-014-0010 and 23-013-0040; 17703 3rd Street NE. Figure 2 in Appendix A shows the boundaries of the four parcels within the site. Figure 3 in Appendix A shows the proposed project layout and locations of the proposed facilities. Appendix B provides a preliminary site plan of the proposed Project. Appendix C includes renderings of the proposed buildings and a floorplan of Hoggies Hang.

On the property associated with Parcel ID #23-014-0010 and 23-013-0040; 17703 3rd Street NE, most buildings would be removed to allow for the construction of course maintenance facilities. Staff parking would be available for approximately 15 vehicles. The maintenance facility area concept is shown on Figure 3, Appendix A.

The proposed clubhouse, cart storage, and parking would be constructed on as shown on Figure 3, Appendix A. The existing house on the property associated with Parcel ID 23-013-0030; 1155 Co Rd 40 NE would be moved to the northeast portion of the site and used for an office and staff housing. The clubhouse would be designed for approximately 8,410 square feet, with a one-story configuration to the southwest to capture the views of the property. The clubhouse design would contain a dining room, kitchen, bar, meeting space and golf shop. The clubhouse and lodging campus would be served water from the existing well, pending approval from the Health Department; if testing indicates that the well is not deemed adequate for this application, a new well would be installed. Multiple subsurface sewage treatment systems (SSTS) would be constructed to serve the clubhouse and facilities.

The existing steel barn located on the property associated with Parcel ID 23-013-0030; 1155 Co Rd 40 NE would be converted into Hoggies Hang, a multi-use facility consisting of a cart staging area, bar and grill, hitting bays, and bathrooms. Appendix C provides a rendering and floor plan of Hoggies Hang.

⁷ Kohler, E.A.; V.L. Poole, Z.J.; Reicher, and R.F. Turco. 2004. Nutrient, metal, and pesticide removal during storm and nonstorm events by a constructed wetland on an urban golf course. *Ecological Engineering*

⁸ Bachman, Matthew; Inamdar, Shreeram; Barton, Sue; Duke, Joshua M.; Tallamy, Doug; Bruck, Jules. 2016. A comparative assessment of runoff nitrogen from turf, forest, meadow, and mixed landuse watersheds. *JAWRA: Journal of the American Water Resources Association*. April. 52(2): p. 397-408.

⁹ Bekken, Michael. 2018. [Water quality of golf courses: What does the data say?](#) *The Grass Roots*. July/August. 47(4): p. 16, 18-22.

A short course that also serves as a warmup area is proposed as shown on the preliminary site plan in Appendix B. In addition, a two-level 6,600 square foot lodge buildings with 24 rooms would be constructed on the southern slopes of a natural amphitheater, one overlooking the short course, and the other overlooking the main golf course. The individual lodge units would not contain kitchens, all with coffee makers and small refrigerators. No meals would be cooked in the rooms. The total overnight on-site lodging of 24 rooms located on the golf course property is proposed to accommodate up to, but no more than, 50 guests.

Additionally, the northern portion of the property associated with Parcel ID #23-014-0010 and 23-013-0040; 17703 3rd Street NE, north of Shakopee Creek adjacent to County State Aid Highway (CSAH) 40 (180th Avenue NE), would be the location of cabins for overnight stay as shown on Figure 3, Appendix A. Five four-bedroom cabins and two eight-bedroom cabins are proposed in for a total of 36 bedrooms. Privately owned cabins would be developed as a future Conservation Subdivision. Domestic water supply for the cabins would be provided by an on-site well and wastewater treated through a cluster SSTS. The cabins would be accessible from the main clubhouse area via golf cart and walking paths, no cars would drive or park around the cabins. Emergency vehicle access would be available from CSAH 40 as shown on Figure 3, Appendix A.

It is anticipated that the Tepetonka Comfort Station would be located on the hill adjacent to Hole 10 as shown on Figure 3, Appendix A. The comfort station is for access to the golfers in the middle of their play when access to the clubhouse is not practical. This facility, with wall-unit air and heat, would be used during golf season only, containing two bathrooms accessible from the outside. Inside would be refrigerators, ice machine, running water, covered patio, grill (outside), countertops for food and beverage service. This building would be staffed during primary business hours with one or two individuals, depending on the day's play. Water may be provided from the well at the maintenance facility. A new SSTS would be installed.

Operations

The golf course would be open from May through October, weather dependent, with a maximum allowed number of 90 players per day. Membership to Tepetonka is private, with no public access to the golf course and facilities allowed. Each member would be given a certain number of playing days per year which would limit the use to allow for an unrushed golf experience. Traffic and guests to Tepetonka would be intentionally limited. While parking is planned for 60 cars; few days would exceed 40 cars.

It is anticipated that most golfers would walk the course; however, lightweight electric carts with lithium batteries would be available for use. During the golf season it is anticipated Tepetonka would employ approximately 40 total full-time equivalent (FTE) employees in grounds crew, food and beverage service, golf operations, and hospitality. It is anticipated that approximately 20 FTE employees per shift would be present at the golf course at one time. Approximately 1.5 meals per golfer would be served, plus 1.0 meals/staff member; equating to 155 meals per day.

Using industry averages, Tepetonka Club anticipates 160 room nights/year/room, including off-season utilization during November, December, March, and April. The clubhouse would provide minimal food and beverage service during the offseason (serving by reservation; no walk-in business). The clubhouse would not be open to the public.

Schedule

Infrastructure construction would be initiated in fall 2023 including site grading, SSTS installation, foundation construction, and irrigation well installation. Selective tree clearing would likely be initiated in

late fall/winter 2023. The hallmark of the landscape is the numerous cedar trees concentrated on the eastern and northern portions the site, mixed with native grasses, wildflowers, and pollinator habitat outside of the active golf course. The proposed Project has been designed to minimize disturbance to the extent possible.

Course construction would commence in fall 2023 or spring 2024. Construction of the golf course is planned for completion in fall of 2024, with grow-in through spring of 2025. The course is planned to open as early as summer 2025.

Tepetonka Club intends to use the existing house and pole barn that came with the acquisition of the 15-acre parcel east of Shakopee Creek (property associated with Parcel ID 23-013-0030; 1155 Co Rd 40 NE). The existing house would be relocated to the northeast corner of the site and would be used as staff housing. The house would also serve as a temporary clubhouse and provide an office space for the design and construction teams.

While the golf course is under construction throughout 2024, the clubhouse and lodge would be built just north of the present location of the pole barn. It is anticipated that the 24 lodge rooms would be completed by summer 2025. Privately-owned cabins proposed north of Shakopee Creek would also likely begin construction in 2025, as demand to purchase these units dictate.

c. Project magnitude

Table 1. Project Magnitude

Description	Area Footprint
Total project acreage	227.8
Linear project length (feet)	1,438
Roadways	7,396
Cart paths	9,812
Maintenance paths	
Number and type of residential units	Not applicable (N/A)
Lodge	24 rooms
Cabins (seven privately owned)	36 rooms (Five four-bedroom cabins, two eight-bedroom cabins)
Residential building area (in square feet)	N/A
Lodge	13,000
Cabins	13,300
Commercial building area (in square feet)	
Clubhouse	8,410
Landing/Cart Staging	1,800
Comfort Station	500
Hoggies Hang	3,984
Office/staff housing (Parcel ID 23-013-0030; 1155 Co Rd 40 NE)	3,011
Industrial building area (in square feet)	N/A
Institutional building area (in square feet)	N/A
Other uses – specify (in square feet)	N/A

Description	Area Footprint
Structure heights	
Clubhouse	Two story, 35 feet
Landing/Cart Staging	One story, 28 feet
Comfort Station	One story, 20 feet
Hoggies Hang	One story, 20 feet
Lodge Building	Two story, 35 feet
Cabins	Two story, 35 feet

- d. ***Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.***

The proposed Project presents a unique opportunity to produce a high quality and competitive golf course which would bring economic development and growth to the area. The gently rolling hills and existing water features allow for an aesthetically pleasing area which is highly suitable for a golf course. The surrounding area is known for being an outdoor recreational hotspot and the golf course would contribute to the appeal of the area. The course would allow the patrons from the local area and outside of the region to enjoy and appreciate the scenic views of the area, while enjoying time with friends and colleagues and providing exercise.

- e. ***Are future stages of this development including development on any other property planned or likely to happen?*** ☐ Yes ☒ No

If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

- f. ***Is this project a subsequent stage of an earlier project?*** ☐ Yes ☒ No

If yes, briefly describe the past development, timeline and any past environmental review.

7. Climate Adaptation and Resilience

- a. ***Describe the climate trends in the general location of the project (see guidance: Climate Adaptation and Resilience) and how climate change is anticipated to affect that location during the life of the project.***

In general, Minnesota is anticipated to experience an increase in temperature, precipitation, and more frequent extreme precipitation events resulting from climate change. In Minnesota, annual average temperatures have risen two degrees over the past century and up to three degrees in the northern part of the state. The highest average temperature increases have occurred during the winter. Since 1895, temperatures during the winter have increased at a rate two to three times greater than during the summer. In particular, winter warming rates have risen more sharply in recent decades.¹⁰ Current climate warming trends, most notably during the winter, are anticipated to continue.¹¹

Heavy rain events have become more frequent in Minnesota and more intense. From 1973 to 2021, Minnesota experienced 16 mega-rain events¹² with a notable increase since 2000. Of these 16 events, three occurred in the 1970s, one in the 1980s, one in the 1990s, six mega-rain events occurred in the 2000s, four

¹⁰ MDNR. Climate Trends. https://www.dnr.state.mn.us/climate/climate_change_info/climate-trends.html

¹¹ MnDOT. Minnesota Go Climate Change Report. 2021. <https://www.minnesotago.org/trends/climate-change>

¹² Mega-rain events are defined as events in which six inches of rain covers more than 1,000 square miles and the core of the event tops eight inches.

in the 2010s, and one in 2020. Thus, in the past 21 years (2000 to 2020), almost two times as many mega rain events occurred compared to the prior 27 years (1973 to 1999).¹³

Climate trends for Kandiyohi County parallel the overall statewide trends, indicating Minnesota's climate is becoming warmer and wetter. Exhibits 1 and 2 illustrate historical average annual temperature and precipitation trends from 1895 to 2023. During this time period, the County experienced an average annual temperature increase of 0.24 degrees Fahrenheit (°F) per decade and annual precipitation increase of 0.54 inches per decade.

Exhibit 1. Historical Annual Average Temperature in Kandiyohi County (1895 – 2023)¹⁴

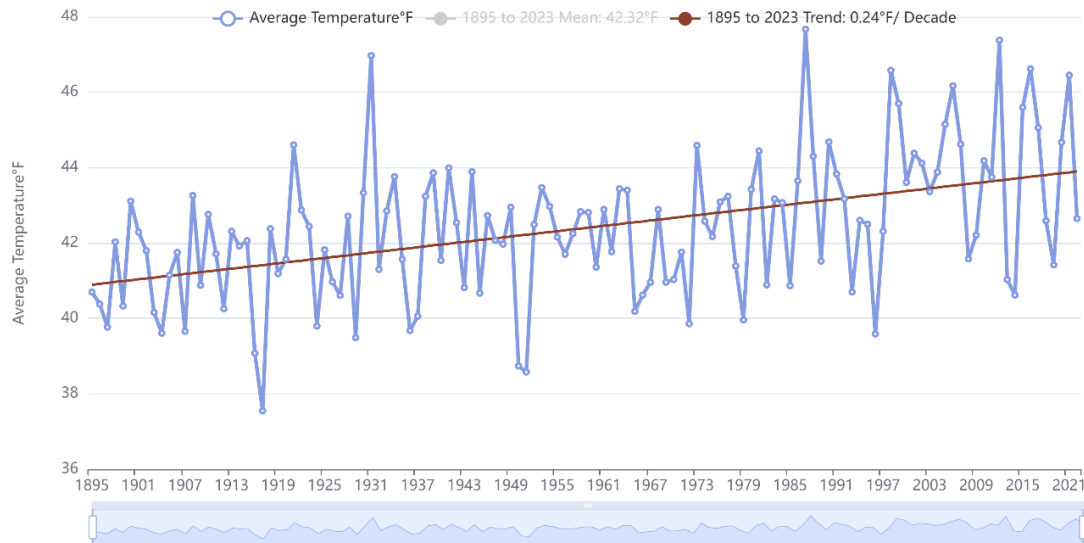
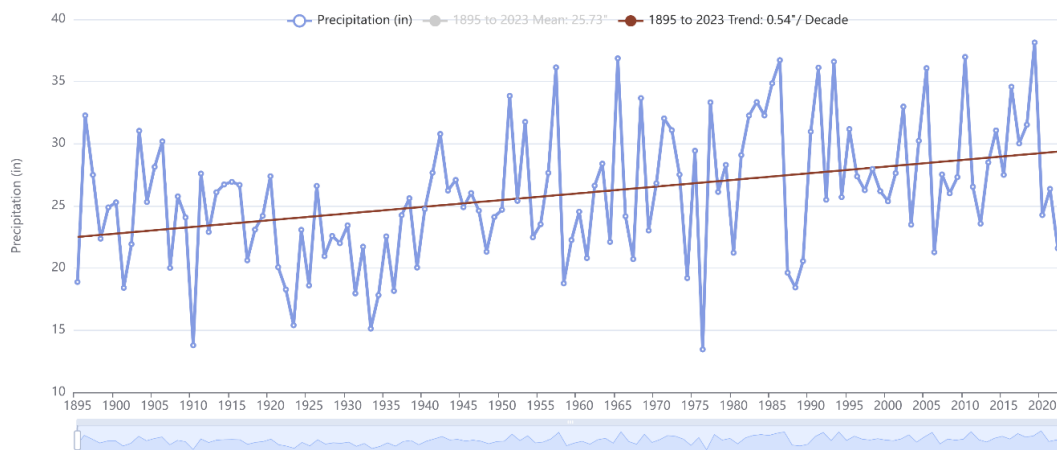


Exhibit 2. Historical Annual Average Precipitation in Kandiyohi County (1895 – 2023)¹⁵



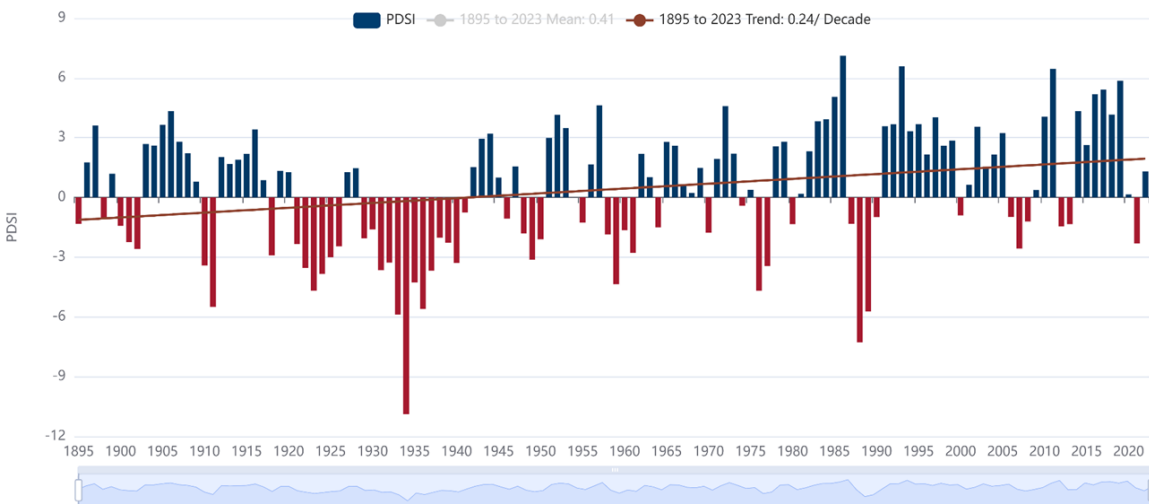
¹³ Minnesota Department of Natural Resources. Historic Mega-Rain Events in Minnesota. https://www.dnr.state.mn.us/climate/summaries_and_publications/mega_rain_events.html

¹⁴ Source: Minnesota Department of Natural Resources. <https://arcgis.dnr.state.mn.us/ewr/climateexplorer/main/historical>

¹⁵ Source: Minnesota Department of Natural Resources. <https://arcgis.dnr.state.mn.us/ewr/climateexplorer/main/historical>

The Palmer Drought Severity Index (PDSI) utilizes temperature and precipitation data to estimate relative soil moisture conditions and serve as an indicator of long-term drought conditions. The index ranges from -5 to +5 indicating dry and wet conditions, respectively. PDSI values are reported on a monthly basis. Exhibit 3 shows historic PDSI values for the month of August from 1895 to 2023 for Kandiyohi County, which indicates an increase of 0.24 per decade. Generally, the PDSI historical data indicates that the region is experiencing a wetter climate.

Exhibit 3. Historical PDSI Values for Kandiyohi County (1895 – 2023)¹⁶



Projected climate trends indicate that temperatures within the County will continue to increase. Exhibit 4 illustrates projected temperatures for the County. Several climate models are shown in the projected temperature analysis. The model mean, shown in blue, illustrates the average of all models included in the analysis. Exhibit 4 shows the modeled present condition, mid-century (2040-2059) at Representative Concentration Pathway (RCP) 4.5, late-century (2080-2099) at RCP 4.5, and late-century (2080-2099) at RCP 8.5. RCP is a greenhouse gas concentration scenario used by the Intergovernmental Panel on Climate Change in the fifth assessment report. RCP 4.5 is an intermediate scenario in which emissions decline after peaking around 2040 and RCP 8.5 represents a worst-case scenario in which emissions continue rising through the 21st century.

Under the RCP 4.5 scenario, the annual temperature is anticipated to increase within the County from a modeled present mean of 44.09°F (1980-1999) to a mid-century (2040-2059) model mean of 47.58°F and a late-century (2080-2099) model mean of 50.01°F. Under the RCP 8.5 worst-case scenario, the County would experience a late-century (2080-2099) model mean temperature of 53.94°F.

¹⁶ Source: Minnesota Department of Natural Resources. <https://arcgis.dnr.state.mn.us/ewr/climateexplorer/main/historical>

Exhibit 4. Projected Temperatures in Kandiyohi County¹⁷

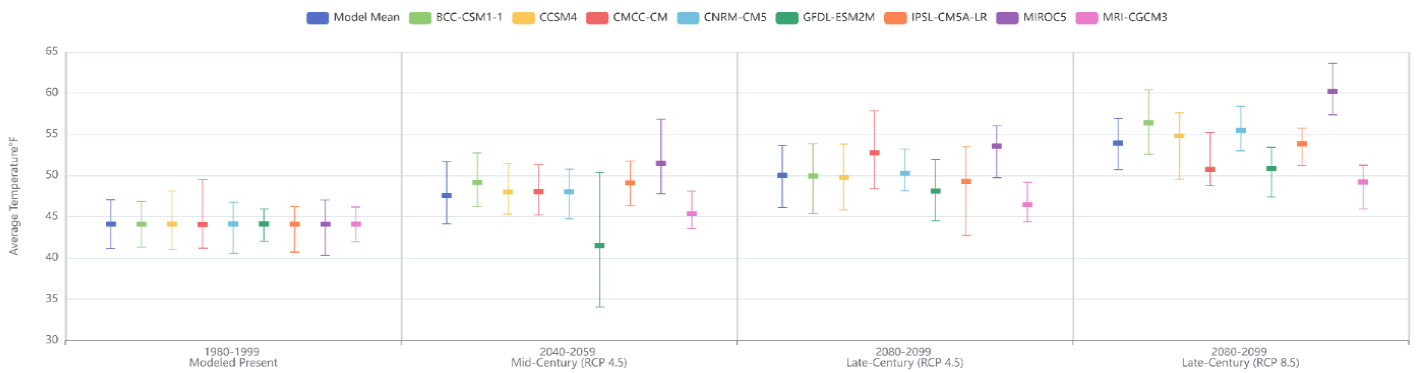
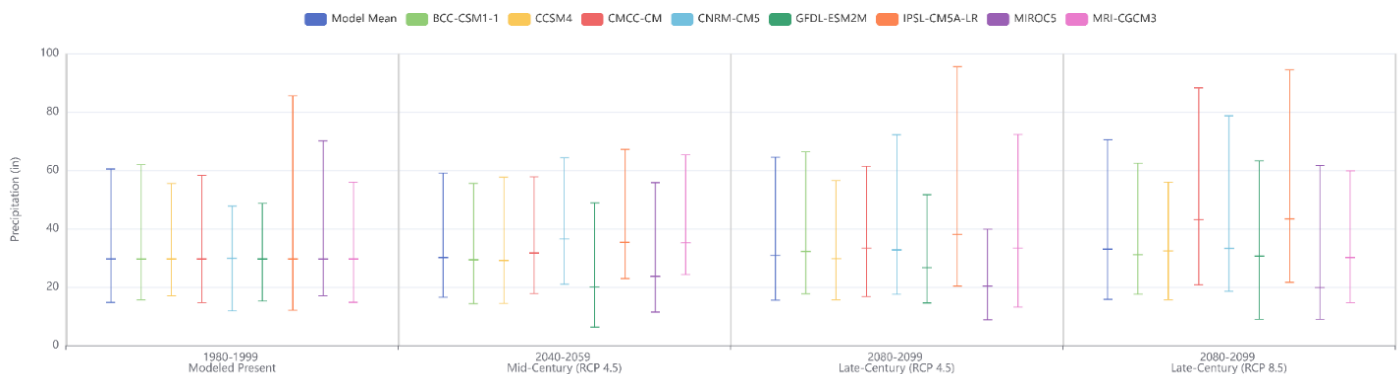


Exhibit 5 presents projected average annual precipitation for Kandiyohi County. Under the RCP 4.5 scenario, the annual precipitation is anticipated to increase within the County from a modeled present mean of 29.62 inches (1980-1999) to a mid-century (2040-2059) model mean of 30.09 inches and a late-century (2080-2099) model mean of 30.78 inches. Under the RCP 8.5 worst-case scenario, the County would experience a late-century (2080-2099) model mean precipitation of 32.95 inches. In comparison to the modeled present mean (1980-1999), the late century (2080-2099) modeled mean annual precipitation would increase by approximately 1.2 percent under the RCP 4.5 scenario and increase by approximately 3.3 percent under the RCP 8.5 scenario. Exhibit 4 illustrates projected precipitation for the County.

Exhibit 5. Projected Precipitation in Kandiyohi County¹⁸



- b. For each Resource Category in the table below: Describe how the project's proposed activities and how the project's design will interact with those climate trends. Describe proposed adaptations to address the project effects identified.**

Table 2 summarizes climate considerations related to the Project and adaptation considerations.

¹⁷ Source: Minnesota Department of Natural Resources. [Minnesota Climate Explorer \(state.mn.us\)](https://climateexplorer.state.mn.us). Definitions of the models included in this analysis can be found at [Climate Explorer Metadata | Minnesota DNR \(state.mn.us\)](https://climateexplorer.state.mn.us).

¹⁸ Source: Minnesota Department of Natural Resources. [Minnesota Climate Explorer \(state.mn.us\)](https://climateexplorer.state.mn.us). Definitions of the models included in this analysis can be found at [Climate Explorer Metadata | Minnesota DNR \(state.mn.us\)](https://climateexplorer.state.mn.us).

Table 2. Climate Considerations and Adaptations

Resource Category	Climate Considerations	Project Information	Adaptations
Project Design	Project climate trends include increasing temperatures, precipitation, and frequency of heavy rainfall events.	The proposed facilities and parking area would increase impervious areas and associated volume of stormwater runoff. The site is not within a regulated floodplain or floodway.	The proposed Project includes restoration of native prairie outside of active play areas adjacent to fairways, rough, greens, and tee boxes. Several BMPs are proposed to minimize irrigation needs, such as selecting turf species that require less water and reusing water collected in the proposed pond for irrigation.
Land Use	Heavier rainfall expected to increase risk of localized flooding. Increased temperatures may create public health concerns primarily for vulnerable communities such as children and elderly.	The current land use within the site consists of former agricultural land, a farmstead, wooded area, and wetlands.	Proposed facilities have been designed to avoid and minimize impacts to wetlands to the extent possible and provide buffer from Shakopee Creek. The proposed Project includes restoration of portions of Shakopee Creek which are currently severely degraded. Tree removal will be minimized to the extent possible. The proposed Project has been designed to preserve and enhance the natural setting of the site.
Water Resources	Address in item 12		
Contamination/ Hazardous Materials/ Wastes	Protection of groundwater and soil from contamination. Climate trends indicate that Minnesota will experience an increase in precipitation and frequency of heavy rainfall events that may result in an increased risk of localized flooding.	The proposed Project includes installation of a permanent fuel storage tank at the maintenance facility. Tank registration would be required with the MPCA over 500 gallons. .	As discussed in item 7.a, the site is not located within a 100-year floodplain and is located in an area with minimal flood risk. The proposed fuel storage tank would be appropriately located in an area of minimal flood risk. The tank would comply with all design and maintenance requirements per MPCA and local regulations.

Resource Category	Climate Considerations	Project Information	Adaptations
Fish, wildlife, plant communities, and sensitive ecological resources (rare features)	Address in item 14.		

8. Cover Types

Table 3 summarizes the existing and proposed cover types. Figure 4 in Appendix A illustrates the existing land cover for the site.¹⁹

Table 3. Cover Types

Cover Types	Before(acres)	After (acres)
Wetlands	18.9	16.7*
Deep Water/Streams	3.4	3.4
Wooded/Forest	58.5	38.5
Brush/Grassland	134.9	76.0
Cropland	0	0
Lawn/Landscaping	9.6	80.5
Impervious Surface	0.9	8.3
Created Ponds/Aquatic Resources	1.6	3.6**
Stormwater Pond	0	0.8***
Green Infrastructure	0	0
Other (describe)	0	0
TOTAL	227.8	227.8

*Lowest possible number as no on-site wetland mitigation is assumed, which would be determined during the Wetland Replacement Plan application. Acreage based on estimated impacts to regulated wetland resources.

**Includes existing constructed pond features and proposed irrigation pond.

***Proposed stormwater pond and potential infiltration systems. BMPs to be confirmed during final design.

Table 4. Green Infrastructure

Green Infrastructure	Before (acreage)	After (acreage)
Constructed infiltration systems (infiltration basins/infiltration trenches/ rainwater gardens/bioretention areas without underdrains/swales with impermeable check dams)	0	0*
Constructed tree trenches and tree boxes	N/A	N/A

¹⁹ Figure 4 in Appendix A is based on the DNR's Minnesota Land Cover Classification System (MLCCS) geospatial data. Data presented in Table 2 has been refined to more accurately reflect the actual land cover conditions are the site.

Green Infrastructure	Before (acreage)	After (acreage)
Constructed wetlands	N/A	N/A
Constructed green roofs	N/A	N/A
Constructed permeable pavements	N/A	N/A
Other (describe) Landfill-based geothermal system	N/A	N/A
TOTAL		

* Infiltration systems are not currently proposed but may be considered. BMPs to be confirmed during final design.

Table 5. Tree Canopy

Trees	Percent	Number
Percent tree canopy removed or number of mature trees removed during development	Approx. 34%*	20 acres*
Number of new trees planted	To be determined**	To be determined**

*Approximately 20 acres of trees may be removed during construction primarily consisting of eastern red cedar trees. This estimate is conservative and is not exclusive to mature trees. Tree removal will be minimized to the extent possible, with particular attention to avoiding tree removal in the Bluff Impact Zone (refer to Item 10.a.iii. RM Shoreland Resource Management District.

**Landscaping improvements are anticipated to include new trees but the number of trees is unknown at this time.

9. Permits and Approvals

List all known local, state and federal permits, approvals, certifications and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure. All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minnesota Rules, Chapter 4410.3100.

Table 6 identifies permits and approvals anticipated to be required for the proposed Project.

Table 6. Permits and Approvals

Unit of Government	Type of Application	Status
Federal		
U.S. Army Corps of Engineers	Section 404 Permit	To be completed
U.S. Fish and Wildlife Service	Section 7 ESA Consultation	To be completed, if required
State		
Minnesota Department of Natural Resources (DNR)	Water Appropriation Permit	To be completed
DNR	Public Waters Work Permit	To be completed, if required
Minnesota Pollution Control Agency (MPCA)	Construction Stormwater Permit	To be completed

Unit of Government	Type of Application	Status
MPCA	Section 401 Certification	To be completed
County		
Kandiyohi County	EIS Need Decision	To be completed
Kandiyohi County	Conditional Use Permits	To be completed
Kandiyohi County	Building Permit	To be completed
Kandiyohi County	Driveway Access Permit	To be completed
Kandiyohi County	SSTS Permit	To be completed
Kandiyohi County	Shoreland Alternation Permit	To be completed, if required

Cumulative potential effects may be considered and addressed in response to individual EAW Item Nos. 9-18, or the RGU can address all cumulative potential effects in response to EAW Item No. 19. If addressing cumulative effect under individual items, make sure to include information requested in EAW Item No. 19

10. Land Use

a. Describe:

- i. ***Existing land use of the site as well as areas adjacent to and near the site, including parks, trails, prime or unique farmlands.***

Existing Land Use

The existing site is vacant land that is used for private recreation and hunting purposes. Fencing is present around portions of the site, indicating that the land may have previously been used for livestock grazing. No cattle grazing or other agricultural activities have recently occurred within the site. An approximately 15.3-acre farmstead is present on the north side of the site which includes a house and barn with some pastureland that likely contained a horse(s). Two other farm buildings are present in the northwest corner of the site.

Surrounding land uses primarily consist of agricultural fields and open grasslands. The site is bordered on the north by CSAH 40 (180th Avenue NW). Land use north of CSAH 40 is comprised of grassland and wetland areas. Shakopee Creek transverses the site and extends northwest, intersecting CSAH 40. 3rd Street NE borders the western boundary of the site, which is a gravel roadway that terminates approximately 1.3 miles south of CSAH 40. A few farm buildings are present west of 3rd Street NE.

Parks and Trails

To the north is Lake Andrew, a 759-acre lake, which is also the headwaters of the Shakopee Creek. Sibley State Park is adjacent to Lake Andrew and encompasses approximately 2,500 acres. Sibley State Park is popular in this area of Minnesota with several hiking and biking trails, lake shores and beaches, and wildlife viewing. Rural residential properties that utilized for hunting/recreational

purposes are located south of the site. The proposed Project would be consistent with the recreational land uses in the surrounding area.

A U.S. Fish and Wildlife Service (USFWS) Wetland Easement is adjacent to the site. Land that is included in Minnesota Board of Water and Soil Resources (BWSR) conservation easements are also present in the vicinity of the site. Figure 5, Appendix A identifies parks, trails, and other protected areas in the vicinity of the site.

Prime or Unique Farmlands

Approximately 132 acres of the site includes soils classified as prime farmland or farmland of statewide importance based on the USDA Natural Resource Conservation Service (NRCS) Web Soil Survey data. As previously discussed, agricultural activities have not occurred within the site for several years. Currently, the site is used for private hunting and recreational purposes. Figure 6, Appendix A shows the NRCS farmland classifications.

- ii. ***Plans. Describe planned land use as identified in comprehensive plan (if available) and any other applicable plan for land use, water, or resources management by a local, regional, state, or federal agency.***

Kandiyohi Comprehensive Plan

The Kandiyohi County Comprehensive Plan²⁰ does not currently designate a planned use for the site. Instead, it states that “*the County Planning Commission will need to evaluate each future land use opportunity on a one-by-one basis....because opportunities and circumstances change from day-to-day, and what is considered to be the best decision for Kandiyohi County today may not be the same belief in the future.*”

The County’s Comprehensive Plan identified a 20-year urban growth area, which identifies where potential urban growth might occur and to guide coordination priorities between cities and townships. The Comprehensive Plan does not designate future land uses.

- iii. ***Zoning, including special districts or overlays such as shoreland, floodplain, wild and scenic rivers, critical area, agricultural preserves, etc.***

The majority of the site is within the General Agriculture (A-2) Zoning District except for the portion of the site that includes the Shakopee Creek which is within the RM Shoreland Resource Management District. Descriptions of these Zoning Districts are provided in the following paragraphs. Figure 7, Appendix A identifies the Zoning Districts present within the site.

The proposed Project consists of three uses including outdoor commercial recreation, hospitality or event center, and conservation subdivisions. Each of these proposed uses would be reviewed through three separate conditional use permitting approval processes. The applicable zoning district regulations that pertain to the site and proposed uses are described in the following paragraphs.

General Agriculture (A-2) Zoning District

The purpose of the A-2 Zoning District is to retain property for general farming activities and

²⁰ Kandiyohi County Comprehensive Plan. Chapter 8, Page 1. Adopted November 20, 2002. Accessed August 2022.
https://cms3.revize.com/revize/kandiyohimn/docs/EnvSvc/PlanZoneForms/00_Kandiyohi_County_Comprehensive_Plan.pdf

regulate the encroachment on agricultural land by non-farmland uses, protect and preserve natural areas and retain major areas of natural ground cover for conservation purposes, and to stabilize increases in public expenditures. Pursuant to Chapter 7-3 of the County's Zoning Ordinance²¹, outdoor commercial recreation uses, including golf courses, are allowable in the A-2 Zoning District subject to the issuance of a Conditional Use Permit.

RM Shoreland Resource Management District

The purpose of the RM Shoreland Resource Management District is to recognize the need for proper management of shoreland areas that are not conducive to high density residential development. The district is intended to limit the impacts of high-density residential development while allowing for low density residential development and general agricultural, recreational, and resource management uses. The RM Shoreland Resource Management District includes land within 300 feet of Shakopee Creek. Pursuant to Chapter 11-3 of the County's Zoning Ordinance²², golf courses, including a clubhouse and driving range, may be allowed in the RM Shoreland Resource Management District through the issuance of a Conditional Use Permit.

A bluff is present along portions of the Shakopee Creek Corridor. The area 20 feet from the top of the bluff is defined as the Bluff Impact Zone. Per Chapter 12-1-7 of the County's Zoning Ordinance, intensive vegetation removal is prohibited within the shore and bluff impact zone, and on steep slopes. A Shoreland Alternation Permit is required if any of the criteria listed in Chapter 12-1-9 of the County's Zoning Ordinance are met, including the movement of more than five cubic yards of material on steep slopes or within the shore and/or bluff impact zones. Item 11.a.i provides additional details regarding the Shakopee Creek Corridor. To minimize bluff impacts, cart paths proposed within the Bluff Impact Zone would be constructed as a wooden elevated path to avoid excavation and minimize disturbance to the extent possible. The golf course has been designed to avoid siting active play areas of the golf course within the bluff. Select portions of areas within the bluff impact zone 20-foot buffer area would be converted from cedar trees and brome dominated grassland to vegetated turf areas. Erosion and sediment control measures would be implemented during construction within the bluff impact zone to avoid impacts to the bluff. Appendix B includes a preliminary site plan illustrating the preliminary project layout, bluff edge, and the bluff impact zone boundary where it approaches the course.

Privately-owned cabins would be constructed as a conservation subdivision, which is characterized by common open space and clustered compact lots to conserve open space and incorporate low impact development practices. Pursuant to Chapter 34 of the County's Zoning Ordinance, conservation subdivisions are allowed in the A-2 and RM Shoreland Resource Management Districts through a conditional use permit.

- iv. *If any critical facilities (i.e., facilities necessary for public health and safety, those storing hazardous materials, or those with housing occupants who may be insufficiently mobile) are proposed in floodplain areas and other areas identified as at risk for localized flooding, describe the risk potential considering changing precipitation and event intensity.***

Not applicable. No critical facilities are present within the floodplain area or other areas at risk for localized flooding.

²¹ Kandiyohi County Zoning Ordinance No. 9A. April 24, 2018. Chapter 7-3. Accessed August 2022. https://cms3.revize.com/revize/kandiyohimn/docs/Admin/Ordinances/9A_ZoningOrdinance4-24-18.pdf

²² Kandiyohi County Zoning Ordinance No. 9A. April 24, 2018. Chapter 11-3. Accessed August 2022. https://cms3.revize.com/revize/kandiyohimn/docs/Admin/Ordinances/9A_ZoningOrdinance4-24-18.pdf

- b. Discuss the project's compatibility with nearby land uses, zoning, and plans listed in Item 9a above, concentrating on implications for environmental effects.**

The proposed Project is compatible with nearby land uses. Most land directly adjacent to the site is currently used for hunting/recreational purposes. Hunting seasons would overlap with the active golf season periodically during the year. Hunting and recreational activities occurring on adjacent properties would be compatible with the recreational activities proposed as part of the Project. The proposed Project would complement the surrounding area as the Sibley State Park/New London Spicer area is known as an outdoor recreation hotspot in the summer. With a golf course generally being a quieter use of land, this would reduce potential issues with neighbors regarding noise. After initial grading and construction, the majority of the disturbed land would be converted to golf course fescue and prairie grass.

- c. Identify measures incorporated into the proposed project to mitigate any potential incompatibility as discussed in Item 9b above.**

Not applicable.

11. Geology, Soils and Topography/Land Forms

- a. Geology - Describe the geology underlying the project area and identify and map any susceptible geologic features such as sinkholes, shallow limestone formations, unconfined/shallow aquifers, or karst conditions. Discuss any limitations of these features for the project and any effects the project could have on these features. Identify any project designs or mitigation measures to address effects to geologic features.**

The surficial and bedrock geology for Kandiyohi County has been mapped in the Minnesota Geological Survey's Geologic Atlas of Kandiyohi County²³. Surficial deposits within the site are comprised of glacial till, outwash, river alluvium, and lake sediments typically varying from 150 to 650 feet in thickness cover the bedrock across the entire County. The bedrock consists chiefly of Precambrian metamorphic and intrusive crystalline rocks. The unconsolidated sediments near the site are anticipated to be approximately 400 to 500 feet in thickness. The majority of wells within the County do not intersect bedrock because adequate water supplies are typically encountered within the overlying sediments. Subsurface sediments are generally anticipated to consist primarily of glacial till (sandy loam to loam) with layers of glaciofluvial sediments (sands and gravels). The glaciofluvial sediments, where encountered, are expected to be the primary aquifers in the vicinity of the site.

No known karst or sinkhole features are present within the site. The conditions for the formation of karst features (sinkholes, bedrock caves, disappearing streams) are not present at the site. Karst features are more common when carbonate bedrock units are found within 50 feet of the land surface, with the water table present within the bedrock unit. Carbonate bedrock is not present at the site and bedrock is too deep (over 400 feet) for typical sinkhole formation. Sinkhole potential at the site is considered very low.

- b. Soils and topography - Describe the soils on the site, giving NRCS (SCS) classifications and descriptions, including limitations of soils. Describe topography, any special site conditions relating to erosion potential, soil stability or other soils limitations, such as steep slopes, highly permeable soils. Provide estimated volume and acreage of soil excavation and/or grading. Discuss impacts from project activities (distinguish between construction and operational activities) related to soils and topography.**

²³ Hamilton, Jacqueline D; Bauer, Emily J; Chandler, V.W.; Steenberg, Julia R; Staley, Amie E. (2019). C-46, Geologic Atlas of Kandiyohi County, Minnesota. Minnesota Geological Survey. Retrieved from the University of Minnesota Digital Conservancy, <https://hdl.handle.net/11299/202737>.

Identify measures during and after project construction to address soil limitations including stabilization, soil corrections or other measures. Erosion/sedimentation control related to stormwater runoff should be addressed in response to Item 11.b.ii.

According to the USDA NRCS Web Soil Survey, the site is comprised of ten soil types, mostly loams with some silty clay loams and sandy clay loams. The suitability of these soils for lawns, landscaping, and golf fairways ranges from somewhat limited to very limited due to soil properties that affect plant growth and trafficability after vegetation is established. Soil map units with a higher wetland component ranked as very limited, while areas with a predominance of uplands ranked as somewhat limited. Limitations due to depth to saturation and ponding can be associated with wetlands, which are addressed under Items 11.a.i and 11.b.iv of this EAW. Soils in the site are generally considered moderately susceptible to the sheet and rill erosion by water, as indicated by K factors that range between 0.24 and 0.28, as well as existing slopes. Table 7 summarizes the NRCS soil types within the site. Figure 6, Appendix A identifies soils classifications within and in the vicinity of the site.

Table 7. NRCS Soil Classifications within the Site

Symbol	Soil Map Unit	% of Area	% Hydric	Hydric Category	Farmland Classification
L315C2	Sunburg-Wadenill-Hawick complex, 6 to 12 percent slopes, moderately eroded	9.1	10	Predominantly Non-Hydric	Farmland of statewide importance
L315D2	Sunburg-Wadenill-Hawick complex, 12 to 18 percent slopes, moderately eroded	12.7	0	Non-Hydric	Not prime farmland
L315E	Sunburg-Wadenill-Hawick complex, 18 to 35 percent slopes	10.4	10	Predominantly Non-Hydric	Not prime farmland
L318A	Lundlake silty clay loam, 0 to 1 percent slopes	3.7	100	Hydric	Prime farmland if drained
L330A	Muskego, Blue Earth and Houghton soils, lundlake catena, 0 to 1 percent slopes, ponded	0.2	100	Hydric	Not prime farmland
L336A	Arctander, overwash-Arctander complex, 1 to 4 percent slopes	10.9	48	Predominantly Non-Hydric	Prime farmland if drained
L337B	Wadenill-Sunburg complex, 2 to 6 percent slopes	8.7	5	Predominantly Non-Hydric	Prime farmland
L340B	Wadenill-Sunburg-Hawick complex, 2 to 6 percent slopes	1.3	5	Predominantly Non-Hydric	Farmland of statewide importance
L356C2	Sunburg-Wadenill complex, 6 to 12 percent slopes, moderately eroded	40.6	5	Predominantly Non-Hydric	Farmland of statewide importance
L356D2	Sunburg-Wadenill complex, 12 to 18 percent slopes, moderately eroded	2.4	0	Non-Hydric	Not prime farmland

The site has 92 feet of topographic relief. Elevations vary from a high of 1,244 feet in the northeast part of the site to a low of 1,152 feet in the south, where Shakopee Creek exits the site. NRCS Web Soil Survey data indicates slopes of greater than 25 percent do exist. A review of two-foot contour mapping shows rolling topography with steeper slopes along Shakopee Creek at the north end. A floodplain wetland

exists at the southern end along Shakopee Creek (Figure 8. Appendix A). Shakopee Creek flows south to Florida Slough Lake.

Grading necessary for construction is anticipated to involve movement of approximately 80,000 cubic yards of soil to shape golf course features, cart paths, building pads, parking areas, and wetland enhancements. Grading would disturb approximately 81 acres of the site. Grading is expected to avoid disturbance of approximately 15.7 acres of wetlands, 76 acres of brush/grassland, and 38.5 acres of wooded areas.

Development of the site would disturb more than one acre of land and; therefore, would require application for coverage under the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) General Construction Permit administered by the Minnesota Pollution Control Agency (MPCA) prior to initiation of earthwork. In compliance with the General NPDES Permit for construction activities, the Proposer and construction contractor would be required to implement BMPs to reduce erosion and sedimentation and stabilize exposed soils after construction. Erosion and sedimentation control BMPs related to stormwater runoff are discussed in greater detail under Item 11.b.ii.

NOTE: For silica sand projects, the EAW must include a hydrogeologic investigation assessing the potential groundwater and surface water effects and geologic conditions that could create an increased risk of potentially significant effects on groundwater and surface water. Descriptions of water resources and potential effects from the project in EAW Item 11 must be consistent with the geology, soils and topography/land forms and potential effects described in EAW Item 10.

12. Water Resources

a. Describe surface water and groundwater features on or near the site in a.i. and a.ii. below.

- i. Surface water - lakes, streams, wetlands, intermittent channels, and county/judicial ditches. Include any special designations such as public waters, trout stream/lake, wildlife lakes, migratory waterfowl feeding/resting lake, and outstanding resource value water. Include water quality impairments or special designations listed on the current MPCA 303d Impaired Waters List that are within 1 mile of the project. Include DNR Public Waters Inventory number(s), if any.**

Surface Waters

A review of Minnesota Department of Natural Resources (DNR) geospatial data determined that no trout streams or trout lakes²⁴, migratory waterfowl feeding/resting lakes²⁵, or outstanding resource value waters²⁶ are present within the site. One wildlife lake²⁷, Middle Lake, is located approximately 1.5 miles northwest of the site. Figure 8, Appendix A shows water resources in the vicinity of the site.

²⁴ DNR. 2020. State Designated Trout Streams, Minnesota. Available at: <https://gisdata.mn.gov/dataset/env-trout-stream-designations>. Accessed August 2022.

²⁵ DNR. 2016. Migratory Waterfowl Feeding and Resting Areas. Available at: <https://gisdata.mn.gov/dataset/env-migratory-waterfowl-areas>. Accessed August 2022.

²⁶ DNR. 2020. Lakes of Biological Significance. Available at: <https://gisdata.mn.gov/dataset/env-lakes-of-biological-signific>. Accessed August 2022.

²⁷ DNR. 2016. Designated Wildlife Lakes. Available at: <https://gisdata.mn.gov/dataset/env-designated-wildlife-lakes>. Accessed August 2022.

Shakopee Creek

Shakopee Creek flows from the outlet of Lake Andrew for 9,200 feet to the upstream end of the site at the CSAH 40 crossing. Shakopee Creek continues for approximately 5,200 feet through the site before flowing into an approximate 80-acre unnamed shallow lake downstream of the site. At the downstream point of the site, Shakopee Creek has a watershed area of approximately 49.2 square miles. It is considered a warmwater stream. Figure 8, Appendix A identifies the location of Shakopee Creek within the site.

In 2003, the MPCA conducted a biological assessment of Shakopee Creek that included the site. Both the fish community and macroinvertebrate community were rated as Fair according to the Fish Index of Biological Integrity and Macroinvertebrate Index of Biological Integrity, respectively. The fish community consisted of primarily sunfish species including hybrid sunfish, bluegill, and green sunfish. A total of nine fish species were collected. Seventeen macroinvertebrate taxa were collected and identified in 2003 ranging from various families of caddisflies to more pollution-tolerant taxa such as black flies and midges.

Shakopee Creek through the site can be broken into three relatively distinct reaches based on valley, riparian, and stream conditions. From the CSAH 40 crossing downstream for approximately 2,700 feet, Shakopee Creek has a relatively narrow stream valley with steep slopes bounding each side of the stream. The riparian corridor consists of floodplain benches dominated by herbaceous vegetation and scattered willow stands. Shakopee Creek through this portion of the site has a sinuosity of approximately 1.3 with well-defined meander bends and riffle/pool sequences. Through this reach many of the outside banks on the meanders are severely eroding and can be classified as having a Bank Erosion Hazard Index (BEHI) of High to Very High. Additionally, throughout this reach, pool water surface slopes are as steep or steeper than riffle water surface slopes indicating potentially both lateral and vertical instability. Most outside meander bank heights can be considered relatively high with heights ranging from 7 to 16 feet. Eroding outside meander banks are contributing 1.8 to 89 tons of sediment annually to Shakopee Creek and downstream waters.²⁸
²⁹ The Banks Assessment for Non-Point Source Consequences of Sediment (BANCS) Model was utilized to determine Sediment Yield. The model uses empirical based streambank erosion prediction analysis (including qualitative and quantitative data). The BANCS Model uses a combination of BEHI (Bank Erosion Hazard Index) and NBS (Near Bank Stress) assessments to predict sediment erosion rates/linear foot to provide quantification for the length of the eroded bank.

The second reach of Shakopee Creek starts approximately 2,700 feet downstream of the CSAH 40 crossing and continues for approximately 1,500 feet. The stream valley in the second reach is fairly narrow. The right downstream bank's riparian corridor and valley consists of a steep bluff that is wooded and dominated by deciduous trees and eastern red cedar. The left downstream bank's riparian corridor and valley walls are less steep, but similarly vegetated with trees and shrubs. Invasive buckthorn species are the dominant understory shrub within the riparian corridor. Sinuosity of Shakopee Creek in the second reach is 1.3. Outside meander bends are less pronounced than in the upstream reach. Several meander bends are present along the right downstream bank that are eroding against the valley walls. The left downstream bank height is generally lower with heights ranging from two to four feet. In-stream coarse woody debris in the form of logs and log jams are common and provide stream habitat. For the most part, the second reach appears to be the most stable both laterally and vertically of all three reaches through the site. Although there are

²⁸ Rosgen, D.L. 1996, 2001a. Bank Assessment for Non-Point Source Consequences of Sediment (BANCS) model.

²⁹ Rosgen, D.L. 2001a. A Practical Method of Computing Streambank Erosion Rate.

eroding banks in some sections, there are also sections within this reach that are stable.

The third reach of Shakopee Creek starts approximately 4,200 feet downstream of the CSAH 40 crossing and continues for approximately 1,000 feet to the end of the site. The stream valley width increases to approximately 350 and 500 feet. The riparian corridor is broad, relatively flat, and consists of herbaceous dominated vegetation. Sinuosity of Shakopee Creek in the third reach is 1.1. Outside meander bends are present, but less developed than in the upper reaches. Water surface slope is less than the upper reaches and is relatively flat. Riffle/pool development in this reach is relatively poor. The stream appears to be incised and entrenched with flood flows having poor access to the floodplain. The third reach has characteristics of a stream that was at one point straightened or modified through historic land use practices. Based on a review of a historic aerial, any initial channel modification would have occurred prior to 1938. A preliminary observation from a field visit indicates the presence of abandoned meanders that would have been the stream centerline prior to modification. Eroding stream banks have BEHI classification of High or Very High and contribute between 2 and 11 tons of sediment annually. The third reach of Shakopee Creek could be considered the most altered portion throughout the site due to poor habitat quality and channel incision.

Lake Andrew

Lake Andrew is approximately one-half mile to the northeast of the site. Figure 8, Appendix A identifies the location of Lake Andrew.

DNR Public Waters

One DNR Public Water Watercourse and six DNR Public Waters are within one mile of the site. Table 8 lists DNR Public Waters and Public Watercourses within one mile. Figure 8, Appendix A identifies these DNR Public Waters.

Table 8. DNR Public Waters within One Mile of the Site

Name	Public Water ID	Type
Public Waters Within the Site		
Shakopee Creek	N/A	Public Water Watercourse
Public Waters Within a One Mile Radius of the Site		
Lake Andrew	34020600	Public Water
Unnamed	34020900	Public Water Wetland
Unnamed	34048100	Public Water Wetland
Unnamed	34047900	Public Water Wetland
Unnamed	34017300	Public Water Wetland
Unnamed Stream	34055900	Public Water Wetland

Wetland Resources

A Level 2 wetland delineation for the site was performed in October 2021 and June 2022. A total of 21 wetlands were delineated during the field review. Soil Survey and National Wetlands Inventory (NWI) maps were consulted during the wetland delineation.

A wetland delineation report dated June 7, 2022, was prepared and submitted to the Kandiyohi County Environmental Services, acting as the Wetland Conservation Act (WCA) Local Government Unit (LGU), and the U. S. Army Corps of Engineers (USACE). The submitted report included the Joint Application Form for Activities Affecting Water Resources in Minnesota. The application requested a wetland type confirmation, delineation concurrence, and approved jurisdictional determination (AJD). Kandiyohi County issued a Notice of Application on June 9, 2022. A revised wetland delineation was submitted to the regulators on June 27, 2022.

The Technical Evaluation Panel (TEP) consisting of staff from Kandiyohi County, the DNR, and BWSR reviewed the delineation on site on June 29, 2022, and concurred with the delineation as flagged in the field. A Notice of Decision (NOD) was approved for the wetland boundary and type application and issued by Kandiyohi County on August 2, 2022. USACE issued a AJD in March 2023. Appendix F provides the WCA NOD and USACE AJD.

Of the 21 wetlands delineated, seven wetlands are adjacent to Shakopee Creek and are anticipated to be regulated by the USACE as wetlands that are connected to waters of the U.S. The remainder appear to be isolated basins with no apparent hydrologic connection to other wetlands or waters. It is anticipated that any impacts to these wetlands would not be regulated under Clean Water Act Section 404 (Table 9). Any wetland impacts proposed would follow the approval and permitting requirements of the applicable regulatory law and agency. Figure 8, Appendix A illustrates the wetlands within the site.

Table 9. Wetlands within the Site

Wetland ID	Wetland Type	Dominant Vegetation	Soils	WCA Regulated	USACE Regulated
W1	2: Wet Meadow	Reed Canary Grass	Wadenill-Sunburg (L337B1)	Regulated	Isolated
W2	2: Wet Meadow 6: Shrub Swamp	Reed Canary Grass Willows	Sunburg-Wadenill (L356C2)	Regulated	Isolated
W3	2: Wet Meadow 6: Shrub Swamp	Reed Canary Grass Willows	Arctander (L336A)	Incidental (No-Loss)	Isolated
W4	1: Floodplain 2: Wet Meadow 3: Shallow Marsh 6: Shrub Swamp	Reed Canary Grass Willows, Sedges Cattail, Bulrushes Boxelder	Sunburg-Wadenill (L356C2)	Regulated	Connected to WOTUS
W4B	1: Floodplain 2: Wet Meadow 3: Shallow Marsh 6: Shrub Swamp	Reed Canary Grass Willows, Sedges Cattail, Bulrushes Boxelder	Sunburg-Wadenill (L356C2)	Regulated	Connected to WOTUS
W6	2: Wet Meadow 3: Shallow Marsh	Reed Canary Grass Sedges, Bulrushes	Sunburg-Wadenill (L356C2)	Regulated	Isolated
W8	2: Wet Meadow	Reed Canary Grass, Goldenrods	Sunburg-Wadenill (L356C2)	Regulated	Isolated
W9	2: Wet Meadow 6: Shrub Swamp	Reed Canary Grass Willows	Sunburg-Wadenill-Hawick (L315D2)	Regulated	Isolated
W10	2: Wet Meadow	Reed Canary Grass	Sunburg-Wadenill (L356C2)	Regulated	Isolated
W12	2: Wet Meadow	Reed Canary Grass	Arctander (L336A)	Regulated	Isolated

Wetland ID	Wetland Type	Dominant Vegetation	Soils	WCA Regulated	USACE Regulated
W13	2: Wet Meadow 6: Shrub Swamp	Reed Canary Grass Willows	Arctander (L336A)	Exempt	Isolated
W14	2: Wet Meadow 3: Shallow Marsh	Reed Canary Grass, Sedges Cattail, Bulrushes	Sunburg-Wadenill-Hawick (L315D2)	Regulated	Isolated
W15	1: Floodplain 2: Wet Meadow 3: Shallow Marsh 6: Shrub Swamp	Reed Canary Grass Willows, Sedges Cattail, Bulrushes Boxelder	Sunburg-Wadenill (L356C2)	Regulated	Connected to WOTUS
W16	2: Wet Meadow 6: Shrub Swamp	Reed Canary Grass Willows	Sunburg-Wadenill (L356C2)	Regulated	Isolated
W17	2: Wet Meadow 3: Shallow Marsh	Reed Canary Grass, Sedges Cattail, Bulrushes	Sunburg-Wadenill-Hawick (L315E)	Regulated	Isolated
W18	2: Wet Meadow 3: Shallow Marsh	Reed Canary Grass, Sedges Cattail, Bulrushes	Sunburg-Wadenill-Hawick (L315E)	Regulated	Connected to WOTUS
W19	2: Wet Meadow 6: Shrub Swamp	Reed Canary Grass Willows	Sunburg-Wadenill-Hawick (L315E)	Regulated	Connected to WOTUS
W20	2: Wet Meadow 3: Shallow Marsh 6: Shrub Swamp	Reed Canary Grass Willows Cattail	Sunburg-Wadenill-Hawick (L315E)	Incidental (No-Loss)	Isolated
W21	1: Floodplain 2: Wet Meadow 3: Shallow Marsh 6: Shrub Swamp	Reed Canary Grass Willows Cattail Boxelder	Lundlake (318A)	Regulated	Connected to WOTUS
W22	3: Shallow Marsh 6: Shrub Swamp	Reed Canary Grass, Bulrushes Willows, Cattail	Sunburg-Wadenill-Hawick (L315E)	Regulated	Connected to WOTUS
W23	1: Deep Marsh 7: Hardwood Swamp	Boxelder Reed Canary Grass	Sunburg-Wadenill (L356C2)	Regulated	Isolated

MPCA 303d Impaired Waters List

Lake Andrew, Assessment Unit Identification (AUID) 34-0206-00, is designated as impaired based on the MPCA's 2022 impaired waters list. Lake Andrew is approximately one-half mile north of the site. (Figure 8, Appendix A). Lake Andrew is impaired for aquatic life and aquatic consumption based on fish bioassessments and the presence of mercury in fish tissues.

Floodplain and Floodway

A FIRMette was generated through the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) mapping tool³⁰, which indicates that the site is located within Zone X, an area with minimal flood hazard. Appendix D includes the FEMA FIRMette for the site.

³⁰ FMEA. 2020. National Flood Hazard Layer FIRMette. Available at: [FEMA Flood Map Service Center | Search By Address](#). Accessed August 2022.

- ii. ***Groundwater – aquifers, springs, seeps. Include: 1) depth to groundwater; 2) if project is within a MDH wellhead protection area; 3) identification of any onsite and/or nearby wells, including unique numbers and well logs if available. If there are no wells known on site or nearby, explain the methodology used to determine this.***

The site is characterized by approximately 400 to 500 feet of unconsolidated sediments between the land surface and crystalline bedrock formations. Alternating deposits with glacial tills and glaciofluvial sediments are present, with glaciofluvial deposits (sand and gravel) acting as aquifers for area wells. Multiple layers of sediments may be available which are water bearing and could supply small-to-moderate capacity wells. The proposed irrigation well for the proposed Project is anticipated to be approximately 230 feet in depth, where geologic records from Minnesota Well Index indicate that a more productive layer exists that is likely to meet irrigation requirements.

Shakopee Creek is the dominant surface water feature at the site. This feature may be in connection with shallow groundwater at the site but is believed to be hydraulically separated from deeper aquifer deposits (at the proposed 230-foot irrigation well depth) by layers of till which contain low permeability silts and clays. Pumping of the proposed irrigation well is not expected to have any impact on Shakopee Creek.

Depth to groundwater is approximately 30-45 feet for shallower aquifer units less than 100 feet from the land surface, though the water table may be higher if locally perched groundwater is present above shallow till deposits. The potentiometric surface of groundwater in deeper confined aquifer deposits (200-250 feet) is roughly at the same depth (30-45 feet), representing the pressure the aquifer is under.

According to the surrounding water well logs on the Minnesota Department of Health (MDH) Minnesota Source Water Protection Map³¹, no wellhead protection areas (WHPA) or drinking water supply management areas (DWSMA) are present within the site. The Green Lake Sanitary Sewer and Water District WHPA and DWSMA is located approximately three miles east of the site. The vulnerability ranking for this DWSMA is classified as low.

The Bonanza Valley Groundwater Management Area (GWMA) is located approximately 2.25 miles north of the site. The Minnesota legislature created groundwater management areas as a tool for the DNR to address difficult groundwater-related resource challenges. The Bonanza Valley GWMA is an area where growing needs for domestic water supplies, irrigation, industrial and other uses suggest groundwater use might be or become unsustainable. While the site is not included within the GWMA, some of the same geologic and hydrogeologic conditions that led to the creation of the GWMA may exist in the surrounding regions and require an increased awareness of groundwater resources in the area.

An examination of the MDH Minnesota Well Index identified three active water wells (Unique Well ID 419869, 612108, and 796702) along with one apparent abandoned well (Unique Well ID 332422) located on the subject property and eleven groundwater wells on immediately adjacent parcels to the project site. Table 10 provides a summary of these wells. Appendix E includes the well log reports. Figure 10, Appendix A illustrates the locations of known wells within the vicinity of the site.

³¹ MDH. Source Water Protection Map. Available at <https://mdh.maps.arcgis.com/apps/View/index.html?appid=8b0db73d3c95452fb45231900e977be4>. Accessed August 2022.

Table 10. MDH Well Database

Well ID	Name	Use Type	Elevation (msl ft.)	Well Depth (ft.)	Static Water Level (ft.)	Status
Wells within the site						
419869	THORSON, KEN	Domestic	1,214	237	84	Active
796702	HOLME, SHEILA	Domestic	1,213	223	35	Active
332433	RS-24 TOLLEFSON, DONALD	Abandoned	1,202	40	N/A	Sealed
612108	HUGHES, RODNEY	Domestic	1,201	239	24	Active
Wells adjacent to the site						
796704	NOEHL, GARY	Domestic	1,219	82	49	Active
211111	NOEHL, GARY	Domestic	1,234	80	45	Active
574939	AMMERMAN, TODD	Domestic	1,201	286	20	Active
438178	OLSON, WILLARD	Domestic	1,207	340	25	Active
332432	RS-25 TOLLEFSON, DONALD	Abandoned	1,169	40	N/A	Sealed
809692	MW-29B THOMPSON, MARK & JULIE	Monitoring	1,174	50	N/A	Active
332431	RS-21 KANDIYOHI COUNTY	Abandoned	1,202	140	N/A	Sealed
169854	DAILY, SAM	Domestic	1,223	88	N/A	Active
635468	TOLLEFSON, DONALD	Domestic	1,234	80	32	Active
733313	MILLER, JIM	Domestic	1,198	148	13	Active
643515*	BOE, ROBERT	Domestic	1,211	260	30	Active

*Not immediately adjacent to the site

b. Describe effects from project activities on water resources and measures to minimize or mitigate the effects in Item b.i. through Item b.iv. below..

i. Wastewater - For each of the following, describe the sources, quantities and composition of all sanitary, municipal/domestic and industrial wastewater produced or treated at the site.

- 1) If the wastewater discharge is to a publicly owned treatment facility, identify any pretreatment measures and the ability of the facility to handle the added water and waste loadings, including any effects on, or required expansion of, municipal wastewater infrastructure.

Due to the distance to a publicly owned treatment facility, it is not feasible for the proposed Project to connect to municipal sewer system. Therefore, wastewater treatment for the proposed

Project would be accomplished by SSTS.

- 2) *If wastewater discharge is to a subsurface sewage treatment systems (SSTS), describe the system used, the design flow, and suitability of site conditions for such a system. If septic systems are part of the project, describe the availability of septage disposal options within the region to handle the ongoing amounts generated as a result of the project. Consider the effects of current Minnesota climate trends and anticipated changes in rainfall frequency, intensity and amount with this discussion.*

It is envisioned wastewater treatment would be accomplished by multiple SSTS on the site due to the distance of the comfort station to the clubhouse and lodging buildings. Therefore, the comfort station would be served by a smaller individual SSTS and the clubhouse and lodging buildings its own SSTS. No other sanitary, municipal, or industrial wastewater sources would be generated or treated at the site. During project construction, a satellite toilet would be present and utilized to eliminate any environmental or public health concern. A permit would be required to design and construct the SSTS through the Kandiyohi County Environmental Services Department. All design and construction activities would follow the County's Sewage Treatment Ordinance No. 27 and Minnesota Rules Chapters 7080 through 7083.³²

As discussed in Item 10, a review of USDA NRCS Web Soil Survey indicates soils within the site primarily consists of the Sunburg-Wadenill-Hawick complex. These well-drained soils feature weakly structured sandy loam, fine sandy loam, and sands. Based on this desktop analysis, these soils are suitable and would likely accommodate a below-grade soil dispersal system. A soil and site investigation would be conducted including soil test pits and hand augured borings to verify soil conditions at the site.

Estimating accurate wastewater flows are important as these dictate SSTS component design and sizing. The design wastewater flow from the comfort station, clubhouse, and lodging buildings were computed based off MN Rules Chapter 7080 – 7083 and the Kandiyohi County Sewage Treatment Ordinance No. 27. Specifically, wastewater flow is based on employee counts, meals served, and lodging rooms. Within the rules, each wastewater source is assigned a flow which is summarized in the following table. Table 11 summarizes wastewater flows in gallons per day (gpd) for the Tepetonka Golf Course facilities. Cabins would be privately owned, separate from the Tepetonka Golf Course. Table 12 identifies wastewater flows associated with privately-owned cabins.

Table 11. Wastewater Flows for Tepetonka Golf Course Facilities

Wastewater Source	Unit	Total No. of Units	Flow per Unit (gpd)	Total Flow (gpd)
Comfort Station	Employee	2	15	30
Comfort Station	Lavatory	90	5	450
Golf Shop	Employee	4	15	60
Golf Shop	Employee (caddie)	10	15	150
Golf Shop	Employee (grounds crew)	2	15	30

³² Kandiyohi County. Sewage Treatment Ordinance No 27. Accessed August 2022.
https://cms3.revize.com/revize/kandiyohimn/docs/Admin/Ordinances/27_SepticOrdinance2014_05262015.pdf

Wastewater Source	Unit	Total No. of Units	Flow per Unit (gpd)	Total Flow (gpd)
Clubhouse	Employee	6	15	90
Hoggies Hang	Meals (lunch w/o alcohol)	90	3.5	315
Clubhouse	Meals (dinner w/ alcohol)	90	8	720
Clubhouse	Bar (customer)	90	4.5	405
Lodging	Occupants	50	50	2,500
Total Design Wastewater Flow:				4,750

Table 12. Wastewater Flows for Privately-Owned Cabins

Wastewater Source	Unit	Total No. of Units	Flow per Unit (gpd)	Total Flow (gpd)
Cabins	Room	36	150	5,400
Total Design Wastewater Flow:				5,400

Wastewater generated from comfort station, clubhouse, lodging buildings, and cabins would be residential strength. However, as the clubhouse and Hoggies Hang would include a kitchen with food preparation and bar, wastewater generated from this source would be higher strength. Therefore, this SSTS would include a pretreatment device to lower wastewater constituents prior to soil dispersal. It is envisioned this SSTS would include septic tanks, an aerobic treatment unit, dose tank, and a multi-celled absorption bed soil dispersal system. The soil dispersal system would receive pretreated effluent on a timed basis from submersible pumps within the dose tank governed by a main control system. Effluent would be distributed evenly within the absorption beds where it would infiltrate vertically into the native soil. The control system would include remote telemetry to provide the operator remote operations, monitoring, and alarm notifications. The comfort station would not include kitchen food preparation. Therefore, this SSTS would include a septic tank, dose tank, and below-grade soil dispersal system.

Minnesota climate trends indicate a warmer and wetter future climate in Kandiyohi County, characterized by more intense storm events and shorter winters. The primary local climate change risk factor for SSTS is inadvertent discharge of polluted effluent to surface water or groundwater due to a wetter and/or more dynamic hydrology regime. Changes in long-term temperatures do not pose a significant risk. Current SSTS rules (MN Chapter 7080-7083) provide provisions to protect SSTS from freezing temperatures and freeze/thaw cycles. These rules also include requirements for tank burial depths, tank watertightness, insulation requirements, and other considerations.

Operations of the SSTS would include routine monitoring and maintenance over its lifespan by trained personnel providing optimal performance. The SSTS permit would carry a requirement for ongoing maintenance by a certified MPCA service provider. Any performance issues would be identified as they occur. Also, SSTS are not permanent infrastructure. Most SSTS are replaced or upgraded every 25-30 years. Any future system would be designed to meet the climate conditions of the time.

Risks associated with a potentially wetter environment can be mitigated through proper siting on the property. The proposed SSTS would not be located within a floodplain or flood prone area and would be sited to provide buffer from wetlands and Shakopee Creek to minimize potential risks associated with increased precipitation or flooding.

- 3) *If the wastewater discharge is to surface water, identify the wastewater treatment methods and identify discharge points and proposed effluent limitations to mitigate impacts. Discuss any effects to surface or groundwater from wastewater discharges, taking into consideration how current Minnesota climate trends and anticipated climate change in the general location of the project may influence the effects.*

Wastewater generated on-site would not discharge to a surface water.

- ii. ***Stormwater - Describe changes in surface hydrology resulting from change of land cover. Describe the routes and receiving water bodies for runoff from the project site (major downstream water bodies as well as the immediate receiving waters). Discuss environmental effects from stormwater discharges on receiving waters post construction including how the project will affect runoff volume, discharge rate and change in pollutants. Consider the effects of current Minnesota climate trends and anticipated changes in rainfall frequency, intensity and amount with this discussion. For projects requiring NPDES/SDS Construction Stormwater permit coverage, state the total number of acres that will be disturbed by the project and describe the stormwater pollution prevention plan (SWPPP), including specific best management practices to address soil erosion and sedimentation during and after project construction. Discuss permanent stormwater management plans, including methods of achieving volume reduction to restore or maintain the natural hydrology of the site using green infrastructure practices or other stormwater management practices. Identify any receiving waters that have construction-related water impairments or are classified as special as defined in the Construction Stormwater permit. Describe additional requirements for special and/or impaired waters.***

Pre-Construction Stormwater Runoff

Under existing conditions, the site consists of grassland and forested land. No existing stormwater features are present within the existing site. Stormwater generated on-site is currently either infiltrated or routed to Shakopee Creek.

Post-Construction Stormwater Runoff

The proposed Project would include an increase in impervious surface by approximately 7.4 acres from golf cart paths, sidewalks, parking lots, and the clubhouse. Most of the site would be disturbed during construction. Following construction, the majority of the site would be revegetated and remain pervious. The proposed Project would increase the impervious surface area by more than one acre. Therefore, a stormwater management system would be required by the MPCA to mitigate stormwater runoff rate, volumes, and pollutant loading.

The proposed Project design may include a wet sedimentation basin, infiltration/filtration, regional ponding, or a combination of these practices. Treatment would be designed to contain all runoff from a 1-inch rainfall event at a minimum. A wet basin would receive water from the impervious area and provide an opportunity for settling or further irrigation on-site. During large storm events, runoff from the site would be routed to Shakopee Creek. Once runoff enters the creek it flows to the south through several wetlands and lakes (Florida Slough and Swan) before eventually discharging into the Chippewa River approximately 48 miles downstream.

A NPDES Construction Stormwater permit would be required for the proposed Project since more than one acre of land would be disturbed. Project construction would adhere to NPDES permitting requirements. A Construction Stormwater Pollution Prevention Plan (SWPPP) would be required in accordance with MPCA stormwater requirements. A SWPPP would be prepared during final project design and submitted for approval prior to construction of the proposed Project. Erosion control would consist of temporary sediment basins with ditches and check dams (sized per permit guidance), temporary ground cover where construction has paused, and perimeter control to avoid erosion and sedimentation throughout the site and in Shakopee Creek. Stockpiles would be stabilized when not in use and have the stockpile perimeter controlled. All permanent slopes 3:1 or steeper would have erosion control blankets installed.

As discussed in Item 7 (Climate Adaptation and Resilience), heavy rain events are becoming more common in Minnesota, presenting a challenge for stormwater management as rainfall volumes are predicted to increase over time due to climate change (MDNR 2022)⁸. The proposed Project includes several BMPs that would improve drainage at the site and existing condition of Shakopee Creek. As described in Item 6 (Project Description) the proposed Project has been designed with the goal of being stewards of the land and Shakopee Creek. Under existing conditions, portions of Shakopee Creek are severely eroded. The proposed Project would restore sections of the Shakopee Creek streambank, enhance vegetation, and implement a number of BMPs to improve water quality of the site.

Turf management BMPs would be implemented to minimize application of fertilizer and pesticides including spoon-feeding which involves applying small quantities of fertilizer at planting or at the base of the plant within a few weeks from emergence, which reduces fertilizer use and minimizes nutrient runoff potential compared to widespread application. Fertilizer rates are not likely to exceed 150lb/acre total during the first year of establishment for each of the primary macronutrients- nitrogen, phosphorus, and potassium. Additionally, GPS guided sprayers would be used to improve accuracy of application near shoreland areas and minimize the amount of fertilizer and pesticides applied. Turf management BMPs are described in greater detail in Item 6. Spoon-feeding nutrients and water would sustain the grass in a deficient growth state creating the thin hard surface needed to facilitate the proposed Project goal of a firm and fast playing surface.

Chemical-free buffer areas would be established to minimize water quality impacts to nearby surface waters. In accordance with the Handbook it is intended that No Spray Zones are established within the first 25 feet landward (no pesticide use) and Limited Spray Zones (selected pesticide use) including that area from 25 to 50 feet landward. Proposed on-site drainage improvements and potential on-site wetland restoration would enhance drainage conditions at the site. Wetlands provide capacity to receive and temporarily store stormwater runoff during heavy rain events. The proposed Project has been designed to minimize impacts to wetlands to the extent possible and will consider on-site wetland restoration opportunities.

- iii. *Water Appropriation - Describe if the project proposes to appropriate surface or groundwater (including dewatering). Describe the source, quantity, duration, use and purpose of the water use and if a DNR water appropriation permit is required. Describe any well abandonment. If connecting to an existing municipal water supply, identify the wells to be used as a water source and any effects on, or required expansion of, municipal water infrastructure. Discuss environmental effects from water appropriation, including an assessment of the water resources available for appropriation. Identify any measures to avoid, minimize, or mitigate environmental effects from the water appropriation.***

The proposed Project would require installation of an irrigation well and domestic water supply wells. New on-site wells would be installed to provide water for the cabins and comfort station. It is anticipated that the clubhouse, lodge, and office/staff housing building would be served by an existing well. However, if testing results determine that the well is not adequate, a new well would be installed to serve these amenities.

A proposed irrigation pond would collect surface water which would be reused for irrigation of golf fairways, tees, and greens. The irrigation well would be constructed to supplement irrigation needs. The proposed irrigation pond is anticipated to provide an approximately ten-day water capacity storage of 6,480,000 gallons. It is anticipated that water demand would be higher initially in the first one to two years as the turf is established and would decline once the golf course is established.

To operate an irrigation well at the site, a permitting process with the DNR would need to be followed. The permitting process requires testing and data collection to demonstrate that the proposed well meets the following requirements³³:

- i. No negative impacts will be allowed on nearby wells already in operation. Impacts to other wells will necessitate a cessation of irrigation pumping until the impacts can be resolved.
- ii. No negative impacts will be allowed on natural resources (streams, wetlands, etc.) that are dependent on groundwater resources.

Additionally, construction of a water supply well would be required to adhere to the regulations in Minnesota Rule 4725.4450 Water-Supply Well Distances from Contamination. These regulations, enforced by the MDH, provide the requirements and standards for well and boring construction and sealing, and water quality testing that are carried out through the DNR permitting process.

Once it has been determined that the above conditions are met, then it is expected that the DNR would approve a permit allowing for irrigation well usage. Should data become available that shows negative impacts are occurring after the permit has been issued, the DNR can immediately withdraw the permit until the negative conditions are rectified.

Though not expected, if shallow groundwater is encountered within the area during construction, a temporary dewatering permit from the Minnesota DNR would be required if dewatering exceeds 10,000 gallons per day or 1,000,000 gallons per year. Groundwater testing should be performed to determine if the groundwater is contaminated before dewatering activities begin. If groundwater is contaminated, State and local agency input would be required to select an appropriate discharge location and/or on-site treatment of contaminated water.

Climate change trends may affect surface water and groundwater interactions that may lead to long-term uncertainty regarding surface and groundwater levels, resulting in impacts to groundwater supply availability, quality, and quantity. Surface and groundwater quantity is driven by the balance of atmospheric input from precipitation and losses due to evapotranspiration.³⁴ As described in Item 6 (Project Description) the proposed Project would include BMPs to minimize water use and conserve water. An irrigation schedule driven by an on-site weather station and in-situ soil moisture sensors would be used to closely monitor irrigation needs. Additionally, a proposed irrigation pond

³³ Requirements identified are typical considerations that are applied during the DNR's review of Water Appropriations Permit applications in accordance with the permitting requirements established in MN Statutes 103G.287.

³⁴ DNR. *Climate's Impact on Water Availability*. Updated October 19, 2021 https://www.dnr.state.mn.us/climate/water_availability.html

would collect surface water to be reused for irrigation of the golf course. Furthermore, turfgrass species which require reduced water and fertilizer needs would be selected.

iv. Surface Waters

- a) Wetlands – Describe any anticipated physical effects or alterations to wetland features such as draining, filling, permanent inundation, dredging and vegetative removal. Discuss direct and indirect environmental effects from physical modification of wetlands, including the anticipated effects that any proposed wetland alterations may have to the host watershed, taking into consideration how current Minnesota climate trends and anticipated climate change in the general location of the project may influence the effects. Identify measures to avoid (e.g., available alternatives that were considered), minimize, or mitigate environmental effects to wetlands. Discuss whether any required compensatory wetland mitigation for unavoidable wetland impacts will occur in the same minor or major watershed and identify those probable locations.**

During the development of the proposed Project design, opportunities to minimize wetland impacts have been considered. However, it is not anticipated that wetlands would be entirely avoided. A wetland delineation identified 21 wetlands within the site. The identified wetlands range in morphology and size and encompass Type 1 seasonally flooded, Type 7 wooded swamp, Type 2 wet meadow, Type 3 shallow marsh, and type 6 shrub swamps. The majority of these wetlands are small and isolated, having no effect on any surrounding wetland areas. Two of the wetlands in the center of the site are believed to have been created by manmade check dams to provide ponds for livestock which were previously on-site. Figure 9, Appendix A illustrates the potential impacts to wetlands resulting from the proposed Project. Table 13 identifies the potential wetland impacts resulting from the proposed Project.

Table 13. Potential Wetland Impacts (Acres)

Wetland ID	Size	Potential Impact	WCA Regulated Impact	WCA Mitigation required at 2:1 ratio	CWA Section 404 Regulated Impact	CWA Section 404 Mitigation at 2:1 ratio
W1	0.11	0.11	0.11	0.22	0	0
W2	0.57	0	0	0	0	0
W3*	0.39	0.39	0	0	0	0
W4	2.00	0	0	0	0	0
W4b	0.58	0.07	0.07	0.14	0.07	0.14
W6	0.20	0.20	0.20	0.40	0	0
W8	0.14	0	0	0	0	0
W9	0.07	0	0	0	0	0
W10	0.33	0.33	0.33	0.66	0	0
W12	0.16	0.16	0.16	0.32	0	0
W13**	1.01	1.01	0	0	0	0
W14	1.15	1.15	1.15	2.30	0	0
W15	10.09	0.18	0.18	0.36	0.18	0.36
W16	0.06	0	0	0	0	0
W17	0.12	0	0	0	0	0

Wetland ID	Size	Potential Impact	WCA Regulated Impact	WCA Mitigation required at 2:1 ratio	CWA Section 404 Regulated Impact	CWA Section 404 Mitigation at 2:1 ratio
W18	0.51	0	0	0	0	0
W19	0.33	0	0	0	0	0
W20*	0.68	0.68	0	0	0	0
W21	1.67	0	0	0	0	0
W22	0.13	0	0	0	0	0
W23	0.24	0	0	0	0	0
Total	20.54	4.28	2.20	4.40	0.25	0.50

*Incidental wetlands not regulated under WCA and non-jurisdictional under USACE

**Exempt from mitigation under WCA and non-jurisdictional under USACE

Wetland impacts would be confirmed during the permitting phase based on final design project limits. Total potential wetland impacts are anticipated to be approximately 4.28 acres. Of the total potential wetland impacts, approximately 2.20 acres of anticipated wetland impacts are regulated under WCA. USACE would regulate approximately 0.25 acres of anticipated wetland impacts resulting from the proposed Project.

Wetlands within the site may be subject to regulations by the following rules and agencies:

- Clean Water Act (CWA) Section 404 –USACE;
- Potential for Clean Water Act 401 certification from Minnesota Pollution Control Agency);
- WCA – Kandiyohi County Environmental Services
- Public Waters Work Permit – Minnesota Department of Natural Resources

WCA requires that impacts to wetlands be avoided and minimized to the greatest practicable extent and that alternatives to impacts are examined. Alternatives can include a ‘no build’ scenario, as well as examining other potential locations for development within the site. Should alternative locations not be feasible, then the Proposer would design the area in a manner to minimize and avoid wetland impacts to the greatest practicable extent. The WCA local government unit (LGU), and other appropriate stakeholders, would be consulted during this process.

On-site wetland mitigation would be considered for wetland restoration opportunities located within the site that would yield wetland mitigation credit. Wetland banking would be used if on-site locations are not available and/or if agencies recommend the use of a wetland bank. There are wetland bank credits available in Bank Service Area (BSA) 9.

Standard BMPs consistent with the NPDES permits would be implemented during construction to avoid and minimize turbidity, sedimentation, stormwater runoff and other potential effects to undisturbed wetlands within the site.

- b) Other surface waters – Describe any anticipated physical effects or alterations to surface water features (lakes, streams, ponds, intermittent channels, county/judicial ditches) such as draining, filling, permanent inundation, dredging, diking, stream diversion, impoundment, aquatic plant removal and riparian alteration. Discuss direct and indirect environmental***

effects from physical modification of water features, taking into consideration how current Minnesota climate trends and anticipated climate change in the general location of the project may influence the effects. Identify measures to avoid, minimize, or mitigate environmental effects to surface water features, including in-water Best Management Practices that are proposed to avoid or minimize turbidity/ sedimentation while physically altering the water features. Discuss how the project will change the number or type of watercraft on any water body, including current and projected watercraft usage.

Shakopee Creek is within the site. Creek crossings would be constructed across Shakopee Creek to allow golfers to get from the parking area and clubhouse area in the northeast portion of the site to cross the creek to the west side of the site where most of the golf course is proposed. Construction of creek crossings would minimize disturbance to the stream and streambanks. Crossings would be stabilized and revegetated following disturbance. Shakopee Creek is a DNR Public Water. Construction of stream crossings over the creek may require a DNR Public Waters Works Permit.

Shakopee Creek and its headwaters are severely degraded with actively eroding banks, incised channelization, and lack of connectivity to the natural floodplain. Shakopee Creek is significant source of sediment to the Chippewa River, which is impaired for turbidity. The Proposer has partnered with stream restoration specialists to evaluate restoration opportunities to incorporate into the design of the proposed Project. Stream restoration improvements that are being considered include establishing a native plant buffer along the creek, creating in-stream habitat, revegetating wetlands adjacent to the stream with native species, restoring natural hydrology to an adjacent wetland complex by filling an unused channelized ditch system, and removing two culverts in the stream channel to restore natural flow.

No other surface waters would be directly impacted by the proposed Project.

13. Contamination/Hazardous Materials/Wastes

- a. Pre-project site conditions – Describe existing contamination or potential environmental hazards on or in close proximity to the project site such as soil or ground water contamination, abandoned dumps, closed landfills, existing or abandoned storage tanks, and hazardous liquid or gas pipelines. Discuss any potential environmental effects from pre-project site conditions that would be caused or exacerbated by project construction and operation. Identify measures to avoid, minimize or mitigate adverse effects from existing contamination or potential environmental hazards. Include development of a Contingency Plan or Response Action Plan.***

The existing Kandiyohi County landfill is located approximately 1.5 miles southeast of the site. Appendix G provides a memorandum from Gary Geer, Environmental Services Director at Kandiyohi County, which summarizes the history, contamination, and investigations conducted at the landfill. The following paragraphs provide a summary of this memorandum.

The Kandiyohi County landfill has been in operation since 1969. From its inception through the early 1990's, waste was placed into the landfill in a "trench and fill" disposal method. This resulted in significant groundwater contamination. Development of Resource Conservation and Recovery Act (RCRA) Subtitle D Federal regulations in the early 1990s required robust engineering practices to be adopted and environmental protections to be implemented at all waste disposal facilities including the Kandiyohi County Landfill. These protections included stabilization of the contaminate plume expansion, major revisions to best management practices (BMPs) at the landfill, and extensive monitoring of the

contaminate plume. Refer to Figure 12 (Contamination Plume and Proposed Irrigation Well Location), Appendix A. Groundwater monitoring started in 1994 and continues to this day. Nearly 30 years of investigations and monitoring have established the following facts, which are laid out in Mr. Geer’s memorandum:

- A contamination plume of tetrachloroethene and vinyl chloride has been delineated originating from pre-Subtitle D disposal activities at the Kandiyohi County Landfill facility.
- The contamination plume likely impacts the surface aquifer at relatively shallow depths. Impacts to other aquifers are limited by either impermeable soils or lack of hydraulic connections.
- Tetrachloroethine fully degrades to vinyl chloride in anaerobic groundwater. Vinyl chloride, in turn, dissipates or degrades to inert products when exposed to the atmospheric conditions at the interface between groundwater and surface water and limits further transmission downstream or into other aquifers. Shakopee Creek would act as the interface between groundwater and surface water, limiting further migration of vinyl chloride.
- A high to moderate risk of impact exists for surface water and shallow wells drilled into the surface aquifer within the plume and a 500-foot buffer surrounding the plume boundary.
- A low risk of impact exists for surface water and shallow wells drilled into the surface aquifer within 1,000 feet of the plume and are not within the potential flow path of the plume.
- A negligible risk exists for wells properly drilled, using appropriate BMPs, into lower aquifers – even directly within the footprint of the contamination plume.
- The county intends to limit impacts to those currently observed.
- Monitoring the plume area and buffer zone provides data so the county, landowners, developers, and recreational users can make informed decisions.

Based on the information that Mr. Geer has provided on behalf of Kandiyohi County, it is not anticipated that the construction or operations of the proposed Project would exacerbate the contamination from the landfill, as the contamination is located within the surficial aquifer and the proposed Project would not utilize the surficial aquifer. Wells to be installed on-site for domestic and irrigation water supply for the proposed Project would be drilled into lower aquifers, using appropriate BMPs, in accordance with the recommendations of the County. In the vicinity of the Project, the Kandiyohi County Geologic Atlas (Hamilton, et.al. 2019) identifies several till units below the site. A review of MDH well log reports available through the Minnesota Well Index identifies clay till layers over 100 feet thick present beneath the site. These clay till layers would act as a confining layer to inhibit downward migration of vinyl chloride to the lower aquifers (MDH 2023). With these appropriate precautions, along with the continued monitoring of the plume by the County, it is anticipated that groundwater resources can be safely utilized for water supply and irrigation.

Additionally, a review of the MPCA *What’s in my Neighborhood* *(WIMN) database³⁵ was conducted to identify documented potentially contaminated sites within or in the vicinity of the site. No MPCA sites were identified within the site. Within one-half mile of the site, two sites were identified. Figure 11, Appendix A identifies MPCA WIMN sites within the vicinity of the site. Table 14 summarizes sites within one-half mile of the site.

Table 14. MPCA WIMN Sites within One-Half Mile of the Site

³⁵ MPCA 2020. What’s in My Neighborhood. Available at: <https://www.pca.state.mn.us/data/whats-my-neighborhood>. Accessed August 2022.

Site Name	Site Address	Site ID	MPCA Program
Joel O Johnson Farm	18501 13 th St NE	71777	• Feedlot registration (067-82123, active)
Parks & Trails Council of MN	2402 CR 40 NE	151682	• Solid waste, general concrete burial (GCB000011, active)

Joel O Johnson Farm, located approximately one-half mile northeast of the site, is identified as a feedlot where livestock are confined in lots or buildings where manure may accumulate. This feedlot was originally registered in 2001, and the registration has been updated regularly since, with the current registration term continuing through January 28, 2024. The Parks and Trails Council of MN site is approximately a half mile east of the site. This site received a permit to bury uncontaminated concrete on the site where it was originally used in 2017. No other known existing contamination sites or potential environmental hazards are documented in close proximity to the site.

The MPCA WIMN database did not identify any known potentially contaminated sites or hazardous materials within or within close proximity to the site that would be exposed or exacerbated by the construction of the proposed Project. In the event that potentially contaminated soils or other potentially hazardous materials are encountered during construction, plans would be developed to properly handle and treat contaminated soil and/or groundwater. Any contaminated soils or other potentially hazardous materials encountered during construction would be handled and disposed of in accordance with MPCA and any other applicable requirements.

- b. Project related generation/storage of solid wastes - Describe solid wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from solid waste handling, storage and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of solid waste including source reduction and recycling.***

Construction Waste

Construction wastes would be typical of golf course and lodging uses. Construction wastes would primarily consist of non-hazardous and would be managed as municipal solid waste (MSW) or construction/ demolition debris. Hazardous wastes in the form of used oils/lubricants, waste paints, or other materials may be generated during construction. The contractor would be required to manage and dispose of all construction-generated waste in accordance with MPCA requirements and all other applicable regulatory requirements. Construction wastes would either be recycled or stored in approved containers and disposed of in the proper facilities. Any excess soil material that is not suitable for use on-site would become the property of the contractor and would be disposed of properly. All solid waste would be managed according to MPCA and other regulatory requirements.

As described in Item 6.b (Project Description), it is anticipated construction of the proposed Project would require demolition of existing farmstead buildings including a barn and house. Solid wastes generated from the demolition of the existing structures would be disposed of as construction/demolition debris at a permitted landfill.

Hazardous waste may be generated during construction from demolition of the existing farmstead and barn structures. If encountered, regulated materials such as asbestos, lead, and other regulated wastes would be abated and properly disposed of at a permitted facility. A pre-demolition hazardous materials survey would be completed prior to the start of demolition activities. If any regulated materials such as

asbestos-containing materials, lead-based paint and other regulated materials/wastes are present, an abatement plan would be prepared to address removal and proper disposal of regulated materials identified in the hazardous materials survey. If required, a comprehensive abatement closeout report would be prepared following abatement and demolition activities, which would document the removal, management, and disposal of any regulated materials.

Operational Waste

The proposed Project would generate solid waste during operation of the golf course and lodging facilities. Solid waste generated during operation of the development would be typical of waste generated by these uses and would be primarily managed as mixed municipal solid waste (MSW). The California Department of Resources Recycling and Recovery (CalRecycle) provides a list of estimated solid waste generate rates for commercial, industrial, service, and other establishments for general planning purposes.³⁶ Based on estimated solid waste generate rates of 0.5 lbs. per golfer per day and 2 lbs. per room per day, it was estimated that the proposed Project may produce approximately 11 tons of MSW per year assuming operation from May through October. The collection of MSW would be managed by a licensed waste hauler. The proposed Project would adhere to all MPCA requirements and other regulations pertaining to the use, handling, and disposal of solid waste. Recycling areas would be provided in compliance with the Minnesota State Building code.

- c. *Project related use/storage of hazardous materials - Describe chemicals/hazardous materials used/stored during construction and/or operation of the project including method of storage. Indicate the number, location and size of any above or below ground tanks to store petroleum or other materials. Discuss potential environmental effects from accidental spill or release of hazardous materials. Identify measures to avoid, minimize or mitigate adverse effects from the use/storage of chemicals/hazardous materials including source reduction and recycling. Include development of a spill prevention plan.***

Construction equipment may require the limited use of potentially hazardous materials, such as gasoline or diesel fuels, motor oils, hydraulic fluids, and other lubricants. During construction, it is anticipated that temporary small tanks with fuel, oil, and other operating liquids would be located on-site. These tanks would be located within a designated staging area and would have the proper containment and safeguards in compliance with MPCA standards for aboveground storage tanks. The proposed maintenance facility would include a permanent aboveground fuel storage tank. Tank registration with the MPCA would be required for any aboveground storage tank with a capacity of 500 gallons or greater. The aboveground storage tank must adhere to the design standards and operating regulations pursuant to Minnesota Rules Chapter 7151, as applicable.

Any cumulative storage over 1,320 gallons would require a Spill Prevention, Control and Countermeasures (SPCC) plan prepared by a Minnesota Professional Engineer pursuant to federal regulations. The SPCC would address storage of petroleum and other products in this manner is typical at construction sites, and the measures implemented are expected to mitigate the potential risk of spills from the stored materials. Construction staff would be trained to spot and appropriately respond to potential spills. In the event that a leak or spill incident occurs, the contractor would be required to respond in accordance with MPCA containment and remedial action procedures.

- d. *Project related generation/storage of hazardous wastes - Describe hazardous wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential***

³⁶ CalRecycle. 2019. Estimated Solid Waste Generation Rates. Available at: <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates>. Accessed April 2022.

environmental effects from hazardous waste handling, storage, and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of hazardous waste including source reduction and recycling.

It is not anticipated that the Project would generate or require storage of hazardous wastes during its construction or operation. Item 12.c describes the potential storage and use of hazardous materials during construction and operation of the proposed Project.

14. Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources (Rare Features)

a. Describe fish and wildlife resources as well as habitats and vegetation on or in near the site.

Fish and wildlife habitat areas exist throughout the state and are not all specifically designated. Nearly all undeveloped land has some wildlife habitat value. The quality and value of the habitat depends on many factors including the degree of disturbance, the nature of the adjoining areas, and the area and type of vegetation or water resources present. This section describes the presence of habitats within the site. Anticipated effects of the proposed Project are described in response to EAW Item 14.c.

The site is largely comprised of formerly cropped areas that were converted to grassland, as well as the historically pastured corridor along Shakopee Creek. Former crop ground areas occur on moderate to sharply rolling upland terrain. Formerly cropped areas on the west side of the site were seeded to smooth brome (*Bromus inermis*), reportedly in the mid-1990s. Currently, this area is still dominated by smooth brome, with a substantial amount of eastern red cedar (*Juniperus virginiana*) seedlings and saplings, comprising approximately 10% of the total aerial cover. Some plant species characteristic of dry-mesic to dry prairie have recolonized the driest slopes and hilltops in the smooth-brome dominated grassland, including species such as pussytoes (*Antennaria spp.*) and stiff goldenrod (*Solidago rigida*). This larger expanse of open area on the southwest side of the site provides habitat for grassland bird species, including bobolink (*Dolichonyx oryzivorus*) and dickcissel (*Spiza americana*) which were observed at the site in June 2022.

The formerly cropped areas on the east side of Shakopee Creek were seeded to native prairie species and are currently dominated by a mix of warm season native grasses, including big bluestem (*Andropogon gerardii*) and Indian grass (*Sorghastrum nutans*), and the nonnative Kentucky bluegrass (*Poa pratensis*).

Former pasture area along the Shakopee Creek corridor is characterized by moderate to steep slopes. Upland vegetation on the slopes includes a combination of nonnative, cool season pasture grasses (e.g., Kentucky bluegrass), native prairie grasses and forbs, as well as varying amounts of native tree and invasive shrub cover. Sapling to mature eastern red cedars are the dominant woody cover on the former pasture slopes, with total tree cover varying from moderately open to dense, depending on location. These areas provide habitat for generalist wildlife species including white-tail deer (*Odocoileus virginianus*), field mice (*Apodemus sylvaticus*), opossum (*Didelphidae*), and grassland/woodland edge bird species including blue jay (*Cyanocitta cristata*), eastern kingbird (*Tyrannus tyrannus*) and similar.

The slopes and side valleys of Shakopee Creek on the site support a variety of plant communities, including floodplain meadows dominated by reed canary grass (*Phalaris arundinacea*) in some areas, but in others supporting diverse native plant species characteristic of wet/sedge meadow and wet prairie, including tussock sedge (*Carex stricta*), bluejoint grass (*Calamagrostis canadensis*), prairie cordgrass (*Spartina pectinata*), lakebank sedge (*Carex lacustris*), spotted Joe-pye weed (*Eutrochium purpureum*), boneset (*Eupatorium perfoliatum*), Virginia mountain mint (*Pycnanthemum virginianum*), and others. There are numerous areas along Shakopee Creek, particularly on the southeast side of the site, which

support southern seepage wet meadows on slight to moderate slopes that are driven by seeps and a few small springs. Several sidehill seep/spring areas are present on the southeast side of the site that have buoyant peat – these areas, albeit small, have the most native plant cover and native species present are characteristic of good quality southern seepage meadow/carr.

- b. Describe rare features such as state-listed (endangered, threatened or special concern) species, native plant communities, Minnesota County Biological Survey Sites of Biodiversity Significance, and other sensitive ecological resources on or within close proximity to the site. Provide the license agreement number (LA-____) and/or correspondence number (ERDB _____) from which the data were obtained and attach the Natural Heritage letter from the DNR. Indicate if any additional habitat or species survey work has been conducted within the site and describe the results.**

State Listed Species and Rare Features

A review of the DNR's Natural Heritage Information System (NHIS) database for rare/unique natural features in the vicinity of the site was conducted using Stantec's license agreement (LA 1005) with the DNR and the online review tool, the Minnesota Conservation Explorer (MCE, #2022-00555). Appendix H provides the MCE NHIS review response. There are no state-listed endangered, threatened or special concern species documented within the site. Three NHIS Database records are within one mile of the site including lark sparrow (*Chondestes grammacus*; special concern) documented to the south of the site, Forster's tern (*Sterna forsteri*; special concern) documented to the east, and pugnose shiner (*Notropis anogenus*; threatened) documented at Andrew Lake to the north. As such, there would be no impact to the lark sparrow, Forster's tern, or pugnose shiner.

One Minnesota County Biological Survey Sites of Biodiversity Significance (MBS)-mapped site of moderate quality is present within the southeast portion of the site and two MBS site within one-mile of the site (one below average and one moderate quality). No native plant communities are mapped within the site; however, there are three mapped native plant communities within one-mile of the site: Mrp83a - Cattail Marsh (Prairie) and WMn82a Willow-Dogwood Shrub Swamp to the east of the site and a MHs38B Basswood-Bur Oak (Green Ash) Forest to the northeast, adjacent to additional MBS-mapped native plant communities extending to the northwest into Sibley State Park.

As also noted in Item 13a, there are several sidehill seep/spring areas on the southeast side of the site that have buoyant peat. Although small in total area, these seeps represent good quality Southern Seepage Meadow/carr WMs83 according to the DNR's Field Guide to the Native Plant Communities of Minnesota: The Eastern Broadleaf Forest Province. None of the seepage meadow/carr areas support overall plant species composition or structural characteristics to be classified as calcareous fen. Although prairie sedge (*Carex prairea*) was relatively common across all seepage meadow areas, and two other plants species that were observed that are known to occur in calcareous fens (bog birch (*Betula pumila*) and bulbous bittercress (*Cardamine bulbosa*)), they were present in low amounts. Other plant species that are strong indicators of a calcareous fen (calciphiles) were not observed during field visits in May and June 2022. As well, vegetation around discharge/seep areas was generally taller and dominated by plant species characteristic of seepage meadow compared to shorter, often narrowleaf graminoid and/or calciphile plant species-dominated vegetation typical of calcareous fen discharge zones. No marl/mineral deposits (characteristic of calcareous fens) were observed at the one actively flowing groundwater discharge area during the spring 2022 field visits.

Federally Listed Species

Stantec used the USFWS's Information for Planning and Consultation (IPaC) online to gather data about federally listed threatened and endangered species that may occur within the site. The USFWS IPaC lists

the northern long-eared bat (*Myotis septentrionalis*; NLEB) as federally threatened and the monarch butterfly (*Danaus plexippus*) as a federally listed candidate species (and is therefore not federally regulated). Appendix H provides the IPaC species list results.

Suitable roosting, forage, and travel habitat for northern long-eared bats (NLEB) in the summer consists of a wide variety of forested and wooded habitats. While roosting, NLEB is generally found in deep crevices in areas such as forests and woodlots (i.e., live or dead trees and/or snags greater than or equal to three inches diameter at breast height) that have exfoliating bark, cracks, crevices, and/or cavities as well as linear features such as fencerows, riparian forests, and other wooded corridors that are contiguous with woodlots. (Sasse and Perkins 1996³⁷, Foster and Kurta 1999³⁸, Owen et al. 2003³⁹). During winter months, NLEB hibernate in caves or abandoned mines (Foster and Kurta 1999²). The NLEB is federally listed as endangered, effective March 31, 2023⁴⁰, due to marked population declines caused by white-nose syndrome (WNS).

Furthermore, Stantec reviewed the WNS spread map⁴¹ and determined that the site is outside of the known WNS zone, and also reviewed the USFWS and MN DNR joint document, *Townships Containing Documented NLEB Maternity Roost Trees and/or Hibernacula Entrances in Minnesota*⁴², which indicated that Kandiyohi County does not contain any known maternity roost colonies or hibernacula.

- c. ***Discuss how the identified fish, wildlife, plant communities, rare features and ecosystems may be affected by the project including how current Minnesota climate trends and anticipated climate change in the general location of the project may influence the effects. Include a discussion on introduction and spread of invasive species from the project construction and operation. Separately discuss effects to known threatened and endangered species.***

Wildlife and Plant Communities

The proposed Project would result in temporary impacts to wildlife and plant communities within the site. Impacts will primarily occur during the construction phase of the proposed Project resulting from site disturbance and construction noise. In the active play areas of the site, operational activities and golfers would disturb wildlife while the golf course is in operation. The Proposer will incorporate environmental stewardship within its operational practices, including native prairie and wetland restoration, invasive species management, and restoration of Shakopee Creek streambank. These practices are expected to environmentally enhance non-active play portions of the site, which would provide habitat to wildlife.

Northern Long-eared Bat

Suitable summer and maternity roost habitat for NLEB may occur within the site. Tree clearing during the winter months (November 1 to March 31) will be considered. Based on the current regulations for NLEB,

³⁷ Sasse, D.B., and P.J. Pekins. 1996. Summer roosting ecology of northern long-eared bats (*Myotis septentrionalis*) in the White Mountain National Forest. Bats and forests symposium. British Columbia Ministry of Forests Working Paper 23:91-101.

³⁸ Foster, R. W. and A. Kurta. 1999. Roosting ecology of the northern bat. (*Myotis septentrionalis*) and comparisons with the endangered Indiana bat (*Myotis sodalis*). Journal of Mammalogy 80:659–672.

³⁹ Owen, et al. 2003. Homerange size and habitat use by northern Myotis (*Myotis septentrionalis*). American Midland Naturalist 150: 352-359.

⁴⁰ USFWS. 2023b. Effective date to reclassify northern long-eared bat as endangered extended. Available at: <https://www.fws.gov/press-release/2023-01/effective-date-reclassify-northern-long-eared-bat-endangered-extended>. Accessed March 2023.

⁴¹ White-nose Response Team. August 30, 2019 WNS Spread Map. Available at: https://s3.us-west-2.amazonaws.com/prod-is-cms-assets/wns/prod/2d8b8030-21ac-11ea-a154-67ca1cde5e5d-WNSSpreadMap_8_30_2019.jpg. Accessed August 2022.

⁴² DNR/USFWS. June 7, 2021. Accessed August 2022.
https://files.dnr.state.mn.us/eco/ereview/minnesota_nleb_township_list_and_map.pdf

the proposed Project may affect, not likely to adversely affect this species. At this time, USFWS has not issued new guidance for NLEB. It is anticipated that new guidance will be released in spring 2023 following the reclassification of the NLEB on March 31, 2023.

As discussed in Item 7 (Climate Adaptation and Resilience), climate trends and modeling data indicate Minnesota will experience an increase in temperature, precipitation, and more frequent extreme precipitation events resulting from climate change. Changes in temperature and precipitation may influence the NLEB's available suitable roosting and foraging habitat, as well as prey availability (USFWS 2022c)⁴³. Although a less significant stressor compared to white-nose syndrome, climate change variables may negatively affect the NLEB (USFWS 2022b)⁹.

Monarch butterfly

Suitable habitat for the monarch butterfly is not present within the site and there will be no effect on the species as a result of the proposed Project. As discussed in Item 7, climate change is anticipated to result in increasing temperatures, which may increase the number of days and the area in which monarch butterfly populations will be exposed to unsuitably high temperatures. This may cause monarch butterflies to utilize fat stores too quickly at their overwintering sites and may result in them incorrectly judging when to enter and exit states of dormancy.⁴⁴

Invasive species

Noxious weeds and invasive species in Minnesota are managed through the Department of Agriculture (MDA) under Minnesota Statutes, Section 18.78 and local ordinances. BMPs during construction activities and operation within the site should be implemented to minimize the introduction or spread of noxious weeds and invasive species. These practices include cleaning vehicles and equipment of mud and dirt from other construction areas and minimizing soil disturbance (USDA undated)⁴⁵.

As describes in Item 6 (Project Description) the proposed Project would include restoration improvements proposed include removal of invasive species including buckthorn, which is a dominant understory shrub present along portions of Shakopee Creek.

d. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to fish, wildlife, plant communities, and sensitive ecological resources.

The proposed Project design seeks to minimize negative impacts to sensitive ecological features including steep slopes, wetlands, seeps/springs, threatened and endangered species, and similar. Project designers have worked with ecologists, wetland scientists and stream restoration specialists and gone through multiple design iterations in an effort to minimize negative impacts. The configuration and footprint of developed and actively maintained golf areas would be constructed in a manner to retain as much habitat as practicable and minimize fragmentation of habitat along the Shakopee Creek corridor, in grassland and seepage meadow areas that have the highest amount of pre-existing native plant cover at the site.

To mitigate potential negative habitat value and wildlife impacts, the proposed Project would include avoidance and minimization during construction and operation. At this time, impacts to NLEB are not anticipated as the site is located wholly outside of known WNS zones, roost colonies, and known hibernacula, therefore, seasonal tree clearing restrictions are not required under current regulations. Given

⁴³ USFWS. 2022c. Northern Long-Eared Bat Overview. Available at: fws.gov/species/northern-long-eared-bat-myotis-septentrionalis. Accessed September 2022

⁴⁴ The Wildlife Society. 2019. Watch: Temperature drives internal clock for monarchs. Available at: <https://wildlife.org/watch-temperature-drives-internal-clock-for-monarchs/>. Accessed September 2022.

⁴⁵ USDA National Invasive Species Information Center. Undated. Best Management Practices. Available at: <https://www.invasivespeciesinfo.gov/subject/best-management-practices>. Accessed September 2022.

the reclassification of NLEB as endangered and changing regulations, further review of this species and implementation of construction avoidance and mitigation measures may be required once new guidance is issued by USFWS. It is anticipated that proposed selective tree clearing could be restricted to the winter (November 1 to March 31), if required.

The proposed Project would also conduct ecological restoration of habitat in out of play areas. Restoration activities during the construction phase of the proposed Project would include thinning of eastern red cedar in grassland areas; treatment of invasive, nonnative brush and trees in wetland and woodland areas; reduction of invasive, nonnative grasses in upland areas; as well as native grass, forb and sedge enrichment seeding. The proposed Project design views native habitats as a positive and integral part of the aesthetic of the project. Following grow-in maintenance, restored habitats are anticipated to be maintained over time through periodic application of prescribed fires, spot mowing, spot spraying, and similar tools used in natural areas management.

Bank stabilization techniques proposed for high priority areas along Shakopee Creek use natural materials, while minimizing stone to essential areas. Techniques such as toewood, J-hooks, and constructed riffles would improve in-stream habitat while improving stream function and reducing annual sediment inputs from eroding banks.

15. Historic Properties

Describe any historic structures, archeological sites, and/or traditional cultural properties on or in close proximity to the site. Include: 1) historic designations, 2) known artifact areas, and 3) architectural features. Attach letter received from the State Historic Preservation Office (SHPO). Discuss any anticipated effects to historic properties during project construction and operation. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to historic properties.

The Minnesota State Historic Preservation Office (SHPO) was contacted regarding the presence of architectural or archaeological resources. Cultural and archaeological resources have not been documented within the site. Appendix I provides correspondence from SHPO.

16. Visual

Describe any scenic views or vistas on or near the project site. Describe any project related visual effects such as vapor plumes or glare from intense lights. Discuss the potential visual effects from the project. Identify any measures to avoid, minimize, or mitigate visual effects.

The proposed Project is located in a somewhat scenic area with gently sloping hills overlooking the Shakopee Creek and adjacent areas. A lighting plan would be developed during final design. It is the intent of the Proposer to minimize visibility of the golf course from the CSAH 40. Minimal lighting would be installed as part of the proposed Project which would consist of downward facing, full cut-off fixtures near building entrances and path lighting along the golf course. Trees along the northern boundary of the site would be preserved to provide a natural buffer along CSAH 40. The proposed Project would not negatively affect any

scenic views or vistas with any lights, vapor plumes, tall structures, or other features. The proposed Project has been designed to preserve the natural landscape of the area and preserve the Shakopee Creek corridor.

17. Air

- a. ***Stationary source emissions - Describe the type, sources, quantities and compositions of any emissions from stationary sources such as boilers or exhaust stacks. Include any hazardous air pollutants, criteria pollutants, and any greenhouse gases. Discuss effects to air quality including any sensitive receptors, human health or applicable regulatory criteria. Include a discussion of any methods used assess the project's effect on air quality and the results of that assessment. Identify pollution control equipment and other measures that will be taken to avoid, minimize, or mitigate adverse effects from stationary source emissions.***

The proposed Project would not generate stationary source emissions that would negatively impact the surrounding area. Proposed buildings may utilize natural gas and electric-powered equipment, which would generate negligible air emissions. An inventory of potential electric and natural gas equipment to be installed at these facilities is not known at this time.

- b. ***Vehicle emissions - Describe the effect of the project's traffic generation on air emissions. Discuss the project's vehicle-related emissions effect on air quality. Identify measures (e.g. traffic operational improvements, diesel idling minimization plan) that will be taken to minimize or mitigate vehicle-related emissions.***

Approximately 10 to 15 vehicles are anticipated to enter the site every hour. Vehicles accessing the site would park, resulting in minimal idling. This would not lead to a high concentration of air pollutants. The proposed Project would generate minimal traffic during the operating season from May to October. Therefore, vehicles emissions resulting from the proposed Project would be negligible.

- c. ***Dust and odors - Describe sources, characteristics, duration, quantities, and intensity of dust and odors generated during project construction and operation. (Fugitive dust may be discussed under item 16a). Discuss the effect of dust and odors in the vicinity of the project including nearby sensitive receptors and quality of life. Identify measures that will be taken to minimize or mitigate the effects of dust and odors.***

The proposed Project is not anticipated to produce dust or odors during its operation. Minimal temporary dust and odors would be generated during construction. Potential temporary odors may be associated with exhaust from diesel engines, fuel storage, and paving of parking areas. Temporary dust and odor impacts would be limited to the areas immediately adjacent to construction activities and equipment. The majority of the surrounding land uses consist of agricultural and vacant land. The closest sensitive receptors would include rural residences west of 3rd Street NE and north of CSAH 40. Given that few sensitive receptors are located near the site, temporary dust and odor generated during construction would result in minimal impacts.

Every effort possible would be made to minimize the dust generated during construction of the proposed Project. For dust, water would be used as a dust controller if needed within the site and highly traveled routes. It is the intention of the Proposer that once the site is graded, highly used travel routes would be paved, eliminating most of the dust. No offensive or dangerous odors would be emitted as a result of the proposed Project.

18. Greenhouse Gas (GHG) Emissions/Carbon Footprint

- a. **GHG Quantification:** For all proposed projects, provide quantification and discussion of project GHG emissions. Include additional rows in the tables as necessary to provide project-specific emission sources. Describe the methods used to quantify emissions. If calculation methods are not readily available to quantify GHG emissions for a source, describe the process used to come to that conclusion and any GHG emission sources not included in the total calculation.

The GHG emissions for the proposed project are calculated using the Simplified Greenhouse Gas Emissions Calculator (SGEC) tool and are based on the methodologies for developing a carbon footprint described in Minnesota Environmental Quality Board's (EQB's) Revised EAW Guidance (January 2022). Table 15 shows the emission categories for project carbon footprint calculations, as provided in the EQB Guidance.

Table 15. Emissions Categories for Carbon Footprint

Category	Scope	Project Phase	Type of Emissions
Direct Emissions	Scope 1	Operations	Combustion (Stationary, Area, Mobile Sources)
	Scope 1	Operations	Non-Combustion Processes
	Scope 1	Construction	Combustion (Mobile Sources)
	Scope 1	Construction	Land-Use
Indirect Emissions	Scope 2	Operations	Off-site Electricity/Steam Production (Market-Based and Location-Based)
	Scope 3	Operations	Off-site Waste Management
Atmospheric Removal of GHGs	Scope 1 (Sinks)	Construction/Operations	Land-Use (CO ₂ removals to terrestrial storage)

For the Tepetonka Golf Course project, the GHG emission sources include:

- Construction emissions from mobile on-road and offroad sources
- Operational emissions from mobile on-road sources
- Operational emissions from stationary combustion (building heat)
- Operational emissions from off-site electricity production

The change in land use from an inactive agricultural area to the golf course is not expected to have a significant effect on carbon removal. The planned restoration of native prairie grasses outside the active play area, restoration of wetlands from past land use drainage, vegetation enhancements, streambank restoration and replacement of invasive species such as the smooth broom grass with native or naturalized turf species will offset the loss of carbon sequestration associated with the golf course construction.

A description of the carbon footprint associated with the Project is provided below.

Construction Emissions

GHG emissions from construction are associated with fuel combustion in the mobile construction equipment and on-road vehicles. The planned construction schedule would be initiated in fall 2023 and consist of infrastructure improvements. Course construction would commence in spring 2024 and completed in fall 2024 (approximately 6 months). Construction of the lodge and cabins would extend into 2025. For on-road vehicles (commuting construction workers, dump trucks and semi-trucks), emissions are calculated by estimating the number of vehicles, miles traveled, gallons of fuel used (using default mileage rates), and emission factors from the U.S. EPA's Emission Factors Hub (<https://www.epa.gov/climateleadership/ghg-emission-factors-hub>, updated April 2022).

For off-road vehicles, the quantity and horsepower of cranes, backhoes, loaders, bulldozers, excavators, and skid steers was estimated based on similar projects. The default fuel consumption rate of 0.05 gallons per horsepower-hour⁴⁶ is used to determine the fuel usage for all equipment. Similar to the on-road vehicles, emission factors from the Emission Factors Hub are used to calculate GHG emissions.

Per EQB's Revised EAW Guidance, construction emissions are divided by the lifetime of the project, estimated to be 50 years.

Operational Emissions – Mobile Sources

As described in the Transportation Impacts Section of the EAW, the proposed Project is expected to generate up to 106 vehicle trips per day. This daily total consists of 80 member trips, 20 employee trips and six delivery trips. GHG emissions associated with these trips are calculated using the Emission Factors Hub and assuming six months of operation of the course (May to October) annually.

Operational Emissions – Stationary Combustion

The projected natural gas usage for the buildings associated with the Project is estimated using the U.S. Energy Information Administration's Commercial Buildings Energy Consumption Survey (CBECS, 2012 – released May 2016). The CBECS provides natural gas intensities in standard cubic feet per square foot per year for several different building activity categories.

Natural gas combustion GHG emissions are calculated for the lodge building and cabins, and clubhouse using emission factors from the Emission Factors Hub. The comfort station will feature an electric wall unit heater. GHG emissions from that building are accounted for in the electricity usage (see below).

Operational Emissions – Offsite Electricity Production

Similar to natural gas usage, electricity needs for the proposed buildings are estimated using the CBECS, which provides electricity usage intensity in kilowatt-hours per square foot of building space. GHG emissions occur offsite (Scope 2) when the electricity is generated. The SGEN tool calculates GHG emissions from electricity generation on a regional basis (defined by U.S. EPA using data from the EIA and the North American Electric Reliability Corporation (NERC))⁴⁷, using average emission factors based on the mix of fuels used to generate the electricity in each region. For this project, the Midwest Reliability Organization West (MROW) region is used. The electricity generation in MROW is comprised of approximately 50 percent fossil fuels (coal and natural gas), 9 percent nuclear and approximately 40 percent renewables (hydro, wind, and solar).

⁴⁶ Based on South Coast Air Quality Management District CEQA Air Quality Handbook, Table A9-3E.

⁴⁷ <https://www.epa.gov/egrid>

GHG Emissions Summary

A summary of GHG emissions from mobile sources at the mine are provided in Table 16. Emissions are presented in tons per year of carbon dioxide equivalent, which takes into account each GHG's global warming potential (GWP). GHG emission calculations conservatively assumed that the golf course and associated facilities would operate year-round. As described in Item 6 (Project Description), the golf course is planned to operate May through October.

Table 16. GHG Emissions Summary (CO₂e in short tons per year)

Scope	Source	GHG Emissions (ton/yr of CO ₂ e)
Direct Emissions		
Scope 1	Construction – Mobile Sources	37
Scope 1	Operations – Stationary Combustion (Natural Gas)	126
Scope 1	Operations – Mobile Sources	553
Indirect Emissions		
Scope 2	Operations – Purchased Electricity	351
Total		1,066

b. GHG Assessment

i. Describe any mitigation considered to reduce the project's GHG emissions.

As stated earlier in the EAW, the goal of the golf course designers is to be stewards of the land and Shakopee Creek. The following activities will help mitigate the project's GHG emissions:

- Minimize grading, incorporating existing topography into the course design.
- Elimination of invasive species and replacing with native grasses and plants.
- Keeping as many cedar trees as possible.
- Trees that are removed would be stockpiled and used as “toewood” in the restoration of streambanks.
- Surface water will be collected in an irrigation pond and the water reused for course irrigation.
- Scheduling irrigation based on data from an on-site weather station and soil moisture monitors.
- Utilizing best management practices (BMPs) for turf maintenance to conserve water, preserve water quality, limit pesticide and fertilizer applications and habitat management.
- Re-use of the steel barn on the property associated with Parcel ID 23-013-0030; 1155 Co Rd 40 NE as Hoggies Hang.
- Re-use of an existing house on the property associated with Parcel ID 23-013-0030; 1155 Co Rd 40 NE as office and staff housing.

Additional mitigation considerations may include the following:

- Energy efficient lighting in buildings and parking lots.
- Use of energy efficient building materials.
- Installation of energy efficient appliances, windows and heating, ventilation and air conditioning (HVAC) units.

ii. Describe and quantify reductions from selected mitigation, if proposed to reduce the project's GHG emissions. Explain why the selected mitigation was preferred.

The mitigation measures above will help offset the GHG emissions from the Project. The project's GHG emissions (without mitigation) are conservatively estimated to be those presented in Table 16.

iii. Describe and quantify reductions from selected mitigation, if proposed to reduce the project's GHG emissions. Explain why the selected mitigation was preferred.

The golf course lifetime is estimated at 50 years. Thus, the lifetime emissions associated with the proposed Project are approximately 1,066 tons per year during construction (2023-2025), and approximately 1,029 tons per year for the remaining lifetime of the proposed Project. The estimated greenhouse gas emissions do not take into consideration activities that would mitigate GHG emissions, which were not quantified as part of this analysis. This conservative estimate would be offset by the mitigation measures noted above and represents a very small amount when compared to state-wide GHG emissions. The proposed Project's GHG emissions would have minimal effect on the State of Minnesota's or the local area's GHG reduction goals.

19. Noise

Describe sources, characteristics, duration, quantities, and intensity of noise generated during project construction and operation. Discuss the effect of noise in the vicinity of the project including 1) existing noise levels/sources in the area, 2) nearby sensitive receptors, 3) conformance to state noise standards, and 4) quality of life. Identify measures that will be taken to minimize or mitigate the effects of noise.

1) Existing noise levels/sources in the area

Existing noise sources include vehicle traffic along CSAH 40, U.S. Highway 71 (U.S. 71, 25th Street NE), and other adjacent roadways.

2) Nearby sensitive receptors

The majority of land adjacent the site consists of rural agricultural and vacant land. A few rural residences are located west of 3rd Street NE and north of CSAH 40.

3) Conformance to state noise standards

The proposed Project would minimize noise disturbances caused by the construction of the proposed Project to the extent possible and would adhere to the noise regulations outlined in Minnesota State Statute 7030.0030 and local noise ordinance requirements.

4) Quality of life

Construction of the proposed Project would temporarily result in elevated noise levels. No construction or operation hours would occur during nighttime hours. Construction equipment would be properly muffled and maintained in working order. The proposed Project is not anticipated to affect the quality of life for rural residences in the vicinity of the site. The proposed Project would be required to adhere to State and local noise regulations.

Operation of the golf course would result in minimal noise. Restriction on noise levels for visitors at the

lodging facilities would adhere to local noise regulations.

20. Transportation

- a. Describe traffic-related aspects of project construction and operation. Include: 1) existing and proposed additional parking spaces, 2) estimated total average daily traffic generated, 3) estimated maximum peak hour traffic generated and time of occurrence, 4) indicate source of trip generation rates used in the estimates, and 5) availability of transit and/or other alternative transportation modes.**

1) Existing and proposed additional parking spaces

The existing site consists of vacant agricultural land. No formal parking areas are present. The proposed Project would construct approximately 60 parking spaces primarily near the clubhouse, lodge, and cabins to serve visitors and staff. The majority of guest parking would be located near the cart barn. Golf cart parking would be located by the lodge and clubhouse.

2) Estimated total average daily traffic generated

The proposed Project would operate from 7:30 a.m. to 9:00 p.m. each day from May through October. The proposed Project is expected to generate 106 trips per day. The daily total consists of 80 member trips, 20 employee trips, and six delivery trips.

3) Estimated maximum peak hour traffic generated and time of occurrence

The maximum peak hour traffic generated by the proposed Project is anticipated to be 32 trips during a.m. peak hour (7:30-8:30 a.m.).

4) Indicate source of trip generation rates used in the estimates

The Proposer provided anticipated visitor and staff information to generate trip estimates resulting from the proposed Project.

5) Availability of transit and/or other alternative transportation modes

No existing transit and/or other alternative transportation facilities are available within the vicinity of the site.

- b. Discuss the effect on traffic congestion on affected roads and describe any traffic improvements necessary. The analysis must discuss the project's impact on the regional transportation system. If the peak hour traffic generated exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic impact study must be prepared as part of the EAW. Use the format and procedures described in the Minnesota Department of Transportation's Access Management Manual, Chapter 5 (available at: <http://www.dot.state.mn.us/accessmanagement/resources.html>) or a similar local guidance.**

Primary access to the site would be provided at three locations along CSAH 40, west of U.S. 71. Additionally, a maintenance entrance would be located from 3rd Street NE. CSAH 40 is a two-lane, undivided rural section roadway that extends west from New London. Information from the Minnesota Department of Transportation (MnDOT)⁴⁸ indicates a year 2022 average annual daily traffic (AADT)

⁴⁸ MnDOT. Traffic Mapping Application. Year 2022 Draft AADT Volumes. Accessed August 2022.
<https://mndot.maps.arcgis.com/apps/webappviewer/index.html?id=7b3be07daed84e7fa170a91059ce63bb>

volume of 1,221 on CSAH 40. U.S. 71 is a two-lane, undivided rural section roadway that extends north to south, east of the site. The year 2022 AADT on U.S. 71 is 3,640.

The increase in traffic from the site is not expected to result in significant changes in traffic operations on the surrounding roadway system. CSAH 40 is expected to have adequate capacity to accommodate the peak hour and daily trip generation. Improvements to the regional transportation system are not necessary to accommodate the proposed project. A traffic impact study was not completed because less than 250 peak hour and 2,500 daily trips are generated by the project.

c. Identify measures that will be taken to minimize or mitigate project related transportation effects.

Due to the limited amount of traffic related to the proposed project, traffic improvements or mitigation are not required.

21. Cumulative Potential Effects

(Preparers can leave this item blank if cumulative potential effects are addressed under the applicable EAW Items)

a. Describe the geographic scales and timeframes of the project related environmental effects that could combine with other environmental effects resulting in cumulative potential effects.

It is anticipated that the proposed Project would be operational in 2024. Other projects in the surrounding area that are known to be in construction, operation, or planned were considered in the cumulative potential effects.

b. Describe any reasonably foreseeable future projects (for which a basis of expectation has been laid) that may interact with environmental effects of the proposed project within the geographic scales and timeframes identified above.

No reasonably foreseeable future projects are planned in close proximity to the proposed Project. Land adjacent to the proposed Project is within a USFWS Wetland Easement and conservation easements, and is not anticipated to be developed in the foreseeable future. The potential for other vacant/agricultural land to be developed in the foreseeable future cannot be reasonably anticipated at this time.

c. Discuss the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects.

Other development projects may be proposed in the vicinity of the site; however, no reasonably foreseeable development projects are known at this time. Any future proposed development projects would be required to obtain local permits through Kandiyohi County and subject to any State or federal permitting requirements as applicable. If required, any other future development projects would be required to complete an environmental review per Minnesota Environmental Policy Act (MEPA) requirements. Possible cumulative potential effects as a result of the proposed Project may occur to water resources and could result in loss of agricultural land.

Water Resources

The proposed Project would convert vacant/agricultural land into a golf course, which would increase impervious surface area and impact wetland resources. Additionally, the proposed Project would require

installation of water supply wells. The proposed Project would be required to minimize and mitigate wetland impacts. On-site wetland mitigation would be considered for wetland restoration opportunities located within the site and wetland banking would be used if on-site locations are not available and/or if agencies recommend the use of a wetland bank. Stormwater BMPs would be implemented to manage stormwater runoff generated by the proposed Project which may include a wet sedimentation basin, infiltration/filtration, regional ponding, or a combination of these practices. The Proposer would be required to obtain a DNR Water Appropriation Permit to construct a water supply well. It is anticipated that the proposed Project would include an irrigation pond.

Other proposed developments in the area resulting in the conversion of vacant/agricultural land would similarly increase the area of impervious surfaces. These future developments would be required to implement stormwater BMPs to mitigate stormwater runoff impacts in accordance with local and State approval and permitting requirements. The DNR regulates groundwater use through the issuance of water appropriation permit and would have the authority to review and approve any future development projects in the vicinity of the site. Therefore, adverse cumulative impacts to water quality and quantity are not anticipated.

Agricultural Land

The proposed Project would convert vacant agricultural land into a golf course. The site has not been actively used for agricultural purposes for several years. Other proposed development projects may result in the conversion of surrounding vacant and/or agricultural land. Kandiyohi County and the local townships guide development through comprehensive planning, local ordinances, and permitting requirements. The County and townships through their land use policies and zoning requirements, regulate future development and protect agricultural land from future development as appropriate.

22. Other Potential Environmental Effects

If the project may cause any additional environmental effects not addressed by items 1 to 19, describe the effects here, discuss the how the environment will be affected, and identify measures that will be taken to minimize and mitigate these effects.

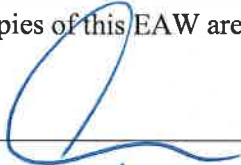
No other additional environmental effects are anticipated as a result of the proposed Project. Potential environmental effects have been addressed in Items 1 through 19.

RGU CERTIFICATION. *(The Environmental Quality Board will only accept **SIGNED** Environmental Assessment Worksheets for public notice in the EQB Monitor.)*

I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9c and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

Signature



Date

8/1/23

Title

Zoning Administrator

Appendix A

Figures

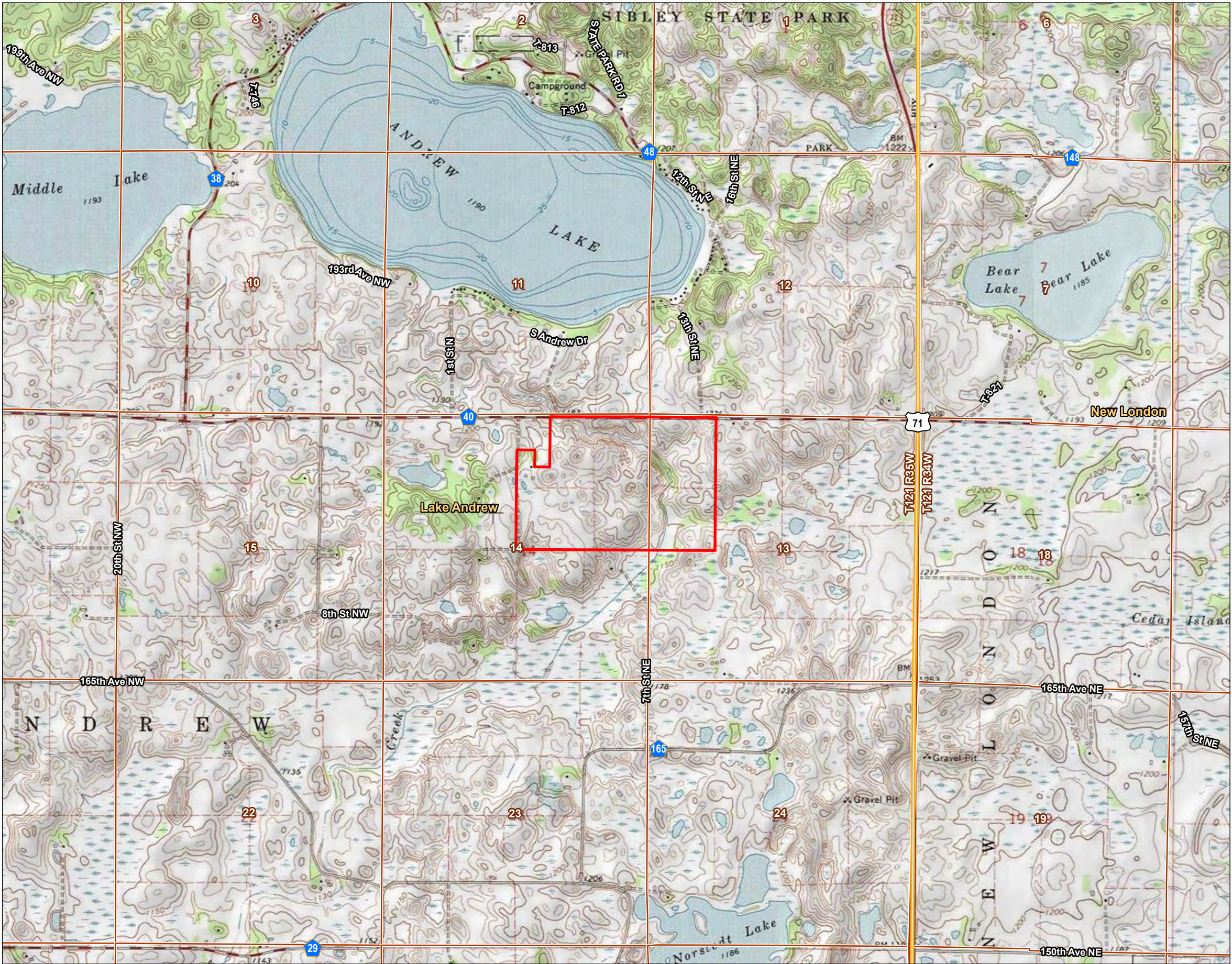
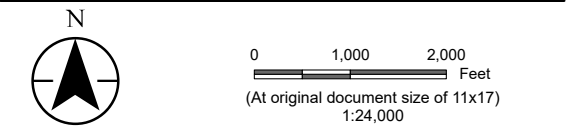
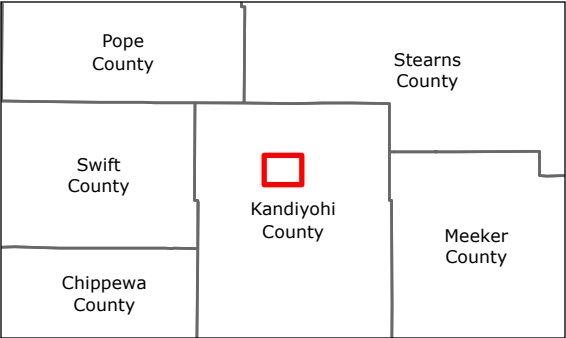


Figure No. 1
Title Project Location USGS Topo Map
Client/Project Tepetonka Club, LLC 227703504
EAW
Project Location T121N, R35W, S13, 14 Prepared by KJM on 2022-08-29
Lake Andrew, Kandiyohi Co., MN



- Legend
- Proposed Project Location
 - Municipal Boundary
 - Township, Range & Section Boundary



Notes
1. Coordinate System: NAD 1983 HARN Adj MN Kandiyohi Feet
2. Data Sources: Duinick, Tepetonka LLC, Kandiyohi County, MnGEO, MnDOT, USGS
3. Background: USGS Mount Tom 7.5 Minute Quadrangle





Figure No.
2

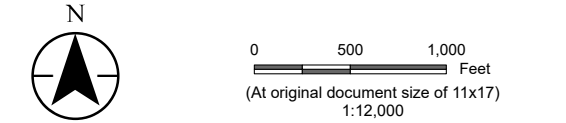
Title
Project Location Aerial Map

Client/Project
Tepetonka Club, LLC
EAW

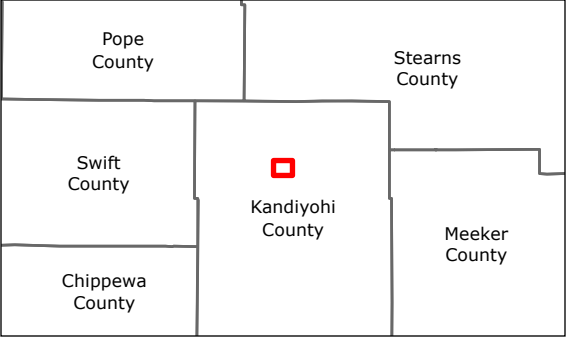
227703504

Project Location
T121N, R35W, S13, 14
Lake Andrew, Kandiyohi Co., MN

Prepared by KJM on 2023-06-13



- Legend
- Proposed Project Location
 - Project Parcels
 - MnDNR - Management Units
 - State Parks
 - State Trail



Notes

1. Coordinate System: NAD 1983 HARN Adj MN Kandiyohi Feet

2. Data Sources: Duinick, Tepetonka LLC, Kandiyohi County, MnGEO, MnDOT, MnDNR

3. Background: 2020 Kandiyohi Pictometry



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Figure No.
2b

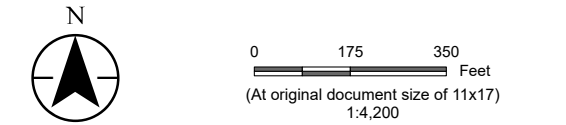
Title
Project Location - Historic Aerial

Client/Project
Tepetonka Club, LLC
EAW

227703504

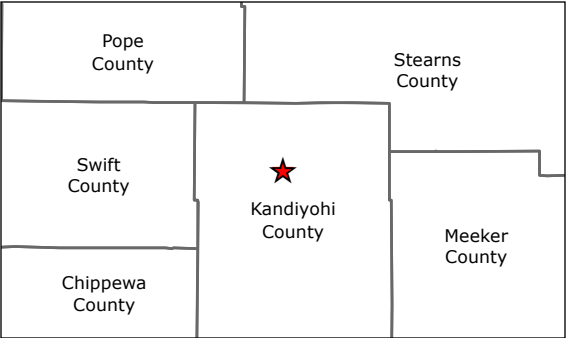
Project Location
T121N, R35W, S13,14
Lake Andrew, Kandiyohi Co., MN

Prepared by KJM on 2022-08-29



Legend

Proposed Project Location



Notes

1. Coordinate System: NAD 1983 HARN Adj MN Kandiyohi Feet
2. Data Sources: Duinick, Tepetonka LLC, Kandiyohi County, MN GEO, MHAPO, FSA
3. Background: MHAPO 1938 Aerial Photograph



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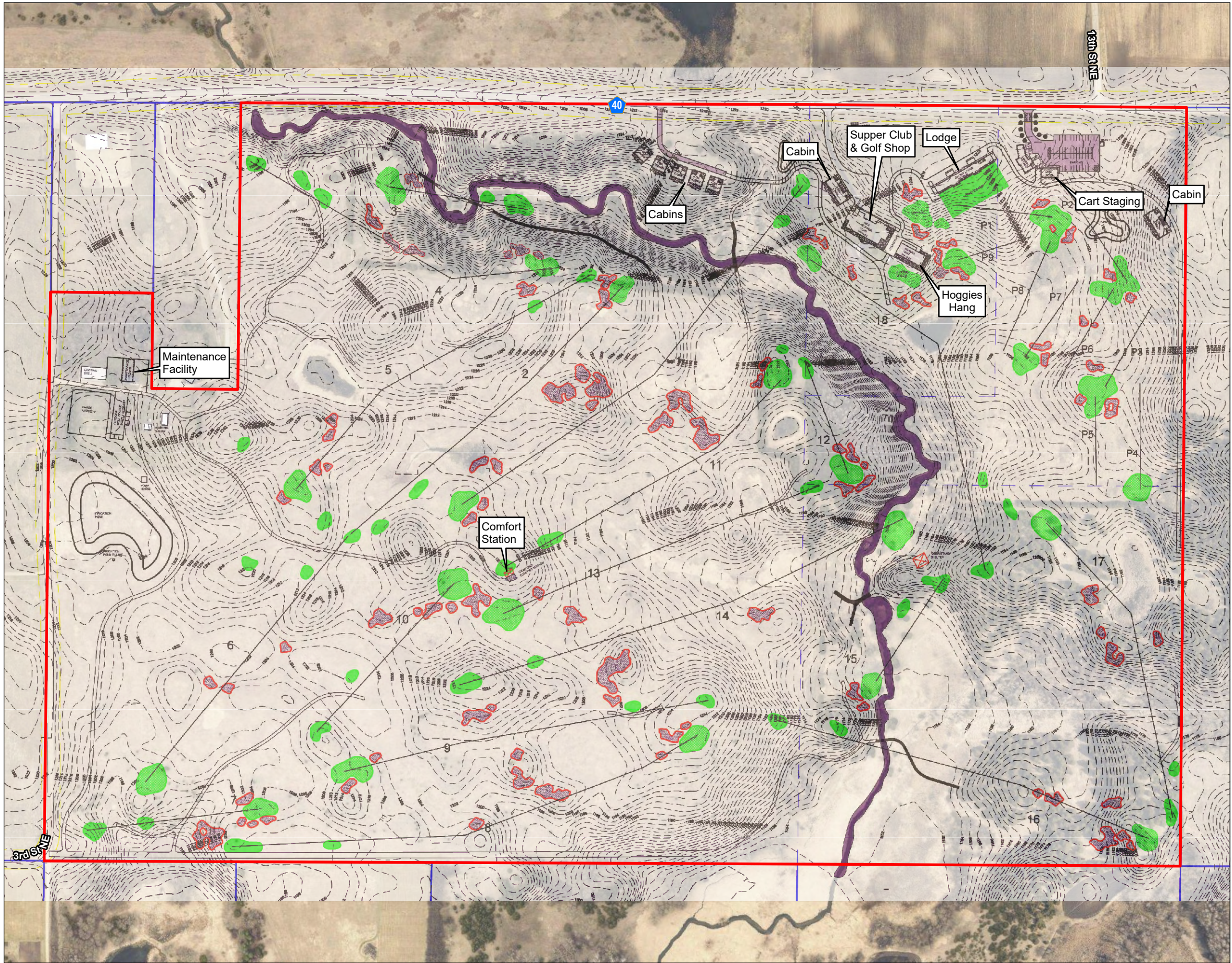


Figure No.

3

Title

Project Layout

Client/Project

Tepetonka Club, LLC
EAW

227703504

Project Location

T121N, R35W, S13,14
Lake Andrew, Kandiyohi Co., MN

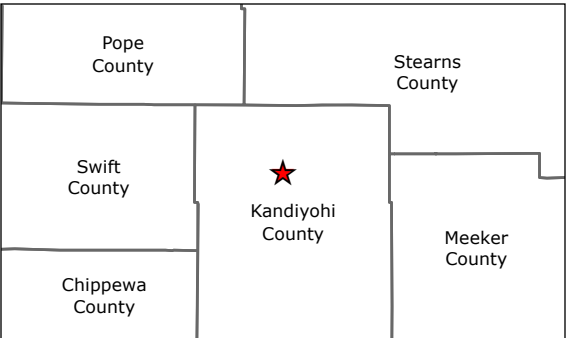
Prepared by KJM on 2023-07-06



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Legend

Proposed Project Location



Notes

1. Coordinate System: NAD 1983 HARN Adj MN Kandiyohi Feet
2. Data Sources: Duinick, Tepetonka LLC, Kandiyohi County
3. Background: 2020 Kandiyohi Pictometry



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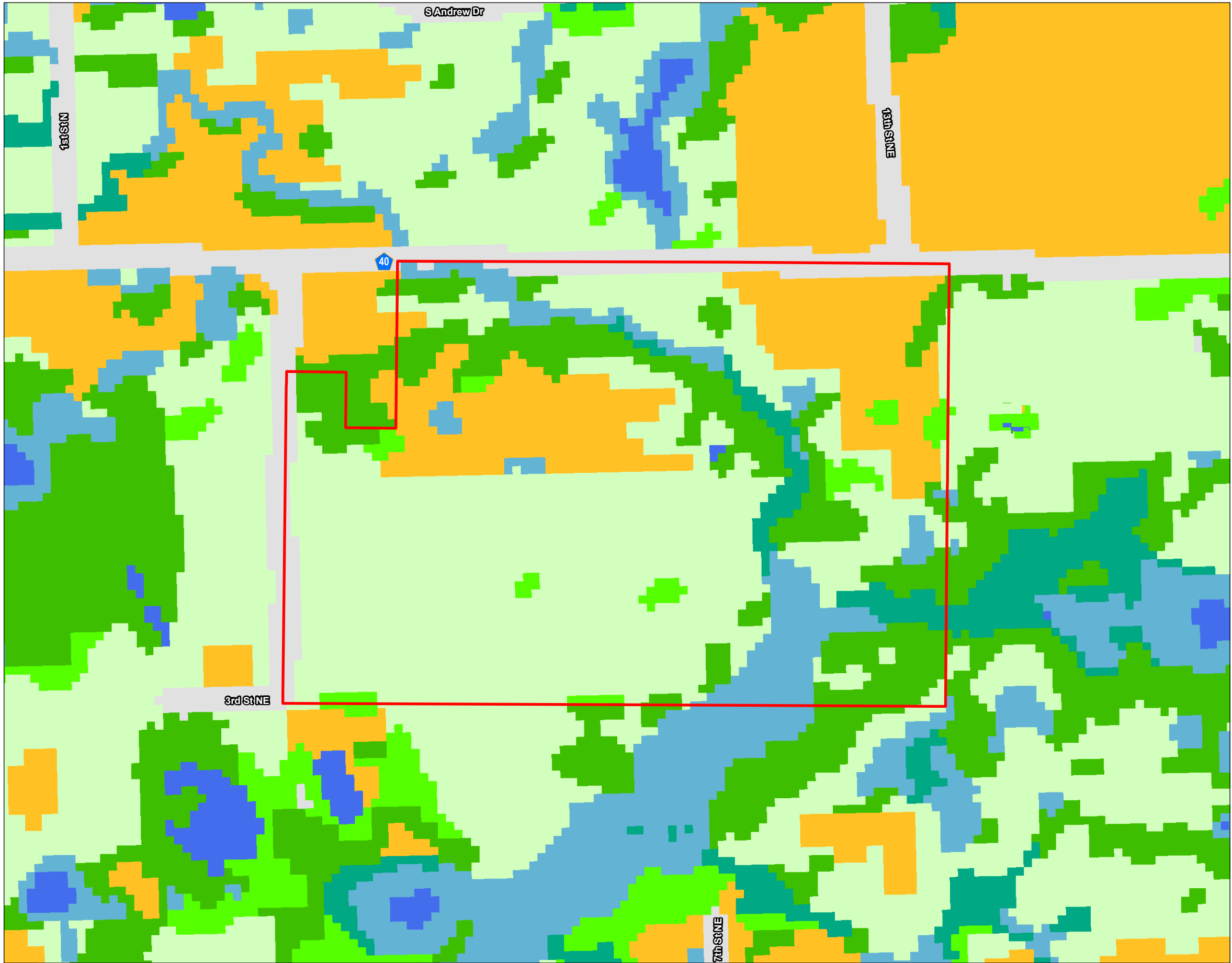


Figure No.
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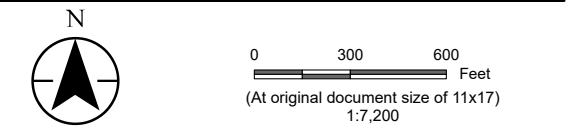
Title
Land Cover

Client/Project
Tepetonka Club, LLC
EAW

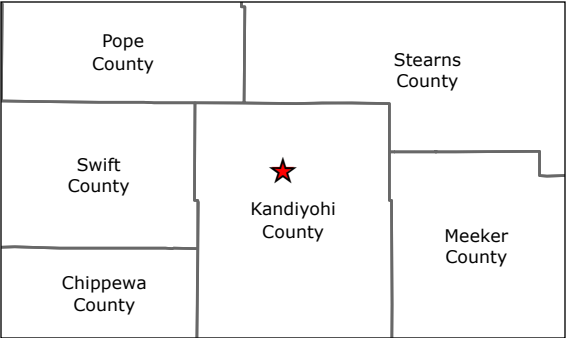
227703504

Project Location
T121N, R35W, S13,14
Lake Andrew, Kandiyohi Co., MN

Prepared by KJM on 2022-08-29



- Legend
- Proposed Project Location
 - Minnesota Land Cover Classification
2013-2014 Update
 - Impervious Surface
 - Emergent Wetlands
 - Forested and Shrub Wetlands
 - Open Water
 - Coniferous Forest
 - Deciduous Forest
 - Managed Grass and Natural Grass
 - Row Crops



Notes

1. Coordinate System: NAD 1983 HARN Adj MN Kandiyohi Feet
2. Data Sources: Duinick, Tepetonka LLC, Kandiyohi County, UMN
3. Background: 2020 Kandiyohi Pictometry



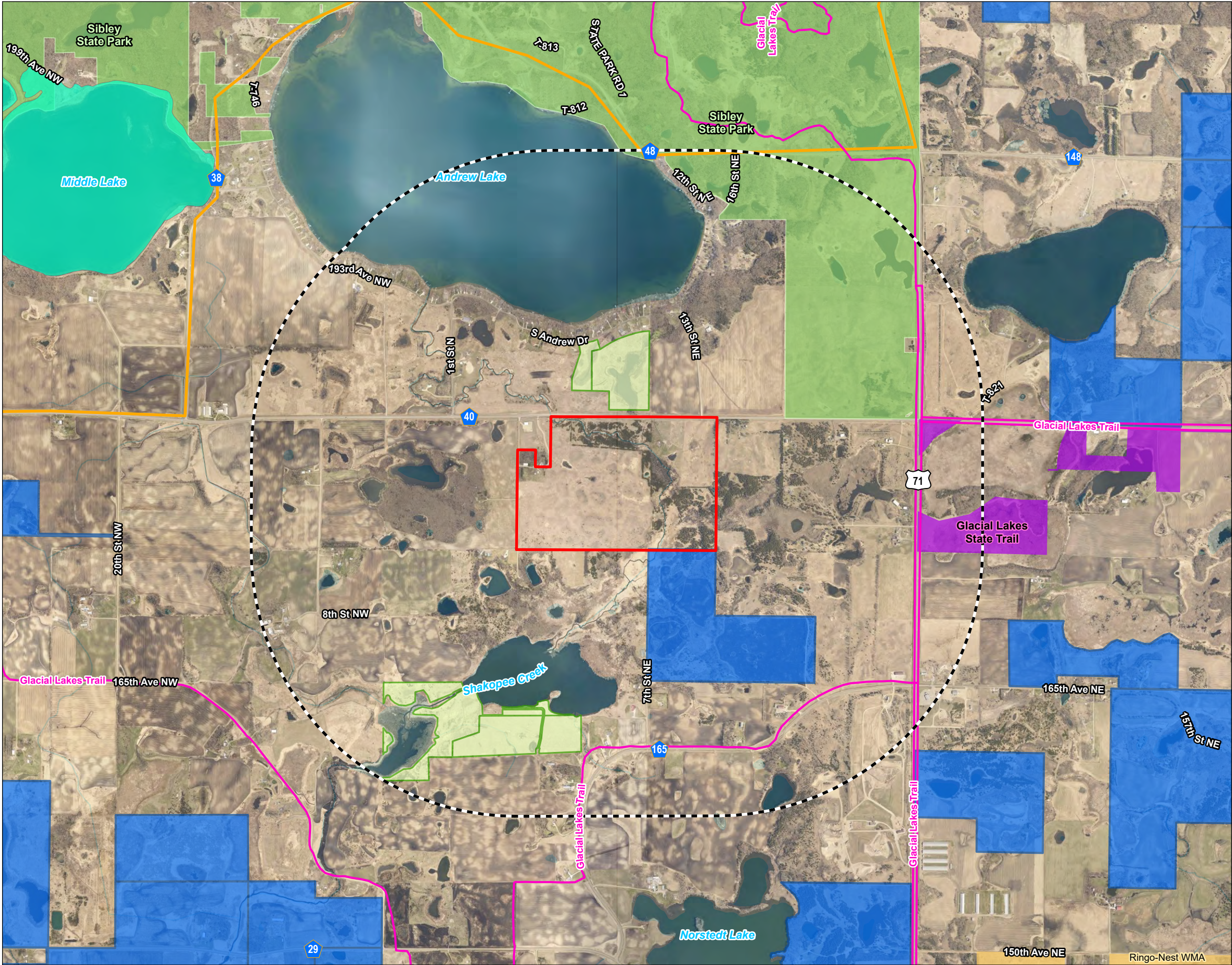
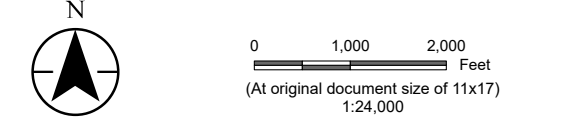


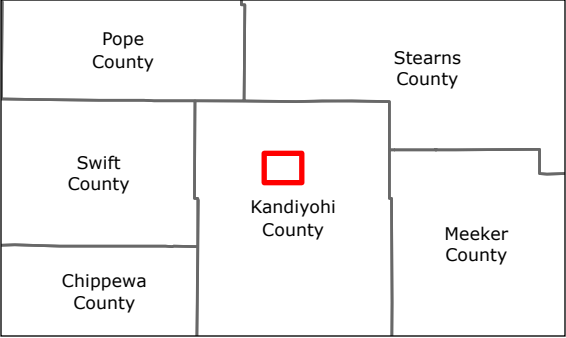
Figure No. **5**
Title **Protected Areas and Trails**

Client/Project **Tepetonka Club, LLC**
EAW

Project Location **T121N, R35W, S13, 14**
Lake Andrew, Kandiyohi Co., MN



- Legend**
- Proposed Project Location
 - Snowmobile Trail
 - Glacial Ridge Trail (Automotive)
 - Designated Wildlife Lakes
 - MnDNR - Management Units
 - State Parks
 - Wildlife Management Area - WMA
 - State Trail
 - USGS Protected Area Database (3.0)
 - Wetland Easement / Waterfowl Production Area
 - Minnesota Board of Water and Soil Resources
 - Reinvest in Minnesota (RIM) Conservation Easement



Notes
1. Coordinate System: NAD 1983 HARN Adj MN Kandiyohi Feet
2. Data Sources: Duinink, Tepetonka LLC, Kandiyohi County, MnGEO, MnDOT, MnDNR, BWSR, USGS
3. Background: 2020 Kandiyohi Pictometry



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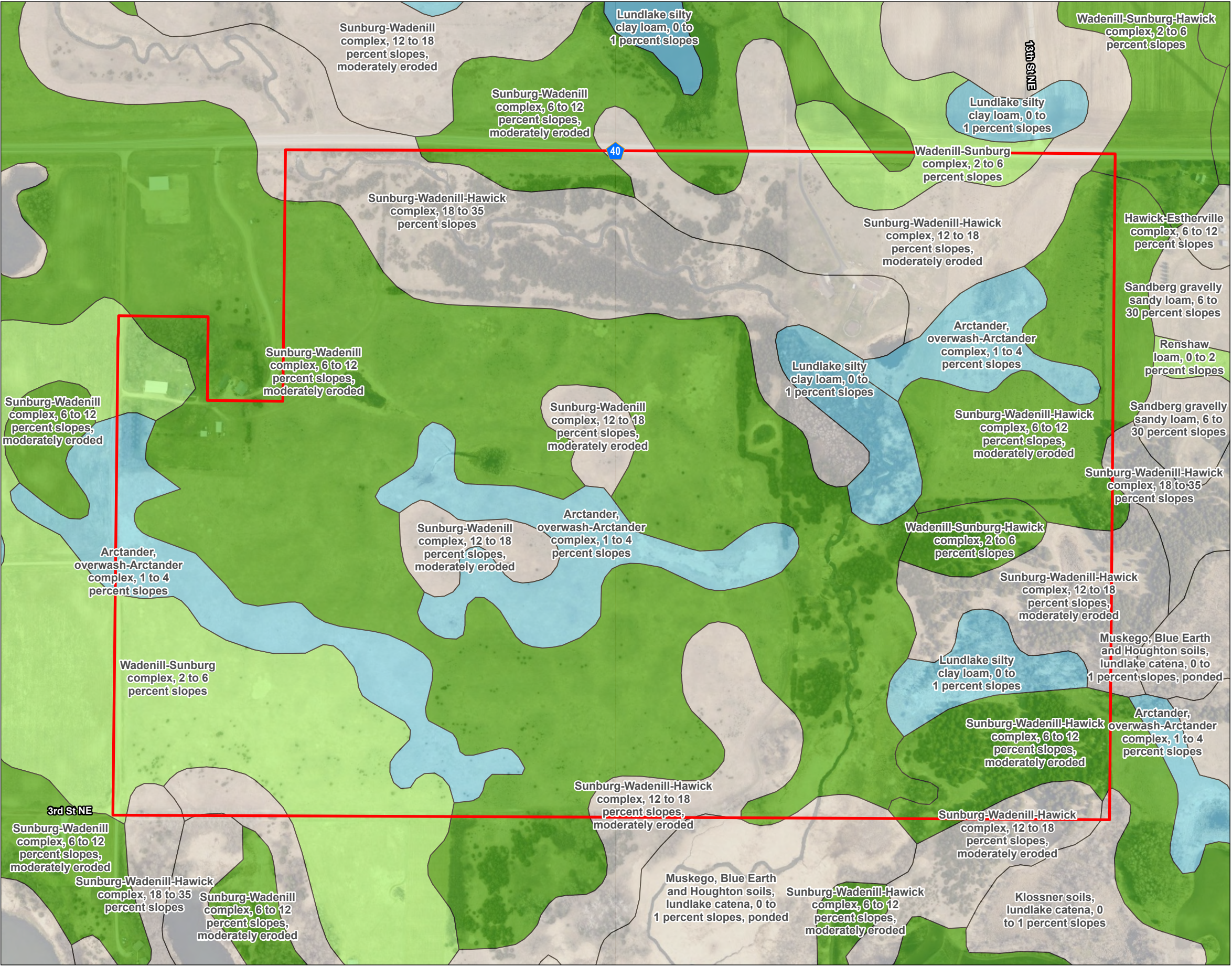


Figure No. **6**

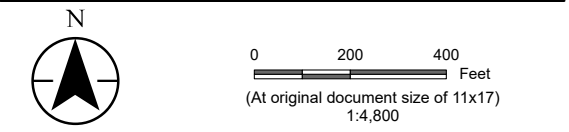
Title **Farmland and Soils Classification**

Client/Project **Tepetonka Club, LLC** 227703504

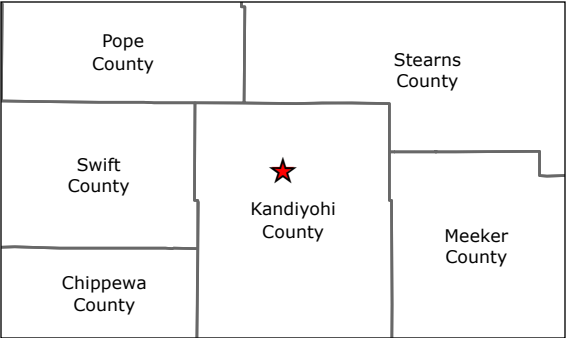
EAW

Project Location **T121N, R35W, S13, 14** Prepared by KJM on 2022-08-29

Lake Andrew, Kandiyohi Co., MN



- Legend
- Proposed Project Location
 - Farmland Class**
 - All areas are prime farmland
 - Farmland of statewide importance
 - Not prime farmland
 - Prime farmland if drained



Notes

1. Coordinate System: NAD 1983 HARN Adj MN Kandiyohi Feet
2. Data Sources: Duinick, Tepetonka LLC, Kandiyohi County, MnDOT, NRCS
3. Background: 2020 Kandiyohi Pictometry



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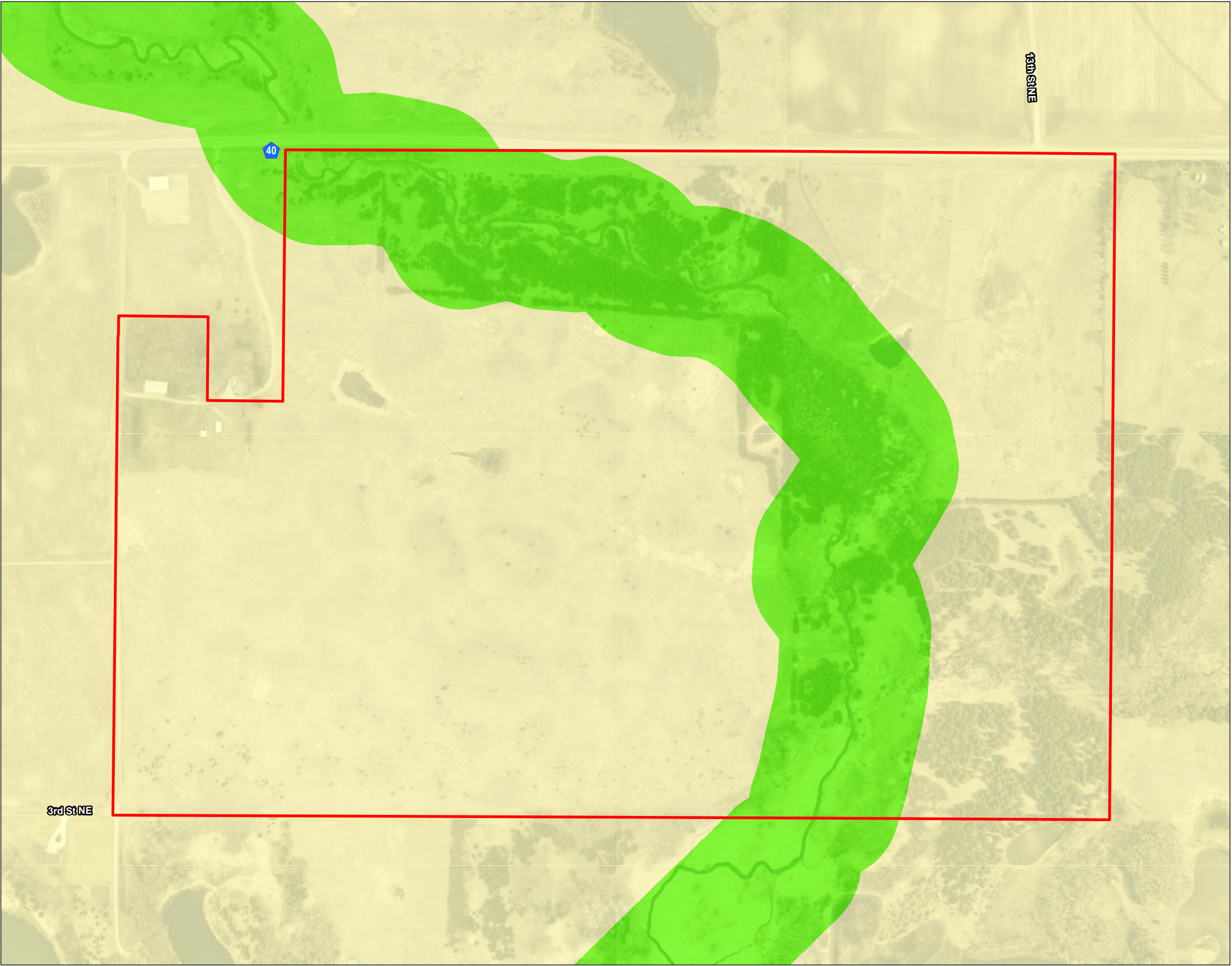


Figure No.
7

Title
Zoning Map

Client/Project
Tepetonka Club, LLC
EAW

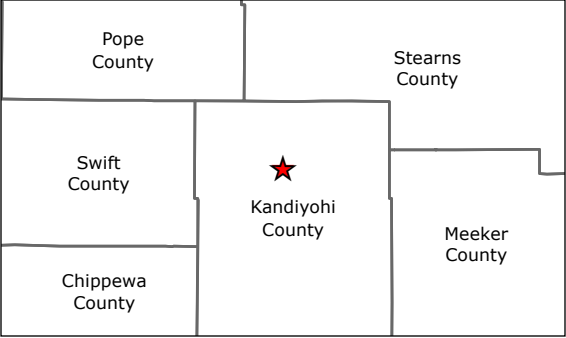
227703504

Project Location
T121N, R35W, S13,14
Lake Andrew, Kandiyohi Co., MN

Prepared by KJM on 2022-08-29



- Legend
- Proposed Project Location
 - County Zoning
 - A-2 General Ag
 - R-M Resource Management



Notes

1. Coordinate System: NAD 1983 HARN Adj MN Kandiyohi Feet
2. Data Sources: Duinick, Tepetonka LLC, Kandiyohi County, MnDOT
3. Background: 2020 Kandiyohi Pictometry



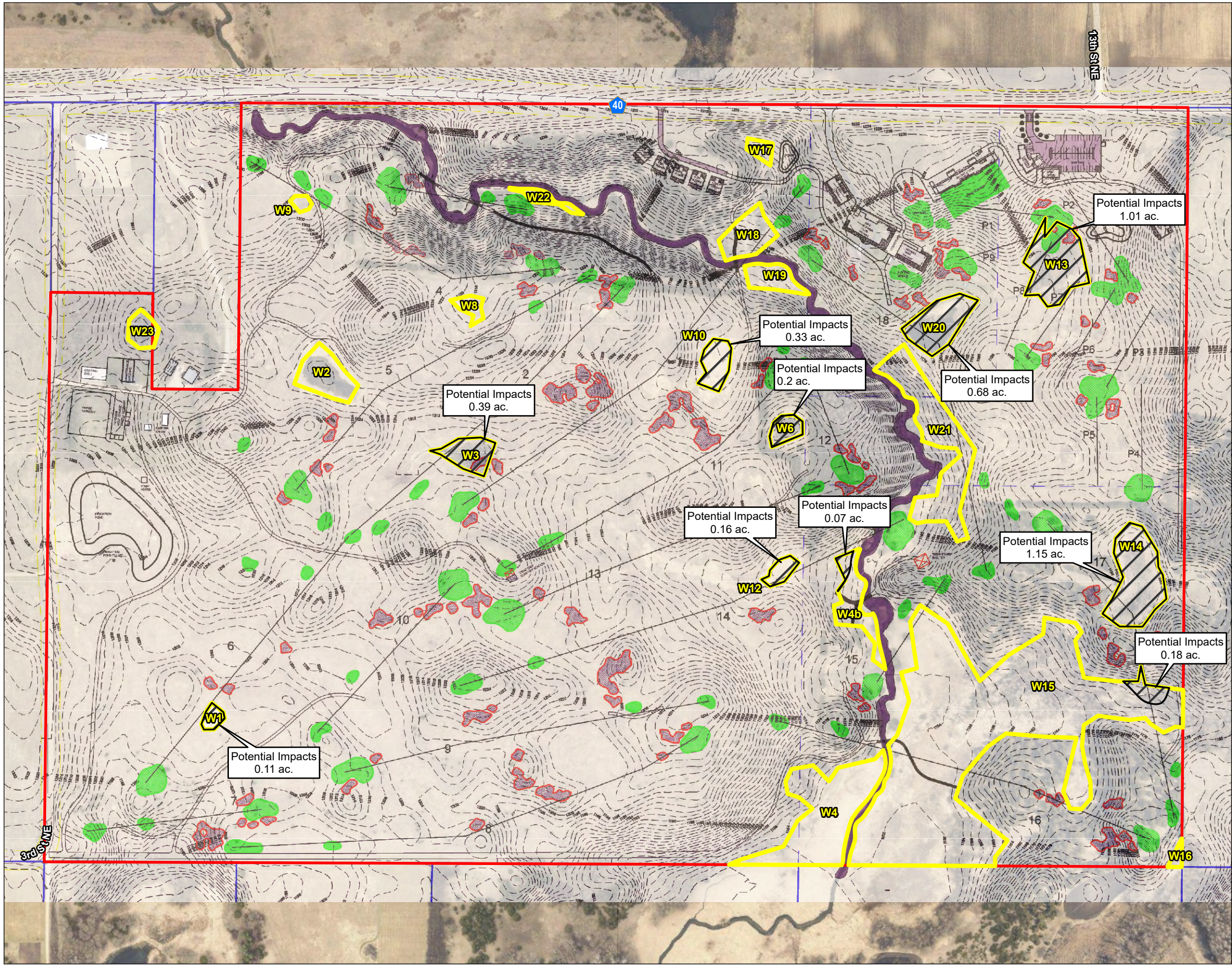
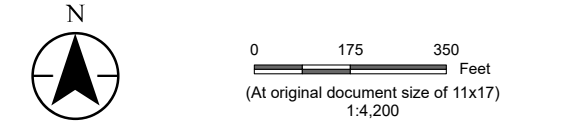


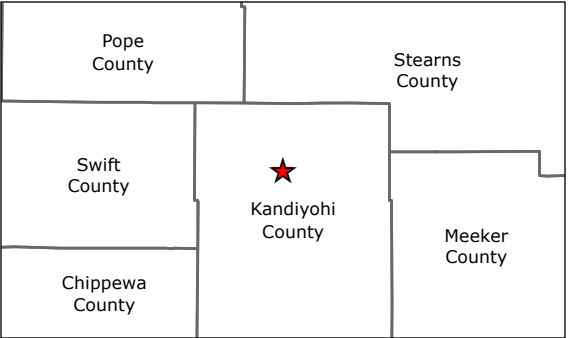
Figure No.
9
Title
Potential Wetland Impacts

Client/Project
Tepetonka Club, LLC
EAW

Project Location
T121N, R35W, S13,14
Lake Andrew, Kandiyohi Co., MN



- Legend
- Proposed Project Location
 - Potential Wetland Impact
 - Field Delineated Wetland



Notes
1. Coordinate System: NAD 1983 HARN Adj MN Kandiyohi Feet
2. Data Sources: Duinick, Tepetonka LLC, Kandiyohi County
3. Background: 2020 Kandiyohi Pictometry



V:\2277\active\227703504\03_data\gis\proj\ewaw.aprx Revised: 2022-08-29 By: Jimueller

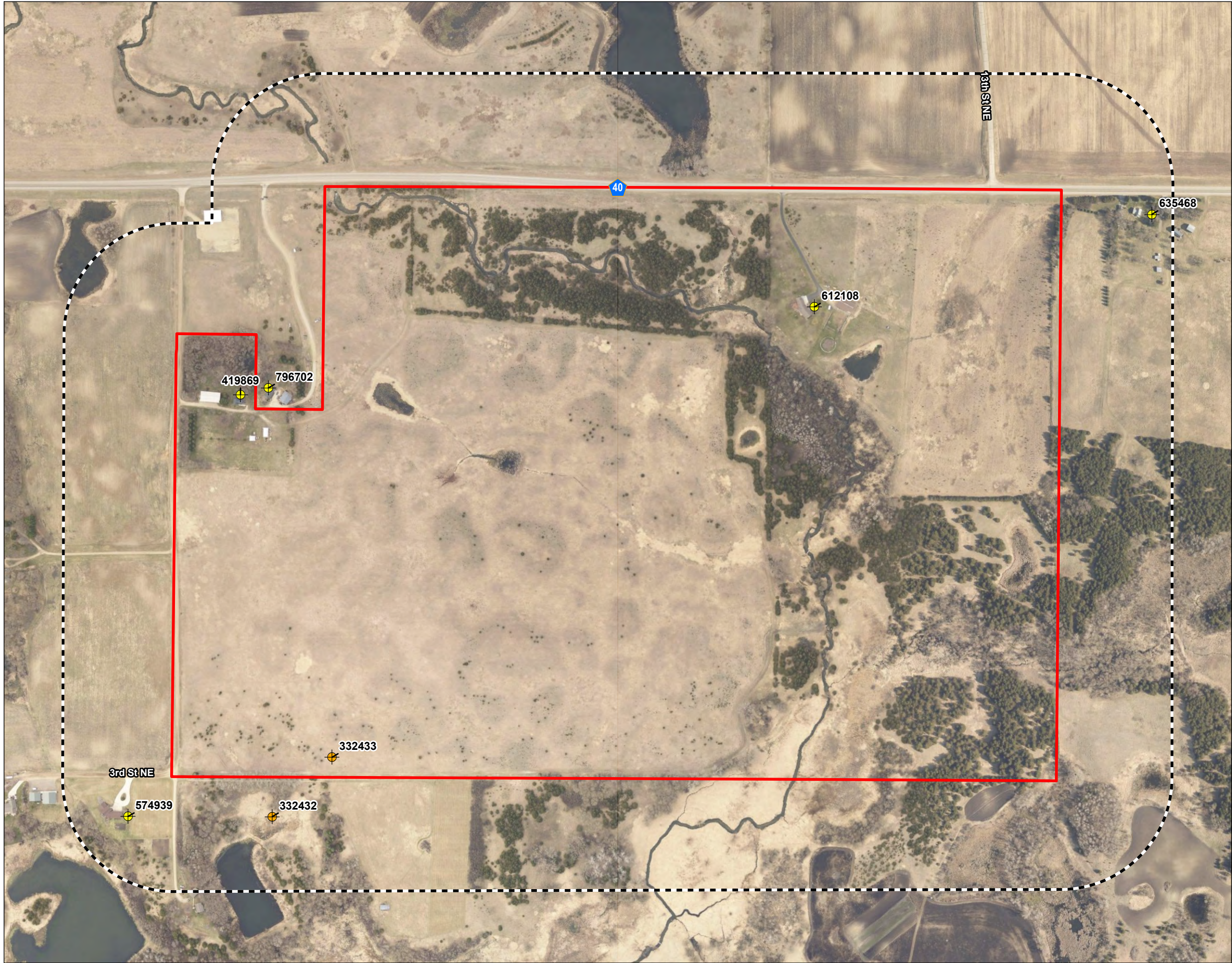


Figure No.
10

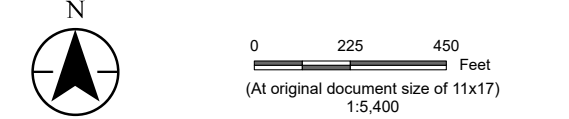
Title
County Well Index

Client/Project
Tepetonka Club, LLC
EAW

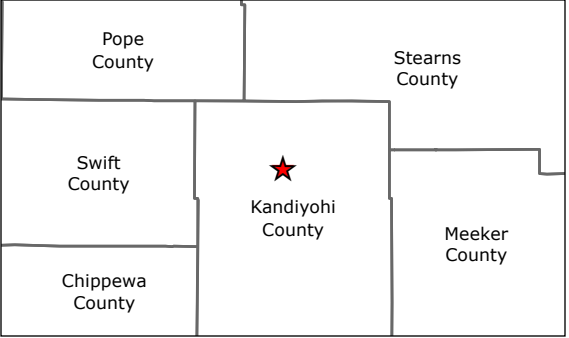
227703504

Project Location
T121N, R35W, S13, 14
Lake Andrew, Kandiyohi Co., MN

Prepared by KJM on 2022-08-29



- Legend
- County Well Index
- Field Verified
- Abandoned
 - Domestic
 - 500 ft Radius
 - Proposed Project Location



Notes

- Coordinate System: NAD 1983 HARN Adj MN Kandiyohi Feet
- Data Sources: Duinick, Tepetonka LLC, Kandiyohi County, MnGEO, MnDOT, MNDH
- Background: 2020 Kandiyohi Pictometry





Figure No.
11

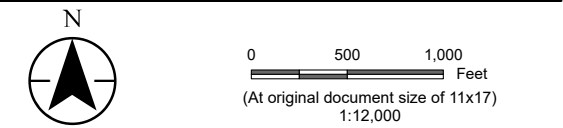
Title
MPCA WIMN Potentially Contaminated Sites

Client/Project
Tepetonka Club, LLC
EAW

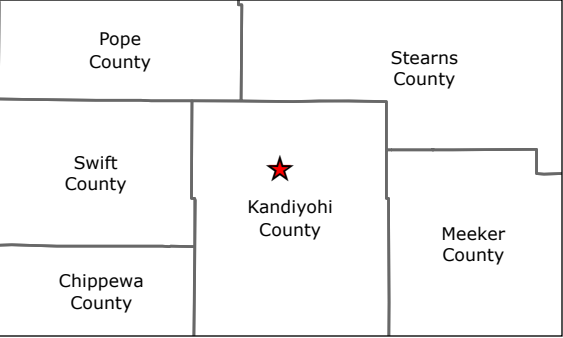
227703504

Project Location
T121N, R35W, S13, 14
Lake Andrew, Kandiyohi Co., MN

Prepared by KJM on 2022-08-29



- Legend
- MPCA Sites Program Name
- Feedlots
 - Hazardous Waste
 - Solid Waste
 - Stormwater
 - Tanks
 - 500 ft Radius
 - Proposed Project Location



Notes

- Coordinate System: NAD 1983 HARN Adj MN Kandiyohi Feet
- Data Sources: Duinick, Tepetonka LLC, Kandiyohi County, MnGEO, MnDOT, MPCA
- Background: 2020 Kandiyohi Pictometry



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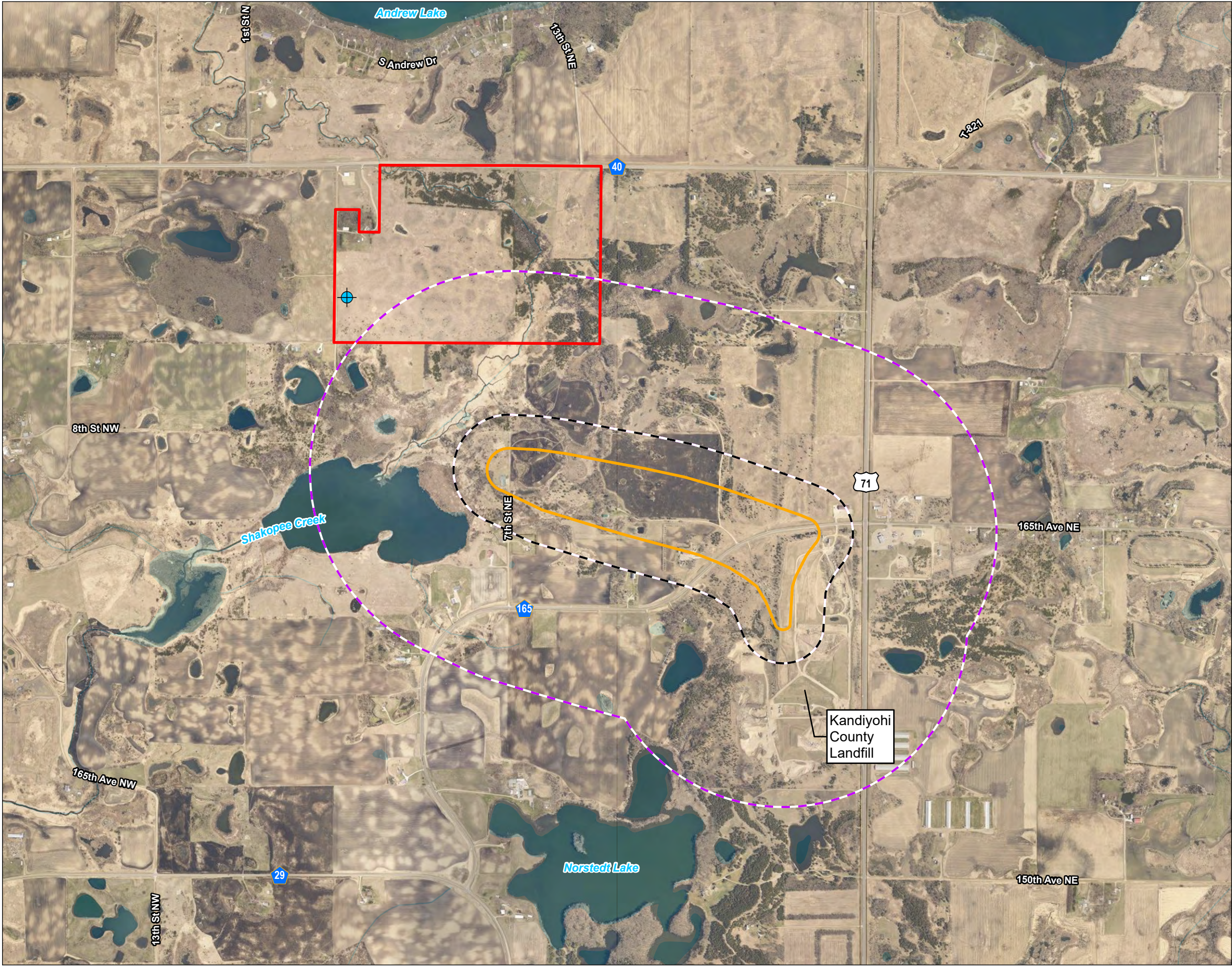


Figure No.
12

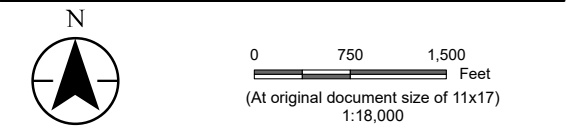
Title
**Contamination Plume and Proposed
Irrigation Well Location**

Client/Project
Tepetonka Club, LLC
EAW

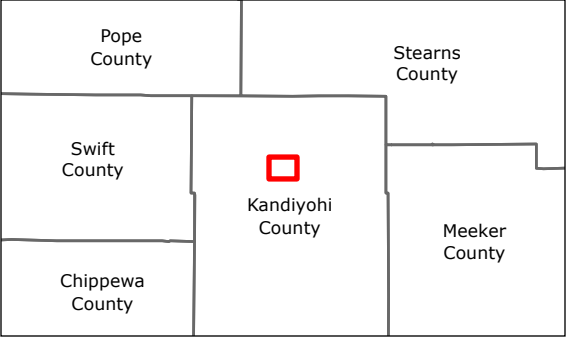
227703504

Project Location
T121N, R35W, S13, 14
Lake Andrew, Kandiyohi Co., MN

Prepared by KJM on 2023-06-14



- Legend
- Proposed Irrigation Well
 - Proposed Project Location
 - Contamination Plume
 - Contamination Plume Buffer
 - Distance
 - 500 feet
 - 1/2 mile



Notes

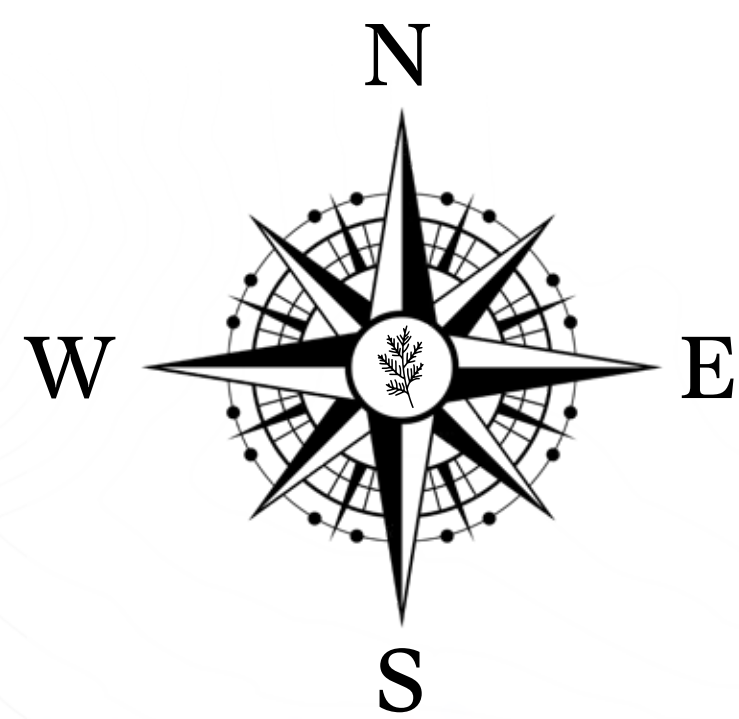
1. Coordinate System: NAD 1983 HARN Adj MN Kandiyohi Feet
2. Data Sources: Duinick, Tepetonka LLC, Kandiyohi County, MnGEO, MnDOT, MnDNR
3. Background: 2020 Kandiyohi Pictometry



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Appendix B

Preliminary Site Plan



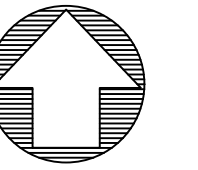
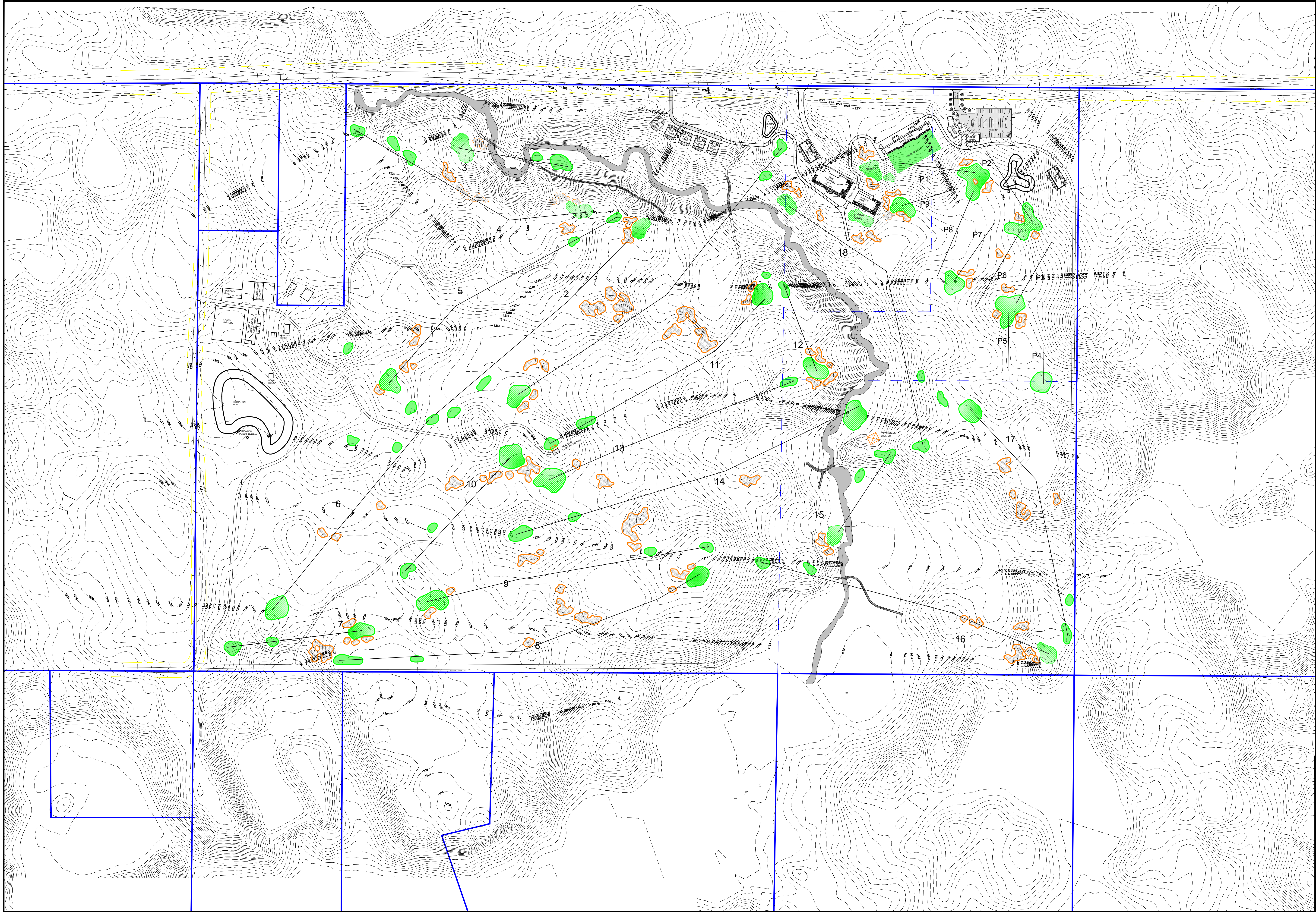
Tepetonha

CARD OF THE COURSE

Hole	Par	Yards
1	5	480 - 575
2	4	320 - 430
3	3	110 - 165
4	4	290 - 330
5	4	350 - 360
6	4	365 - 440
7	3	130 - 220
8	5	450 - 550
9	4	330 - 425
OUT	36	2825 - 3495
10	3	160 - 255
11	4	320 - 405
12	3	120 - 130
13	4	370 - 410
14	5	440 - 575
15	3	100 - 145
16	4	275 - 470
17	4	310 - 425
18	4	300 - 455
IN	34	2395 - 3270
TOTAL	70	5220 - 6765



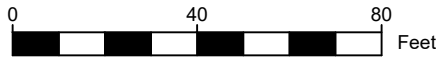
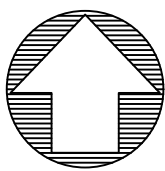
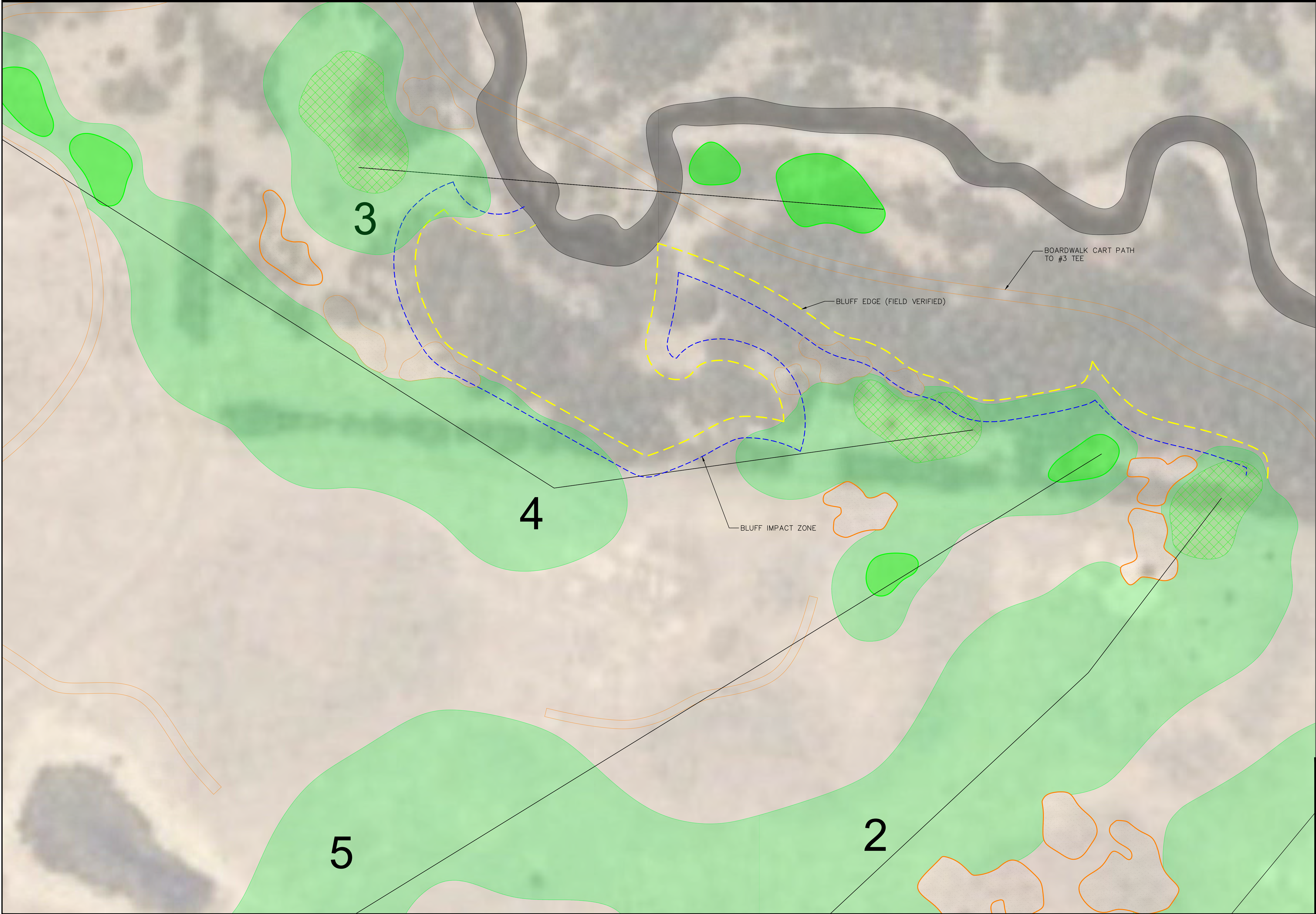
OCM



DUININCK
PHONE: (320)978-6011 FAX: (320)978-4978
P.O. BOX 208 408 SIXTH STREET
PRINSBURG, MN 56281

TEPETONKA GOLF COURSE
MASTER SITE PLAN – OPT 28

DATE JUNE 27, 2023	
SCALE GRAPHIC	SHEET 1 OF 1



DUININCK
PHONE: (320)978-6011 FAX: (320)978-4978
P.O. BOX 208 408 SIXTH STREET
PRINSBURG, MN 56281

TEPETONKA GOLF COURSE
BLUFF IMPACT AVOIDANCE
HOLES 2 – 5

DATE
OCTOBER 28, 2022

SCALE
GRAPHIC

SHEET
1 OF 1

Appendix C

Renderings and Hoggies Hang Floorplan



Date: February 23, 2023

0 8' 16'

Tepetonha

Nantz House



Douglas Fredrikson
Architects



Date: March 28, 2023

0' 8' 16'

Tepetonha

The Lodge



Douglas Fredrikson
Architects
www.dfarchitects.com



Date: April 4, 2023

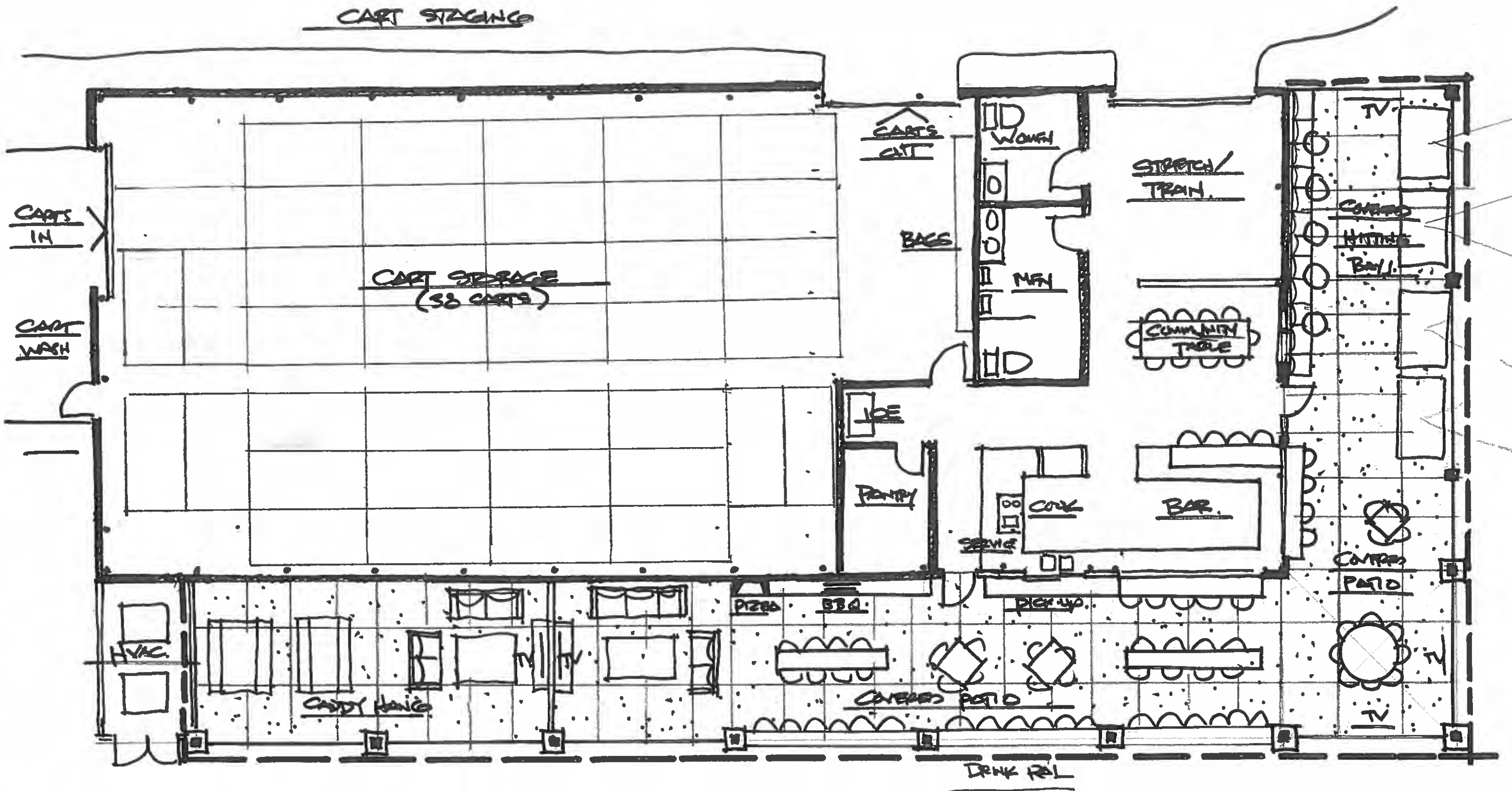
0' 4' 8'

Tepetonha

Hoggies Hang



Douglas Fredrikson
Architects
www.dfarchitects.com



TEPEAHUA BURNING BARN FLOOR PLAN 1/8"

FA 4.223



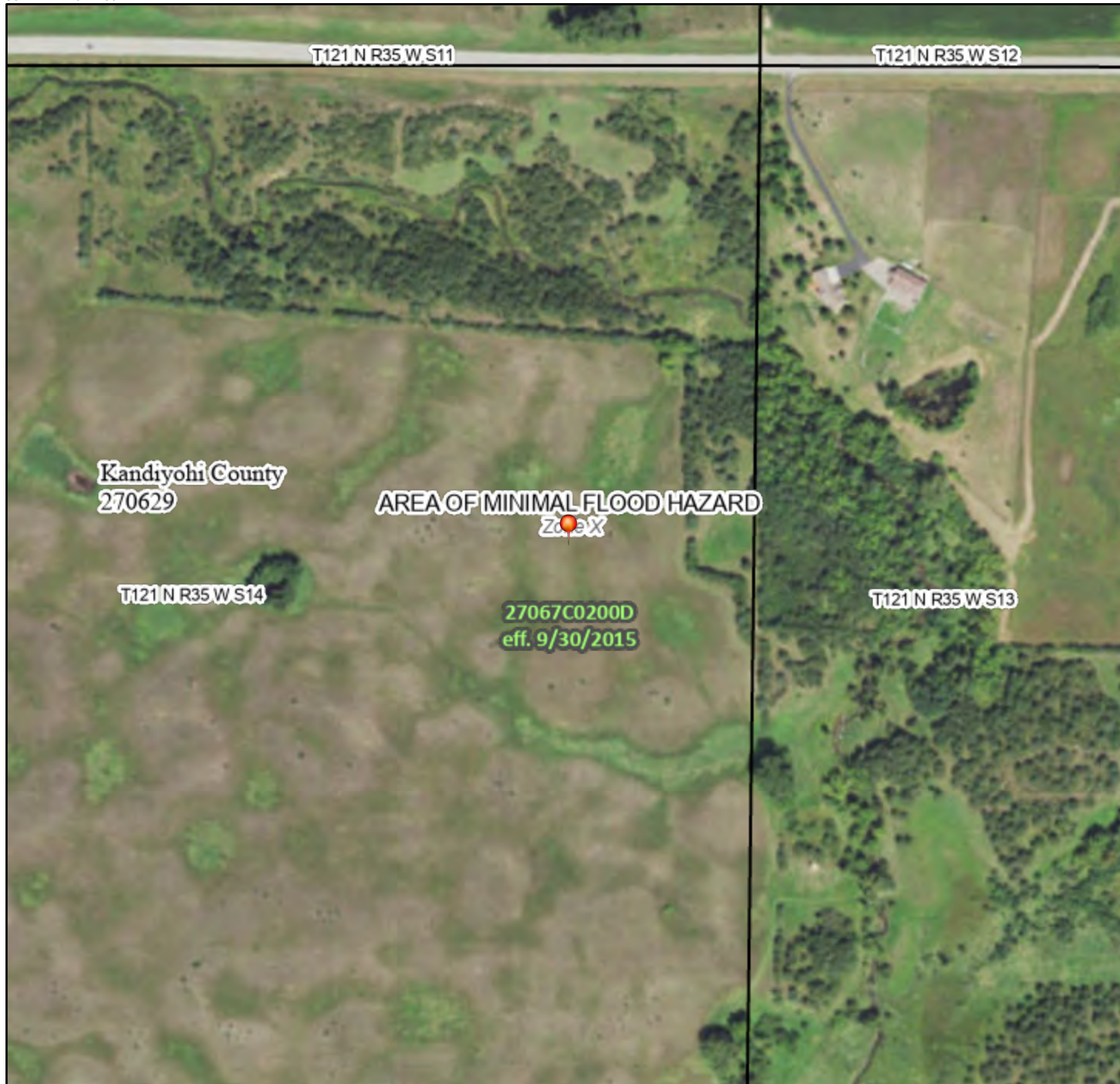
Appendix D

FEMA FIRMette

National Flood Hazard Layer FIRMMette



95°2'12"W 45°17'50"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

95°1'35"W 45°17'25"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **8/22/2022 at 11:10 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Appendix E

MDH Well Log Reports

169854

County Kandiyohi
Quad Mount Tom
Quad ID 143D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date 09/08/1990
Update Date 09/14/2016
Received Date

Well Name DAILY, SAM					Township 121	Range 35	Dir Section W 13	Subsection CADADD	Well Depth 88 ft.		Depth Completed 88 ft.		Date Well Completed 00/00/1980			
Elevation 1223					Elev. Method LiDAR 1m DEM (MNDNR)					Drill Method Non-specified Rotary		Drill Fluid				
Address									Use domestic		Status Active					
Contact NEW LONDON MN									Well Hydrofractured?		Yes ☐ No ☐		From To			
Stratigraphy Information Geological Material From To (ft.) Color Hardness DIRT 0 2 BLACK CLAY 2 20 YELLOW DIRTY SAND 20 32 YELLOW CLAY 32 46 BLUE SAND 46 88 CLAY 88 88 BLUE									Casing Type Single casing		Joint Threaded					
									Drive Shoe? Yes ☐ No ☐		Above/Below					
									Casing Diameter		Weight					
									4 in. To 82 ft.		lbs./ft.					
									Open Hole		From ft. To ft.					
									Screen? ☒		Type stainless		Make HOWARD SMITH			
									Diameter Slot/Gauze Length Set							
									3 in. 20 ft. 82 ft. 87 ft.							
Static Water Level																
Pumping Level (below land surface)																
Wellhead Completion Pitless adapter manufacturer YES Model ☐ Casing Protection ☐ 12 in. above grade ☐ At-grade (Environmental Wells and Borings ONLY)																
Grouting Information Well Grouted? ☐ Yes ☐ No ☐ Not Specified																
Nearest Known Source of Contamination feet Direction Type Well disinfected upon completion? ☐ Yes ☐ No																
Pump ☒ Not Installed Date Installed Manufacturer's name Model Number HP Volt Length of drop pipe ft Capacity g.p. Typ																
Abandoned Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No																
Variance Was a variance granted from the MDH for this well? ☐ Yes ☐ No																
Miscellaneous First Bedrock Aquifer Quaternary Last Strat clay-gray Depth to Bedrock ft Located by Minnesota Geological Survey Locate Method Digitization (Screen) - Map (1:24,000) (15 meters or System UTM - NAD83, Zone 15, Meters X 341618 Y 5016808 Unique Number Verification Tax Records Input Date 09/14/2016																
Angled Drill Hole																
Well Contractor Thein Well Co. Clara City 12013 THEIN, R. Licensee Business Lic. or Reg. No. Name of Driller																

211111

County Kandiyohi
Quad Mount Tom
Quad ID 143D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date 04/11/1988
Update Date 09/15/2016
Received Date

Well Name NOEHL, GARY	Township 121	Range 35	Dir W	Section 14	Subsection BDBADD	Well Depth 80 ft.	Depth Completed 80 ft.	Date Well Completed 10/00/1973						
Elevation 1234	Elev. Method 7.5 minute topographic map (+/- 5 feet)				Drill Method	Drill Fluid								
Address						Use domestic	Status Active							
						Well Hydrofractured? Yes ☐ No ☐			From To					
						Casing Type Single casing			Joint					
						Drive Shoe? Yes ☐ No ☐			Above/Below					
Stratigraphy Information Geological Material From To (ft.) Color Hardness TOPSOIL 0 3 CLAY & GRAVEL 3 55 YELLOW GRAVEL 55 80						Casing Diameter 5 in. To 77 ft. lbs./ft.								
						Open Hole From ft. To ft.								
						Screen? ☒			Type			Make		
						Diameter			Slot/Gauze			Length Set		
						5 in.			25			3 ft. 77 ft. 80 ft.		
						Static Water Level 45 ft. land surface Measure 10/00/1973								
						Pumping Level (below land surface) 65 ft. hrs. Pumping at 18 g.p.m.								
						Wellhead Completion Pitless adapter manufacturer Model ☐ Casing Protection ☐ 12 in. above grade ☐ At-grade (Environmental Wells and Borings ONLY)								
						Grouting Information Well Grouted? ☐ Yes ☐ No ☐ Not Specified								
						Nearest Known Source of Contamination feet Direction Type Well disinfected upon completion? ☐ Yes ☐ No								
Pump ☐ Not Installed Date Installed Manufacturer's name Model Number HP Q Volt Length of drop pipe ft Capacity g.p. Typ														
Abandoned Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No														
Variance Was a variance granted from the MDH for this well? ☐ Yes ☐ No														
Miscellaneous First Bedrock Aquifer Quat. buried Last Strat gravel (+larger) Depth to Bedrock ft Located by Minnesota Geological Survey Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table) System UTM - NAD83, Zone 15, Meters X 339800 Y 5017460 Unique Number Verification Input Date 01/01/1990														
Angled Drill Hole														
Well Contractor Marcus Well Co. 34071 Licensee Business Lic. or Reg. No. Name of Driller														

Remarks

332431

County
Kandiyohi
Quad
Mount Tom
Quad ID
143D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date02/25/2016

Update Date09/15/2016

Received Date

Well Name RS-21	Township 121	Range 35	Dir W	Section 13	Subsection CADCBA	Well Depth 140 ft.	Depth Completed 140 ft.	Date Well Completed 08/01/2012
Elevation 1201	Elev. Method	LiDAR 1m DEM (MNDNR)				Drill Method	Drill Fluid	
Address Well1826 165TH AV NE NEW LONDON MN 56273						Use abandoned	Status Sealed	
						Well Hydrofractured?	Yes ☐	No ☐
Stratigraphy Information						Casing Type	Joint	
						Drive Shoe?	Yes ☐	No ☐
Geological Material						Open Hole		
TOP SOIL						Fromft.Toft.		
FINE SAND						Screen? ☐ TypeMake		
CLAY W/ SAND								
SAND W/CLAY								
CLAY								
SAND & GRAVEL								
SAND & GRAVEL								
GRAVEL & COBBLES								
CLAY								
						Static Water Level		
						44.5ft.land surfaceMeasure08/01/2012		
						Pumping Level (below land surface)		
						Wellhead Completion		
						Pitless adapter manufacturerModel		
						☐ Casing Protection ☐ 12 in. above grade		
						☐ At-grade (Environmental Wells and Borings ONLY)		
						Grouting Information		
						Well Grouted? ☒ Yes ☐ No ☐ Not Specified		
						MaterialAmountFromTo		
						high solids bentonite14Sacksft.140ft.		
						Nearest Known Source of Contamination		
						feetDirectionType		
						Well disinfected upon completion? ☐ Yes ☐ No		
						Pump		
						☐ Not InstalledDate Installed		
						Manufacturer's name		
						Model NumberHPVolt		
						Length of drop pipeftCapacityg.p.Type		
						Abandoned		
						Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No		
						Variance		
						Was a variance granted from the MDH for this well? ☐ Yes ☐ No		
						Miscellaneous		
						First BedrockAquifer		
						Last Stratclay-grayDepth to Bedrockft		
						Located byMinnesota Geological Survey		
						Locate MethodDigitization (Screen) - Map (1:12,000) (>15 meters)		
						SystemUTM - NAD83, Zone 15, MetersX341468Y5016790		
						Unique Number VerificationAddress verificationInput Date02/25/2016		
						Angled Drill Hole		
						Well Contractor		
						Mark J Traut Wells, Inc.1404KARASCH, D.		
						Licensee BusinessLic. or Reg. No.Name of Driller		

332432

County

Kandiyohi

Quad

Mount Tom

Quad ID

143D

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date

02/25/2016

Update Date

09/15/2016

Received Date

Well Name RS-25 Elevation 1169 Township 121 Elev. Method Range 35 Dir Section W 14 Subsection DBBACA	Well Depth 40 ft. Drill Method Depth Completed 40 ft. Drill Fluid Date Well Completed 08/08/2012
Address Well1862 165 CR NEW LONDON MN 56273	Use abandoned Status Sealed Well Hydrofractured? Yes No From To Casing Type Joint Drive Shoe? Yes No Above/Below
Stratigraphy Information Geological Material From To (ft.) Color Hardness TOP SOIL 0 1 BROWN SOFT SAND, GRAVEL & CLAY 1 5 BROWN SOFT SILTY CLAY 5 40 GRAY MEDIUM	Open Hole From ft. To ft. Screen? Type Make Static Water Level Pumping Level (below land surface) Wellhead Completion Pitless adapter manufacturer Model Casing Protection 12 in. above grade At-grade (Environmental Wells and Borings ONLY) Grouting Information Well Grouted? Yes No Not Specified Material Amount From To high solids bentonite 4 Sacks ft. 40 ft. Nearest Known Source of Contamination feet Direction Type Well disinfected upon completion? Yes No Pump Not Installed Date Installed Manufacturer's name Model Number HP Volt Length of drop pipe ft Capacity g.p. Typ Abandoned Does property have any not in use and not sealed well(s)? Yes No Variance Was a variance granted from the MDH for this well? Yes No Miscellaneous First Bedrock Aquifer Last Strat silt+clay-gray Depth to Bedrock ft Located by Minnesota Geological Survey Locate Method Digitization (Screen) - Map (1:12,000) (>15 meters) System UTM - NAD83, Zone 15, Meters X 340158 Y 5017088 Unique Number Verification Site Plan Input Date 02/25/2016 Angled Drill Hole Well Contractor Mark J Traut Wells, Inc. 1404 KARASCH, D. Licensee Business Lic. or Reg. No. Name of Driller
Remarks SELAED 8-8-2012 BY 1404.	

332433

County Kandiyohi
Quad Mount Tom
Quad ID 143D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date 02/25/2016
Update Date 09/15/2016
Received Date

Well Name RS-24	Township 121	Range 35	Dir Section W 14	Subsection ACDCCC	Well Depth 40 ft.	Depth Completed 40 ft.	Date Well Completed 08/08/2012																																			
Elevation 1202	Elev. Method LiDAR 1m DEM (MNDNR)				Drill Method	Drill Fluid																																				
Address Well 1862 165 CR NEW LONDON MN 56273					Use abandoned	Status Sealed																																				
Stratigraphy Information <table><tr><td>Geological Material</td><td>From</td><td>To (ft.)</td><td>Color</td><td>Hardness</td></tr><tr><td>TOP SOIL</td><td>0</td><td>1</td><td>BROWN</td><td>SOFT</td></tr><tr><td>SAND, GRAVEL & CLAY</td><td>1</td><td>4</td><td>BROWN</td><td>SOFT</td></tr><tr><td>SILTY CLAY</td><td>4</td><td>7</td><td>BROWN</td><td>MEDIUM</td></tr><tr><td>CLAY</td><td>7</td><td>20</td><td>GRAY</td><td>MEDIUM</td></tr><tr><td>SAND & GRAVEL</td><td>20</td><td>29</td><td>GRAY</td><td>SOFT</td></tr><tr><td>CLAY</td><td>29</td><td>40</td><td>GRAY</td><td>MEDIUM</td></tr></table>					Geological Material	From	To (ft.)	Color	Hardness	TOP SOIL	0	1	BROWN	SOFT	SAND, GRAVEL & CLAY	1	4	BROWN	SOFT	SILTY CLAY	4	7	BROWN	MEDIUM	CLAY	7	20	GRAY	MEDIUM	SAND & GRAVEL	20	29	GRAY	SOFT	CLAY	29	40	GRAY	MEDIUM	Well Hydrofractured? Yes ☐ No ☐ From To		
					Geological Material	From	To (ft.)	Color	Hardness																																	
					TOP SOIL	0	1	BROWN	SOFT																																	
					SAND, GRAVEL & CLAY	1	4	BROWN	SOFT																																	
					SILTY CLAY	4	7	BROWN	MEDIUM																																	
CLAY	7	20	GRAY	MEDIUM																																						
SAND & GRAVEL	20	29	GRAY	SOFT																																						
CLAY	29	40	GRAY	MEDIUM																																						
Casing Type Drive Shoe? Yes ☐ No ☐ Joint Above/Below																																										
Open Hole Screen? ☐ Type Make																																										
Static Water Level																																										
Pumping Level (below land surface)																																										
Wellhead Completion Pitless adapter manufacturer Model ☐ Casing Protection ☐ 12 in. above grade ☐ At-grade (Environmental Wells and Borings ONLY)																																										
Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified Material Amount From To high solids bentonite 4 Sacks ft. 40 ft.																																										
Nearest Known Source of Contamination feet Direction Type Well disinfected upon completion? ☐ Yes ☐ No																																										
Pump ☐ Not Installed Date Installed Manufacturer's name Model Number HP Volt Length of drop pipe ft Capacity g.p. Typ																																										
Abandoned Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No																																										
Variance Was a variance granted from the MDH for this well? ☐ Yes ☐ No																																										
Miscellaneous First Bedrock Aquifer Last Strat clay-gray Depth to Bedrock ft Located by Minnesota Geological Survey Locate Method Digitization (Screen) - Map (1:12,000) (>15 meters) System UTM - NAD83, Zone 15, Meters X 340241 Y 5017168 Unique Number Verification Site Plan Input Date 02/25/2016																																										
Angled Drill Hole																																										
Well Contractor Mark J Traut Wells, Inc. 1404 KARASCH, D. Licensee Business Lic. or Reg. No. Name of Driller																																										

419869

County

Kandiyohi

Quad

Mount Tom

Quad ID

143D

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date

04/11/1988

Update Date

09/15/2016

Received Date

Well Name THORSON, KEN Township 121 Range 35 Dir W Section 14 Subsection ABCBDD	Well Depth 237 ft. Depth Completed 225 ft. Date Well Completed 03/03/1986
Elevation 1214 Elev. Method LiDAR 1m DEM (MNDNR)	Drill Method Non-specified Rotary Drill Fluid
Address	Use domestic Status Active
Contact RR NEW LONDON MN	Well Hydrofractured? Yes No From To
Stratigraphy Information	Casing Type Single casing Joint
Geological Material From To (ft.) Color Hardness	Drive Shoe? Yes No Above/Below
CLAY 0 20 YELLOW	Casing Diameter Weight
CLAY 20 27 BLUE	5 in. To 220 ft. lbs./ft.
ROCK 27 28	
GRAVEL 28 49	
SANDY CLAY 49 67 BLUE	
CLAY 67 181 BLUE	
SAND 181 183	
CLAY 183 194 BLUE	
SAND 194 195	
CLAY 195 209 BLUE	
SAND - FINE TO 209 237	
	Open Hole From ft. To ft.
	Screen? ☒ Type slotted pipe Make JOHNSON
	Diameter Slot/Gauze Length Set
	5 in. 18 5 ft. 220 ft. 225 ft.
	Static Water Level
	84 ft. land surface Measure 03/03/1986
	Pumping Level (below land surface)
	Wellhead Completion
	Pitless adapter manufacturer MERRILL Model
	☐ Casing Protection ☐ 12 in. above grade
	☐ At-grade (Environmental Wells and Borings ONLY)
	Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified
	Material Amount From To
	well grouted, type unknown ft. ft.
	Nearest Known Source of Contamination
	feet Direction Type
	Well disinfected upon completion? ☒ Yes ☐ No
	Pump ☐ Not Installed Date Installed 04/08/1986
	Manufacturer's name FAIRBANKS-MORSE
	Model Number 2D5008 HP 0.5 Volt 230
	Length of drop pipe 84 ft Capacity g.p. Typ Submersible
	Abandoned
	Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No
	Variance
	Was a variance granted from the MDH for this well? ☐ Yes ☐ No
	Miscellaneous
	First Bedrock Aquifer Quat. buried
	Last Strat sand Depth to Bedrock ft
	Located by Minnesota Geological Survey
	Locate Method GPS SA Off (averaged) (15 meters)
	System UTM - NAD83, Zone 15, Meters X 340127 Y 5017665
	Unique Number Verification Name on mailbox Input Date 12/02/2015
	Angled Drill Hole
	Well Contractor
	Thein Well Co. New London 12050 THEIN, R.
	Licensee Business Lic. or Reg. No. Name of Driller

438178

County Kandiyohi
Quad Mount Tom
Quad ID 143D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date01/22/1991
Update Date09/15/2016
Received Date

Well NameOLSON, Elevation1207 AddressC/W Stratigraphy Information	Township121 Range35 DirW 14 SubsectionDBBCCA Elev. MethodLiDAR 1m DEM (MNDNR) RR 3 NEW LONDON MN 56273 Geological MaterialFromTo (ft.)ColorHardness CLAY08YELLOW YELLOW CLAY & SAND825YELLOW CLAY2536YELLOW SAND & CLAY MIXED3641 CLAY4155BLUE CLAY5585BLUE ROCK8586 CLAY86146BLUE CLAY146160BLUESOFT CLAY160202BLUEHARD SAND202204 CLAY204237BLUE SAND237239 CLAY239264BLUE SAND264265 CLAY265283YELLOW SAND283284 CLAY284299BLUE SAND299300 CLAY300306GREEN SAND306307 CLAY307310GREEN ROCK310312 CLAY312315BLUE SAND315340	Well Depth340 ft. Drill MethodNon-specified Rotary Use domestic Well Hydrofractured?YesNoFromTo Casing TypeSingle casingJoint Drive Shoe?YesNoAbove/Below Casing DiameterWeight 5 in. To 325 ft. lbs./ft. Open HoleFromft.Toft. Screen?XTypeplasticMakeJOHNSON DiameterSlot/GauzeLengthSet 5 in. 155 ft. 325 ft. 330 ft. Static Water Level 25 ft. land surfaceMeasure06/30/1987 Pumping Level (below land surface) 40 ft. 3 hrs. Pumping at35 g.p.m. Wellhead Completion Pitless adapter manufacturerMERRILLModel Casing Protection12 in. above grade At-grade (Environmental Wells and Borings ONLY) Grouting InformationWell Grouted?XYesNoNot Specified MaterialAmountFromTo neat cement8 ft. 325 ft. Nearest Known Source of Contamination 50 feetDirectionSeptic tank/drain field Type Well disinfected upon completion?XYesNo PumpNot InstalledDate Installed10/19/1987 Manufacturer's nameAERMOTOR Model NumberA12B50 2WHP3Volt230 Length of drop pipe60 ftCapacityg.p.TypSubmersible Abandoned Does property have any not in use and not sealed well(s)?YesNo Variance Was a variance granted from the MDH for this well?YesNo Miscellaneous First BedrockAquiferQuat. buried Last Strat sandDepth to Bedrockft Located byMinnesota Geological Survey Locate MethodGPS SA Off (averaged) (15 meters) SystemUTM - NAD83, Zone 15, MetersX340051Y5016977 Unique Number VerificationName on mailboxInput Date12/02/2015 Angled Drill Hole Well Contractor Thein Well Co.34050THEIN, R. Licensee BusinessLic. or Reg. No.Name of Driller
Remarks		

574939

County Kandiyohi
Quad Mount Tom
Quad ID 143D

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date10/21/1996

Update Date09/15/2016

Received Date

Well Name AMMERMAN,	Township 121	Range 35	Dir W	Section 14	Subsection CAAACA
Elevation 1201	Elev. Method LiDAR 1m DEM (MNDNR)				
Address Well 17240 3RD ST NE NEW LONDON MN Contact WILLMAR MN 56201					

Minnesota Well Index Report

574939

Printed on 08/17/2022
HE-01205-15

612108

County Kandiyohi
Quad Mount Tom
Quad ID 143D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date05/07/1999

Update Date09/15/2016

Received Date

Well Name HUGHES, Elevation1201 Address C/W1155 40 CR NE NEW LONDON MN 56273 Stratigraphy Information <table><tr><td>Geological Material</td><td>From</td><td>To (ft.)</td><td>Color</td><td>Hardness</td></tr><tr><td>CLAY BOULDERS</td><td>0</td><td>120</td><td></td><td></td></tr><tr><td>CLAY ROCK</td><td>120</td><td>218</td><td></td><td></td></tr><tr><td>SANDY CLAY W/ SAND</td><td>218</td><td>230</td><td></td><td></td></tr><tr><td>SAND</td><td>230</td><td>239</td><td></td><td></td></tr></table>	Geological Material	From	To (ft.)	Color	Hardness	CLAY BOULDERS	0	120			CLAY ROCK	120	218			SANDY CLAY W/ SAND	218	230			SAND	230	239			Well Depth239 ft. Drill MethodNon-specified Rotary Use domestic Well Hydrofractured? Yes No Casing TypeSingle casing Drive Shoe? Yes No Casing Diameter5 in. Weight233 ft. Hole Diameter8.8 in. Open Hole Screen? Typeplastic MakeJOHNSON Static Water Level Pumping Level (below land surface) Wellhead Completion Grouting Information Nearest Known Source of Contamination Pump Abandoned Variance Miscellaneous Remarks Angled Drill Hole Well Contractor
Geological Material	From	To (ft.)	Color	Hardness																						
CLAY BOULDERS	0	120																								
CLAY ROCK	120	218																								
SANDY CLAY W/ SAND	218	230																								
SAND	230	239																								

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date	08/25/2000
Update Date	09/14/2016
Received Date	

Well Name RIEGSTAD,	Township 121	Range 35	Dir Section W 11	Subsection CDBCAB	Well Depth 63 ft.	Depth Completed 63 ft.	Date Well Completed 02/08/2000		
Elevation 1204	Elev. Method LiDAR 1m DEM (MNDNR)		Drill Method Non-specified Rotary					Drill Fluid Bentonite	
Address Contact 5015 130TH AV NE KERKHOVEN MN 56252 Well 18219 1ST ST N NEW LONDON MN					Use domestic			Status Active	
Stratigraphy Information Geological Material From To (ft.) Color Hardness TOPSOIL 0 2 BLACK SOFT CLAY 2 14 YELLOW SOFT CLAY 14 56 BLUE SOFT SAND 56 63 GRAY SOFT					Well Hydrofractured? Yes ☐ No ☒ From To				
					Casing Type Single casing Joint				
					Drive Shoe? Yes ☐ No ☐ Above/Below				
					Casing Diameter Weight 5 in. To 58 ft. 2.9 lbs./ft.				
					Open Hole From ft. To ft.				
					Screen? ☒ Type stainless Make JOHNSON Diameter Slot/Gauze Length Set 5 in. 15 5 ft. 58 ft. 63 ft.				
					Static Water Level 23 ft. land surface Measure 02/08/2000				
					Pumping Level (below land surface) 35 ft. 1 hrs. Pumping at 40 g.p.m.				
					Wellhead Completion Pitless adapter manufacturer MONITOR Model ☐ Casing Protection ☐ 12 in. above grade ☐ At-grade (Environmental Wells and Borings ONLY)				
					Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified Material Amount From To bentonite 0 ft. 56 ft.				
Remarks SOURCE OF CONTAMINATION: FUTURE SEPTIC.					Nearest Known Source of Contamination 75 feet South Direction Septic tank/drain field Type Well disinfected upon completion? ☒ Yes ☐ No				
					Pump ☐ Not Installed Date Installed Manufacturer's name STA-RITE Model Number HP 0.5 Volt Length of drop pipe ft Capacity g.p. Type Submersible				
					Abandoned Does property have any not in use and not sealed well(s)? ☐ Yes ☒ No				
					Variance Was a variance granted from the MDH for this well? ☐ Yes ☒ No				
					Miscellaneous First Bedrock Aquifer Quat. buried Last Strat sand-gray Depth to Bedrock ft Located by Minnesota Geological Survey Locate Method GPS SA Off (averaged) (15 meters) System UTM - NAD83, Zone 15, Meters X 339716 Y 5018241 Unique Number Verification Name on mailbox Input Date 12/02/2015				
					Angled Drill Hole				
					Well Contractor Marcus Water Well Co 34644 MARCUS, C. Licensee Business Lic. or Reg. No. Name of Driller				
					Minnesota Well Index Report				
					631593				
					Printed on 08/17/2022 HE-01205-15				

635468

County Kandiyohi
Quad Mount Tom
Quad ID 143D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date03/10/2000

Update Date09/15/2016

Received Date

Well Name TOLLEFSON,	Township 121	Range 35	Dir W	Section 13	Subsection BABABC	Well Depth 80 ft.	Depth Completed 75 ft.	Date Well Completed 11/15/1999
Elevation 1234	Elev. Method LiDAR 1m DEM (MNDNR)					Drill Method Non-specified Rotary	Drill Fluid Bentonite	
Address C/W 1521 40 CR NE NEW LONDON MN 56273						Use domestic	Status Active	
Stratigraphy Information						Well Hydrofractured? Yes ☐ No ☒	From To	
						Casing Type Single casing	Joint Above/Below	
Geological Material						Drive Shoe? Yes ☐ No ☒		
From To (ft.) Color Hardness						Casing Diameter 5 in. To 70 ft. lbs./ft.	Hole Diameter 8.8 in. To ft.	
TOP SOIL 1 1								
CLAY 1 3 BLACK								
BOULDER/GRAVEL 3 5								
CLAY 5 9 BROWN								
BOULDER/GRAVEL 9 17								
CLAY 17 27 GRAY SOFT								
BOULDER 27 28								
CLAY 28 29 GRAY								
BOULDER 29 32								
SANDY CLAY 32 68 GRAY SOFT								
BOULDER/SAND 68 70								
GRAVEL 70 76								
SANDY CLAY 76 80 BLUE								
						Open Hole From ft. To ft.		
						Screen? ☒ Type plastic Make JOHNSON		
						Diameter Slot/Gauze Length Set		
						5 in. 12 5 ft. 70 ft. 75 ft.		
						Static Water Level		
						32 ft. land surface Measure 11/15/1999		
						Pumping Level (below land surface)		
						45 ft. 2 hrs. Pumping at 20 g.p.m.		
						Wellhead Completion		
						Pitless adapter manufacturer MARTINSON Model		
						☐ Casing Protection ☒ 12 in. above grade		
						☐ At-grade (Environmental Wells and Borings ONLY)		
						Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified		
						Material Amount From To		
						high solids bentonite 0 ft. 41 ft.		
						Nearest Known Source of Contamination		
						65 feet Direction Septic tank/drain field Type		
						Well disinfected upon completion? ☒ Yes ☐ No		
						Pump ☐ Not Installed Date Installed 11/10/1999		
						Manufacturer's name AERMOTOR		
						Model Number 12T50 HP 0.5 Volt 230		
						Length of drop pipe 60 ft Capacity 12 g.p. Typ Submersible		
						Abandoned		
						Does property have any not in use and not sealed well(s)? ☐ Yes ☒ No		
						Variance		
						Was a variance granted from the MDH for this well? ☐ Yes ☒ No		
						Miscellaneous		
						First Bedrock Aquifer Quat. buried		
						Last Strat clay+sand-gray Depth to Bedrock ft		
						Located by Minnesota Geological Survey		
						Locate Method GPS SA Off (averaged) (15 meters)		
						System UTM - NAD83, Zone 15, Meters X 341375 Y 5017884		
						Unique Number Verification Address verification Input Date 12/02/2015		
						Angled Drill Hole		
						Well Contractor		
						Kolstad-olson 69554 MAJESKI, T.		
						Licensee Business Lic. or Reg. No. Name of Driller		

643515

County Kandiyohi
Quad Mount Tom
Quad ID 143D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date12/05/2000

Update Date09/14/2016

Received Date

Well Name BOE, ROBERT Township 121 Range 35 Dir W Section 11 Subsection DBCDCB	Well Depth 260 ft. Depth Completed 255 ft. Date Well Completed 06/28/2000																																																												
Elevation 1211 Elev. Method LiDAR 1m DEM (MNDNR)	Drill Method Non-specified Rotary Drill Fluid Bentonite																																																												
Address Well681 SOUTH ANDREW DR NE NEW LONDON MN 56273 Contact232 SOUTH ANDREW DR NE NEW LONDON MN 56273	Use domestic Status Active																																																												
Stratigraphy Information <table><tr><td>Geological Material</td><td>From</td><td>To (ft.)</td><td>Color</td><td>Hardness</td></tr><tr><td>TOP SOIL</td><td>0</td><td>1</td><td></td><td></td></tr><tr><td>SANDY CLAY</td><td>1</td><td>18</td><td>YELLOW</td><td></td></tr><tr><td>CLAY</td><td>18</td><td>40</td><td>BLUE</td><td></td></tr><tr><td>SAND</td><td>40</td><td>46</td><td></td><td></td></tr><tr><td>CLAY</td><td>46</td><td>160</td><td>BLUE</td><td></td></tr><tr><td>SAND</td><td>161</td><td>162</td><td></td><td></td></tr><tr><td>CLAY</td><td>162</td><td>218</td><td>BLUE</td><td></td></tr><tr><td>SAND</td><td>218</td><td>241</td><td></td><td></td></tr><tr><td>SANDY CLAY</td><td>241</td><td>245</td><td></td><td></td></tr><tr><td>SAND & GRAVEL</td><td>245</td><td>255</td><td></td><td></td></tr><tr><td>CLAY</td><td>255</td><td>260</td><td>BLUE</td><td></td></tr></table>	Geological Material	From	To (ft.)	Color	Hardness	TOP SOIL	0	1			SANDY CLAY	1	18	YELLOW		CLAY	18	40	BLUE		SAND	40	46			CLAY	46	160	BLUE		SAND	161	162			CLAY	162	218	BLUE		SAND	218	241			SANDY CLAY	241	245			SAND & GRAVEL	245	255			CLAY	255	260	BLUE		Well Hydrofractured? Yes☐ No☒ From To Casing Type Single casing Joint Drive Shoe? Yes☐ No☒ Above/Below Casing Diameter Weight Hole Diameter 5 in. To 225 ft. lbs./ft. 8.8 in. To ft.
	Geological Material	From	To (ft.)	Color	Hardness																																																								
	TOP SOIL	0	1																																																										
	SANDY CLAY	1	18	YELLOW																																																									
	CLAY	18	40	BLUE																																																									
	SAND	40	46																																																										
	CLAY	46	160	BLUE																																																									
	SAND	161	162																																																										
	CLAY	162	218	BLUE																																																									
	SAND	218	241																																																										
SANDY CLAY	241	245																																																											
SAND & GRAVEL	245	255																																																											
CLAY	255	260	BLUE																																																										
Open Hole From ft. To ft.	Screen? ☒ Type plastic Make JOHNSON Diameter Slot/Gauze Length Set 5 in. 20 30 ft. 225 ft. 255 ft.																																																												
Static Water Level 30 ft. land surface Measure 04/13/2000																																																													
Pumping Level (below land surface) 64 ft. 2 hrs. Pumping at 10 g.p.m.																																																													
Wellhead Completion Pitless adapter manufacturer MERRILL Model MCK514 ☐ Casing Protection ☐ 12 in. above grade ☐ At-grade (Environmental Wells and Borings ONLY)																																																													
Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified Material Amount From To high solids bentonite 10 Sacks 0 ft. 128 ft.																																																													
Nearest Known Source of Contamination 50 feet Direction Septic tank/drain field Type Well disinfected upon completion? ☒ Yes ☐ No																																																													
Pump ☐ Not Installed Date Installed 04/24/2000 Manufacturer's name AERMOTOR Model Number T12-50 HP 0.5 Volt 230 Length of drop pipe 80 ft Capacity 12 g.p. Typ Submersible																																																													
Abandoned Does property have any not in use and not sealed well(s)? ☐ Yes ☒ No																																																													
Variance Was a variance granted from the MDH for this well? ☐ Yes ☒ No																																																													
Miscellaneous First Bedrock Aquifer Quat. buried Last Strat clay-gray Depth to Bedrock ft Located by Minnesota Geological Survey Locate Method GPS SA Off (averaged) (15 meters) System UTM - NAD83, Zone 15, Meters X 340177 Y 5018390 Unique Number Verification Address verification Input Date 12/02/2015																																																													
Remarks L1, BL, SAKARIASON BEACH 3RD ADDN	Angled Drill Hole																																																												
	Well Contractor Thein Well Co. 34625 THEIN, R. Licensee Business Lic. or Reg. No. Name of Driller																																																												

Minnesota Well Index Report

643515

Printed on 08/17/2022
HE-01205-15

733313

County Kandiyohi
Quad Mount Tom
Quad ID 143D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date

Update Date09/14/2016

Received Date05/19/2006

Well Name MILLER, JIM	Township 121	Range 35	Dir W	Section 11	Subsection CCDBBA	Well Depth 148 ft.	Depth Completed 148 ft.	Date Well Completed 10/03/2005
Elevation 1198	Elev. Method LiDAR 1m DEM (MNDNR)					Drill Method Non-specified Rotary	Drill Fluid Bentonite	
Address Well 18134 1ST ST NE NEW LONDON MN						Use domestic	Status Active	
Stratigraphy Information						Well Hydrofractured? Yes ☐ No ☒ From To		
Geological Material						Casing Type Single casing Joint		
CLAY						Drive Shoe? Yes ☐ No ☐ Above/Below		
FIRM CLAY						Casing Diameter Weight		
MUDDY SAND						5 in. To 143 ft. 2.9 lbs./ft.		
FIRM CLAY						Open Hole		
SAND						From ft. To ft.		
						Screen? ☒ Type stainless Make JOHNSON		
						Diameter Slot/Gauze Length Set		
						5 in. 10 5 ft. 143 ft. 148 ft.		
						Static Water Level		
						13 ft. land surface Measure 10/03/2005		
						Pumping Level (below land surface)		
						25 ft. 1 hrs. Pumping at 50 g.p.m.		
						Wellhead Completion		
						Pitless adapter manufacturer MONITOR Model BULLDOG		
						☐ Casing Protection ☐ 12 in. above grade		
						☐ At-grade (Environmental Wells and Borings ONLY)		
						Grouting Information		
						Well Grouted? ☒ Yes ☐ No ☐ Not Specified		
						Material Amount From To		
						bentonite 0 ft. 100 ft.		
						Nearest Known Source of Contamination		
						200 feet Southwes Direction Sewer Type		
						Well disinfected upon completion? ☒ Yes ☐ No		
						Pump ☐ Not Installed Date Installed		
						Manufacturer's name STA RITE		
						Model Number HP 0.5 Volt 220		
						Length of drop pipe ft Capacity 12 g.p. Typ Submersible		
						Abandoned		
						Does property have any not in use and not sealed well(s)? ☐ Yes ☒ No		
						Variance		
						Was a variance granted from the MDH for this well? ☐ Yes ☒ No		
						Miscellaneous		
						First Bedrock		
						Last Strat sand-gray Aquifer Quat. buried		
						Depth to Bedrock ft		
						Located by Minnesota Geological Survey		
						Locate Method GPS SA Off (averaged) (15 meters)		
						System UTM - NAD83, Zone 15, Meters X 339493 Y 5018144		
						Unique Number Verification Address verification Input Date 12/02/2015		
						Angled Drill Hole		
						Well Contractor		
						Marcus Water Well Co 34644 MARCUS, C.		
						Licensee Business Lic. or Reg. No. Name of Driller		

796702

County Kandiyohi
Quad Mount Tom
Quad ID 143D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date 11/22/2013
Update Date 09/15/2016
Received Date 12/19/2013

Well Name HOLME, SHEILA	Township 121	Range 35	Dir Section W 14	Subsection ABCACA
Elevation 1213	Elev. Method LiDAR 1m DEM (MNDNR)			
Address Well 17701 3RD ST NE NEW LONDON MN				
Stratigraphy Information				
Geological Material		From	To (ft.)	Color Hardness
CLAY		0	23	YELLOW
CLAY		23	32	BLUE
GRAVEL		32	51	YELLOW SOFT
CLAY		51	210	BLUE
SAND		210	223	GRAY SOFT

Well Depth 223 ft.	Depth Completed 223 ft.	Date Well Completed 05/06/2013
Drill Method Non-specified Rotary	Drill Fluid Bentonite	
Use domestic	Status Active	
Well Hydrofractured? Yes ☐ No ☒ From To		
Casing Type Single casing Joint		
Drive Shoe? Yes ☐ No ☐ Above/Below		
Casing Diameter Weight		
5 in. To 218 ft. 2.9 lbs./ft.		
Open Hole From ft. To ft.		
Screen? ☒ Type stainless Make JOHNSON		
Diameter Slot/Gauze Length Set		
5 in. 10 5 ft. 218 ft. 223 ft.		
Static Water Level		
35 ft. land surface Measure 05/06/2013		
Pumping Level (below land surface)		
60 ft. 1 hrs. Pumping at 80 g.p.m.		
Wellhead Completion		
Pitless adapter manufacturer MONITOR Model BULLDOG		
☐ Casing Protection ☐ 12 in. above grade		
☐ At-grade (Environmental Wells and Borings ONLY)		
Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified		
Material Amount From To		
high solids bentonite ft. 100 ft.		
Nearest Known Source of Contamination		
90 feet Northwes Direction Septic tank/drain field Type		
Well disinfected upon completion? ☒ Yes ☐ No		
Pump ☐ Not Installed Date Installed		
Manufacturer's name SCHAEFER		
Model Number HP 0.5 Volt 220		
Length of drop pipe ft Capacity g.p. Typ Submersible		
Abandoned		
Does property have any not in use and not sealed well(s)? ☐ Yes ☒ No		
Variance		
Was a variance granted from the MDH for this well? ☐ Yes ☒ No		
Miscellaneous		
First Bedrock Aquifer Quat. buried		
Last Strat sand-gray Depth to Bedrock ft		
Located by Minnesota Geological Survey		
Locate Method Digitization (Screen) - Map (1:24,000) (15 meters or		
System UTM - NAD83, Zone 15, Meters X 340166 Y 5017673		
Unique Number Verification Info/GPS from data Input Date 06/04/2013		
Angled Drill Hole		
Well Contractor		
Marcus Water Well Co., Inc. 1437 MARCUS, C.		
Licensee Business Lic. or Reg. No. Name of Driller		

796704

County Kandiyohi
Quad Mount Tom
Quad ID 143D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date 11/22/2013
Update Date 09/15/2016
Received Date 12/19/2013

Well Name NOEHL, GARY	Township 121	Range 35	Dir Section W 14	Subsection BDBADB
Elevation 1219	Elev. Method LiDAR 1m DEM (MNDNR)			
Address C/W 17510 3RD ST NE NEW LONDON MN 56273				
Stratigraphy Information				
Geological Material		From	To (ft.)	Color Hardness
CLAY		0	32	YELLOW SOFT
SAND/GRAVEL		32	53	YELLOW SOFT
SAND/GRAVEL		53	82	GRAY SOFT

Well Depth 82 ft.	Depth Completed 82 ft.	Date Well Completed 05/15/2013
Drill Method Non-specified Rotary	Drill Fluid Bentonite	
Use domestic	Status Active	
Well Hydrofractured? Yes ☐ No ☒ From To		
Casing Type Single casing	Joint	
Drive Shoe? Yes ☐ No ☐	Above/Below	
Casing Diameter Weight		
5 in. To 77 ft. 2.9 lbs./ft.		
Open Hole From ft. To ft.		
Screen? ☒	Type stainless	Make JOHNSON
Diameter Slot/Gauze	Length	Set
5 in. 15	5 ft. 77	ft. 82 ft.
Static Water Level		
49 ft.	land surface	Measure 05/15/2013
Pumping Level (below land surface)		
65 ft.	1 hrs.	Pumping at 30 g.p.m.
Wellhead Completion		
Pitless adapter manufacturer MONITOR Model BULLDOG		
☐ Casing Protection ☐ 12 in. above grade		
☐ At-grade (Environmental Wells and Borings ONLY)		
Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified		
Material	Amount	From To
high solids bentonite		ft. 72 ft.
Nearest Known Source of Contamination		
60 feet	Southwes Direction	Sewer Type
Well disinfected upon completion? ☐ Yes ☐ No		
Pump ☐ Not Installed Date Installed		
Manufacturer's name SCHAEFER		
Model Number	HP	Volt
Length of drop pipe	ft Capacity	g.p. Typ Submersible
Abandoned		
Does property have any not in use and not sealed well(s)? ☐ Yes ☒ No		
Variance		
Was a variance granted from the MDH for this well? ☐ Yes ☒ No		
Miscellaneous		
First Bedrock	Aquifer	Quat. buried
Last Strat	sand +larger-gray	Depth to Bedrock ft
Located by Minnesota Geological Survey		
Locate Method Digitization (Screen) - Map (1:24,000) (15 meters or		
System	UTM - NAD83, Zone 15, Meters	X 339804 Y 5017482
Unique Number Verification	Info/GPS from data	Input Date 06/04/2013
Angled Drill Hole		
Well Contractor		
Marcus Water Well Co., Inc.	1437	MARCUS, C.
Licensee Business	Lic. or Reg. No.	Name of Driller

809692

County Kandiyohi
Quad Mount Tom
Quad ID 143D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date01/05/2015
Update Date09/15/2016
Received Date12/30/2014

Well Name MW-29B	Township 121	Range 35	Dir Section W 14	Subsection DDAABB
Elevation 1174	Elev. Method LiDAR 1m DEM (MNDNR)			
Address Well10TH ST NE NEW LONDON MN 56273				
Stratigraphy Information				
Geological Material		From	To (ft.)	Color Hardness
TOP SOIL		0	1	BROWN SOFT
SAND & GRAVEL		1	6	BROWN SOFT
CLAY		6	27	GRAY MEDIUM
SAND & GRAVEL		27	50	GRAY SOFT
CLAY		50	50	GRAY MEDIUM
Well Depth 50 ft.				
Depth Completed 40 ft.				
Date Well Completed 12/09/2014				
Drill Method Vibracore/rotasonic				
Drill Fluid Water				
Use monitor well				
Status Active				
Well Hydrofractured? Yes ☐ No ☒				
From To				
Casing Type Single casing				
Joint Threaded				
Drive Shoe? Yes ☐ No ☒				
Above/Below				
Casing Diameter 2 in. To 36 ft. 1.92 lbs./ft.				
Weight 7 in. To 50 ft.				
Hole Diameter				
Open Hole From ft. To ft.				
Screen? ☒ Slot/Gauze ☐ Length				
Type stainless				
Make JOHNSON				
Diameter 2 in. 10				
Length 5 ft. 35 ft. 40 ft.				
Set				
Static Water Level				
Pumping Level (below land surface) ft. 0.7 hrs. Pumping at 2 g.p.m.				
Wellhead Completion Pitless adapter manufacturer Model				
☒ Casing Protection ☐ 12 in. above grade				
☐ At-grade (Environmental Wells and Borings ONLY)				
Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified				
Material		Amount	From	To
high solids bentonite	3 Sacks	4	ft. 27	ft.
neat cement	4 Sacks	4	ft. 4	ft.
Nearest Known Source of Contamination feet Direction Type				
Well disinfected upon completion? ☐ Yes ☒ No				
Pump ☒ Not Installed ☐ Date Installed				
Manufacturer's name				
Model Number		HP	Volt	
Length of drop pipe		ft	Capacity	g.p. Typ
Abandoned Does property have any not in use and not sealed well(s)? ☐ Yes ☒ No				
Variance Was a variance granted from the MDH for this well? ☐ Yes ☒ No				
Miscellaneous				
First Bedrock		Aquifer	Quaternary	
Last Strat	clay-gray	Depth to Bedrock	ft	
Located by Minnesota Geological Survey				
Locate Method Digitization (Screen) - Map (1:24,000) (15 meters or				
System		UTM - NAD83, Zone 15, Meters	X 340712	Y 5016729
Unique Number Verification		Info/GPS from data	Input Date	04/26/2016
Angled Drill Hole				
Well Contractor Mark J Traut Wells, Inc. 1404 KARASCH, D. Licensee Business Lic. or Reg. No. Name of Driller				

Appendix F
WCA Notice of Decision
USACE Approved Jurisdictional Determination



DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
332 MINNESOTA STREET, SUITE E1500
ST. PAUL, MN 55101-1323

March 14, 2023

Regulatory File No. 2022-00983-BGO

Tepetonka LLC
c/o Mark Haugejorde
200 Southdale Center
Edina, MN 55435

Dear Mark Haugejorde:

This letter regards an approved jurisdictional determination for the Tepetonka Golf Course site located in Lake Andrew Township. The project site is in Sections 13 and 14, Township 121 North, Range 35 West, Kandiyohi County, Minnesota. The review area for our jurisdictional determination is identified as Wetlands W1, W3, W6, W10, W12, W13, W14, and W20, as shown on the enclosed figures labeled 2022-00983-BGO, Figures 1-23 of 23.

The review area consists of Wetlands W1, W3, W6, W10, W12, W13, W14, and W20, which are not waters of the United States subject to Corps of Engineers (Corps) jurisdiction. Therefore, you are not required to obtain Department of the Army authorization to discharge dredged or fill material within this area. The rationale for this determination is provided in the enclosed Approved Jurisdictional Determination form. This determination is only valid for the review area described.

If you object to this approved jurisdictional determination, you may request an administrative appeal under Corps regulations at 33 CFR 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination, you must submit a completed RFA form to the Mississippi Valley Division Office at the address shown on the form.

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR 331.5, and that it has been received by the Division Office within 60 days of the date of the enclosed NAP. It is not necessary to submit an RFA form to the division office if you do not object to the determination in this letter.

This approved jurisdictional determination may be relied upon for five years from the date of this letter. However, the Corps reserves the right to review and revise the determination in response to changing site conditions, information that was not considered during our initial review, or off-site activities that could indirectly alter the extent of wetlands and other resources on-site. This determination may be renewed at the end of the five year period provided you submit a written request and our staff are able to verify that the limits established during the original determination are still accurate.

Regulatory Division (File No. 2022-00983-BGO)

If you have any questions, please contact me in our St. Paul office at (651) 290-5280 or Benjamin.G.Orne@usace.army.mil. In any correspondence or inquiries, please refer to the Regulatory file number shown above.

Sincerely,

A handwritten signature in dark ink that reads "Benjamin Orne". The signature is written in a cursive, flowing style.

Ben Orne
Lead Project Manager

Enclosures

cc:

Jason Ver Steeg, Duininck Inc.

Tony Kaster, Stantec

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): March 14, 2023

B. ST PAUL, MN DISTRICT OFFICE, FILE NAME, AND NUMBER: MVP-2022-00983-BGO; Tepetonka Golf Course

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Minnesota County/parish/borough: Kandiyohi City: Lake Andrew Township

Center coordinates of site (lat/long in degree decimal format): Lat. 45.293099° N, Long. -95.032034° W.

Universal Transverse Mercator: X 340663.534116, Y 5017519.314192, UTM Zone 15

Name of nearest waterbody: Shakopee Creek

Name of watershed or Hydrologic Unit Code (HUC): HUC 8: 07020005 - Chippewa River Watershed

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: February 23, 2023

☒ Field Determination. Date(s): September 2, 2023

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There are no “navigable waters of the U.S.” within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There are no “waters of the U.S.” within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.: N/A

2. Non-regulated waters/wetlands (check if applicable):¹

- ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **The review area for this determination is limited to the boundaries of Wetlands W1, W3, W6, W10, W12, W13, W14, and W20, as shown on the attached figures labeled 2022-00983-BGO, Figures 1-23 of 23. Based on the final wetland delineation report completed for this site and observations recorded during a site inspection, we have determined that Wetlands W1, W3, W6, W10, W12, W13, and W14 are isolated basins that do not have a surface or shallow subsurface connection to any downstream waters. The initial wetland delineation, including aerial imagery and topographic maps, indicated several potential drainage features between these wetlands and Shakopee Creek which is located through the center of the project site. However, each of these areas were investigated during a site visit conducted on September 2, 2022, and it was determined that these potential drainages were not defined topographic features and any potential connection to downstream waters would be limited to overland sheet flow, which is not sufficient to establish adjacency. In addition, no culverts, tile lines or other inlets/outlets were identified in these areas. Based on this field determination, Wetlands W1, W3, W6, W10, W12, W13, and W14 were determined to be isolated. This is further supported by the national wetland and hydrography datasets, which do not identify any aquatic resources or other potential connections between these wetlands and Shakopee Creek.**

Wetlands W1, W3, W6, W10, W12, W13, and W14 do not support links to interstate or foreign commerce; are not known to be used by interstate or foreign travelers for recreation or other purposes; do not produce fish or shellfish that could be taken and sold in interstate or foreign commerce; and are not known to be used for industrial purposes by industries in interstate commerce. Wetlands W1, W3, W6, W10, W12, W13, and W14 do not have an ecological connection to a water of the United States. Therefore, the

¹ Supporting documentation is presented in Section III.F.

Corps has determined that Wetlands W1, W3, W6, W10, W12, W13, and W14 are not jurisdictional under Section 404 of the Clean Water Act.

Wetland W20 is a man-made pond that was constructed in uplands for stock watering purposes. This was confirmed by reviewing the attached historical imagery, which shows the area was previously cropped. The 1996 photo shows W20 as a non-wetland area. The 1998 photo shows grading work at the house site, and potential earth work on the southwest side of W20 where a berm is located. The 1999 photo shows W20 still under construction, and the 2003 photo shows it as a fully developed pond. The attached Google Earth photo documents livestock fencing around the pasture that includes W20, and further supports the use of this area as a stock pond. This is also supported by the national wetland inventory, which identifies this area as an freshwater emergent wetland that was created by a man-made barrier or dam - PEM1Ch. The Kandiyohi County Soil Survey also shows the area to be predominantly non-hydric (Map Unit L315E, 1-25%) and partially hydric (Map Unit L336A, 26-50%) soils. There are no other aquatic resources connected to Wetland W20.

The non-jurisdictional determination for this pond (W20) is in accordance with the preamble to the 1986 Corps Regulations (CFR Parts 320-330), which states that the Corps generally does not consider the following waters to be Waters of the United States; "Artificial, constructed lakes or ponds created by excavating and/or diking dry land such as farm and stock watering ponds to collect and retain water and which are used exclusively for such purpose as stock watering, irrigation, settling basins, or rice growing." Based on this review, Wetland W20 was constructed in dry land for stock watering purposes and is not jurisdictional under Section 404 of the Clean Water Act.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs: N/A

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY): N/A

C. SIGNIFICANT NEXUS DETERMINATION: N/A

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY): N/A

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY): N/A

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 - ☒ Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:
- ☒ Other (explain, if not covered above): **Wetland W20 (0.68 ac)**

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☒ Wetlands: Wetland W1 (0.11 ac), W3 (0.39 ac), W6 (0.20 ac), W10 (0.54 ac), W12 (0.57 ac), W13 (1.01 ac), and W14 (1.15 ac) acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

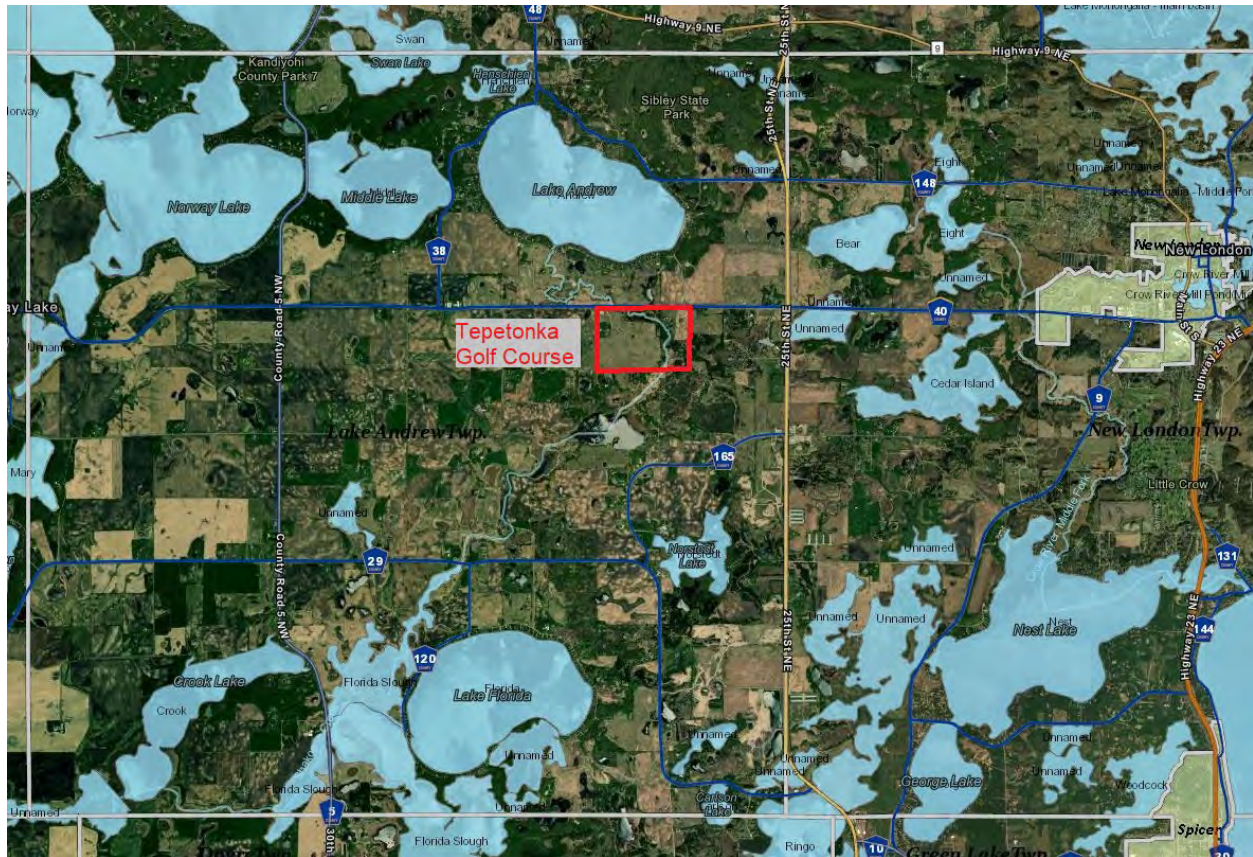
SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: **Wetland Delineation 6-27-2022 Tepetonka Golf Course Site Kandiyohi County, MN**
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - ☒ Office concurs with data sheets/delineation report.
 - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps:
- ☐ Corps navigable waters' study:
- ☒ U.S. Geological Survey Hydrologic Atlas: **National Hydrography Dataset (USGS Service)**
 - ☒ USGS NHD data.
 - ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: **USGS Topographic Quads (USA Topo Maps)**
- ☒ USDA Natural Resources Conservation Service Soil Survey. Citation: **Kandiyohi County Soil Survey**
- ☒ National wetlands inventory map(s). Cite name: **USFWS NWI of MN, 1974-1978**
- ☒ State/Local wetland inventory map(s): **DNR NWI Update - MN, 2010-2018**
- ☐ FEMA/FIRM maps:
- ☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): **Google Earth Imagery 1991-2019**
or ☒ Other (Name & Date): **FSA Aerial Imagery 1996, 1998, 1999, and 2003**
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Applicable/supporting case law:
- ☐ Applicable/supporting scientific literature:
- ☒ Other information (please specify): **2-Foot Contours Minnesota (LIDAR Service)**

B. ADDITIONAL COMMENTS TO SUPPORT JD: N/A

Site Location Map



Sections 13 and 14, Township 121 North, Range 35 W

Lake Andrew Township

Kandiyohi County, Minnesota

AJD Review Area Includes Wetlands W1, W3, W6, W10, W12, W13, W14, and W20.

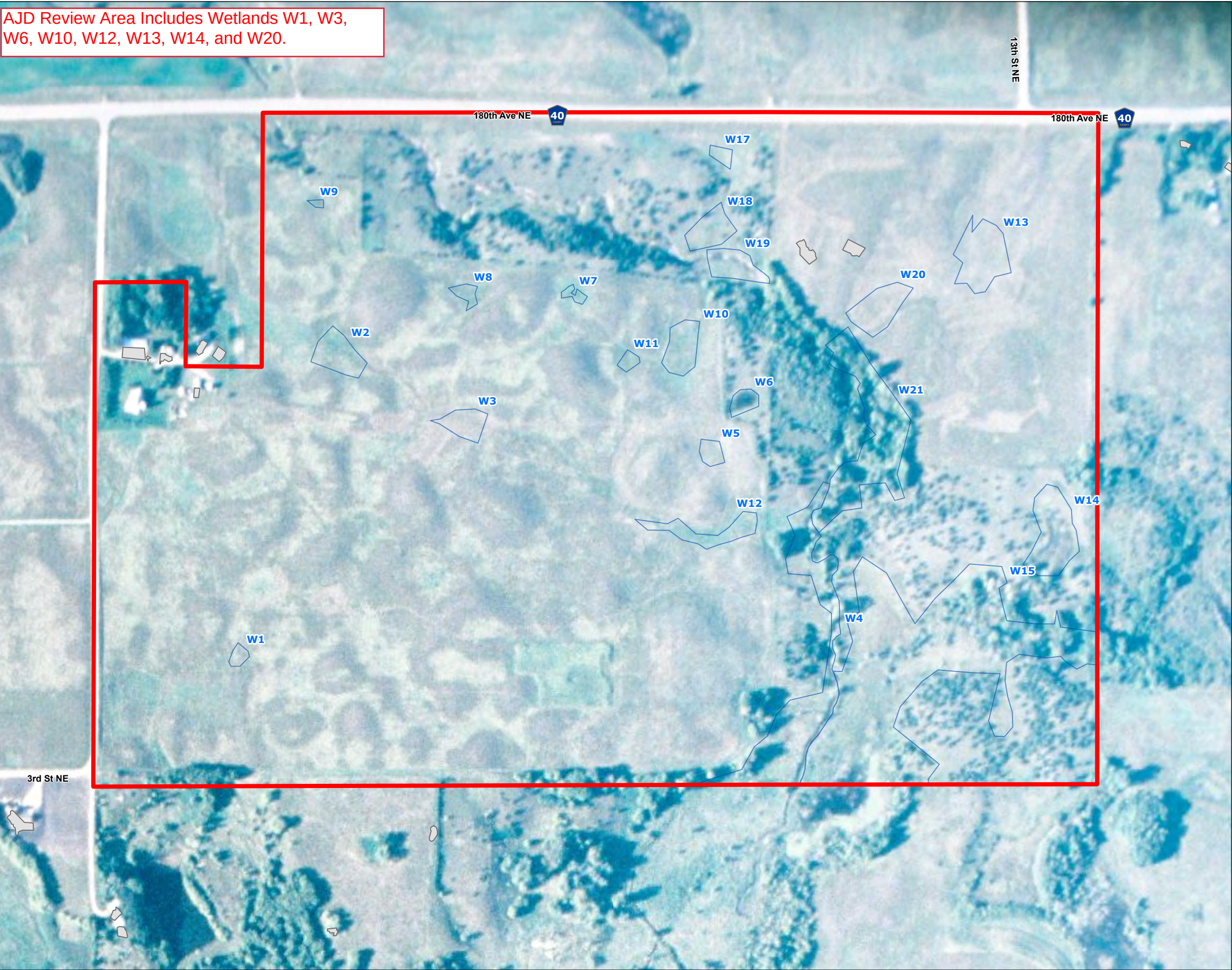
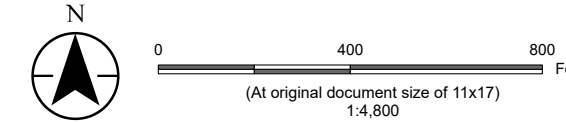


Figure No. 1
Title Tepetonka Base Map - 1996 FSA Aerial

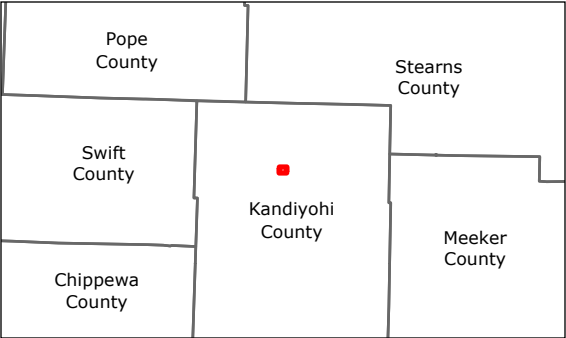
Client/Project 227703504
Tepetonka Club, LLC
Base Mapping

Project Location Prepared by JCS on 2022-05-13
T121N, R35W, S13,14
New London, Kandiyohi Co., MN



- Legend
- Proposed Project Boundary
 - Buildings
 - Delineated Wetlands

Wetland	Acres	Wetland	Acres
W1	0.11	W11	0.10
W2	0.57	W12	0.57
W3	0.39	W13	1.01
W4	3.17	W14	1.15
W5	0.19	W15	10.27
W6	0.20	W17	0.12
W7	0.08	W18	0.49
W8	0.14	W19	0.51
W9	0.03	W20	0.68
W10	0.54	W21	2.68



Notes
1. Coordinate System: NAD 1983 HARN Adj MN Kandiyohi Feet
2. Data Sources: Duinick, Tepetonka LLC, Kandiyohi County, MN GEO, MHAPO, FSA
3. Background: FSA 1996 Imagery



AJD Review Area Includes Wetlands W1, W3, W6, W10, W12, W13, W14, and W20.

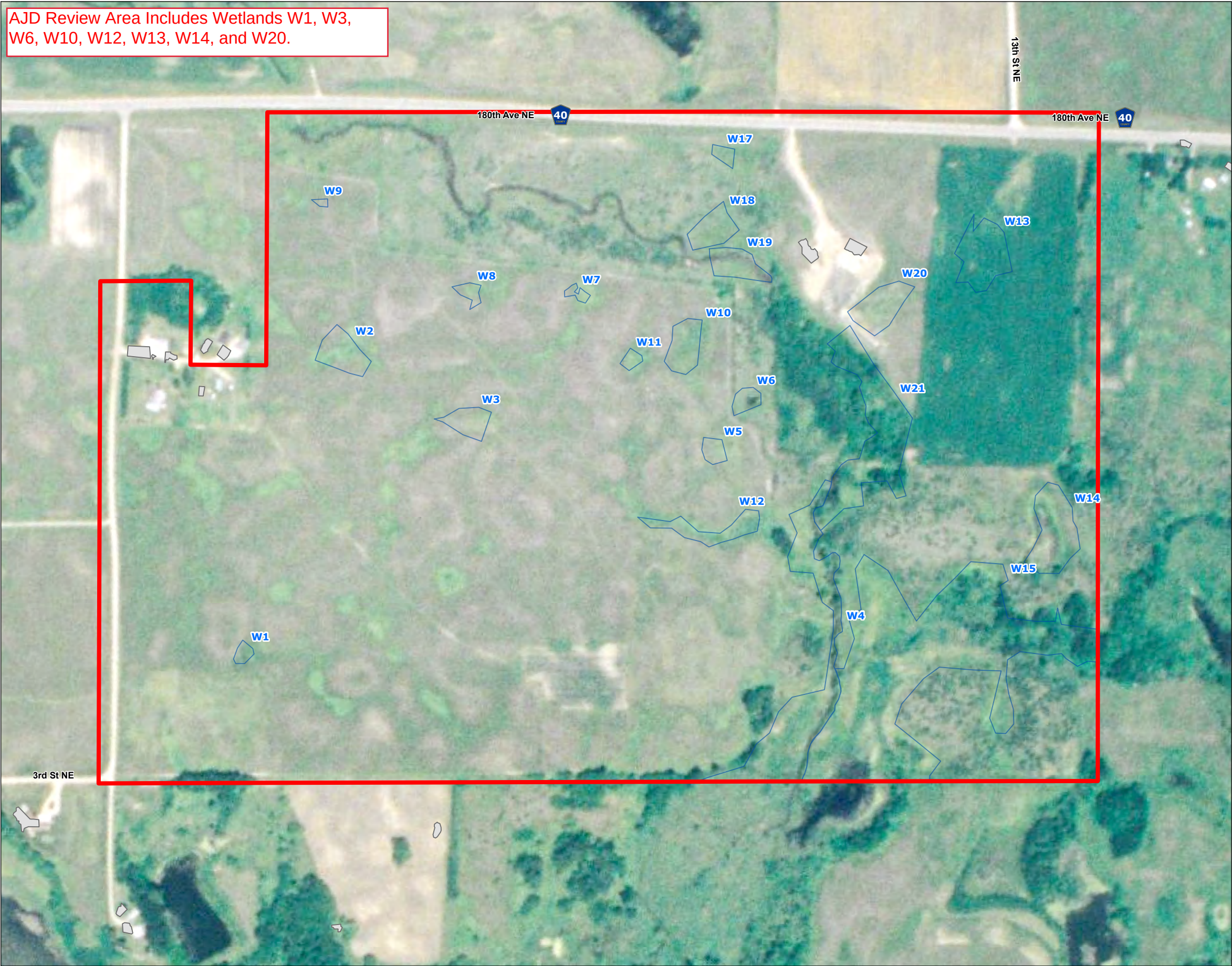
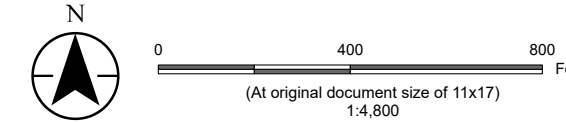


Figure No. 1
Title Tepetonka Base Map - 1998 FSA Aerial

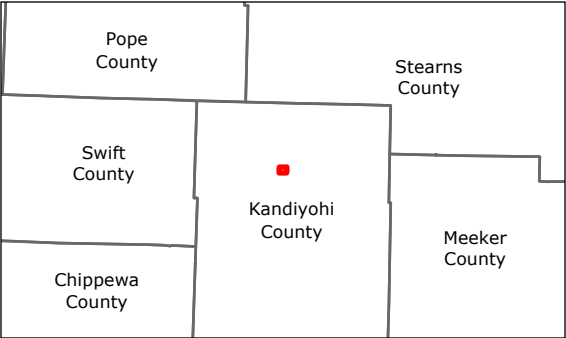
Client/Project 227703504
Tepetonka Club, LLC
Base Mapping

Project Location Prepared by JCS on 2022-05-13
T121N, R35W, S13,14
New London, Kandiyohi Co., MN



- Legend
- Proposed Project Boundary
 - Buildings
 - Delineated Wetlands

Wetland	Acres	Wetland	Acres
W1	0.11	W11	0.10
W2	0.57	W12	0.57
W3	0.39	W13	1.01
W4	3.17	W14	1.15
W5	0.19	W15	10.27
W6	0.20	W17	0.12
W7	0.08	W18	0.49
W8	0.14	W19	0.51
W9	0.03	W20	0.68
W10	0.54	W21	2.68



Notes
1. Coordinate System: NAD 1983 HARN Adj MN Kandiyohi Feet
2. Data Sources: Duinick, Tepetonka LLC, Kandiyohi County, MN GEO, MHAPO, FSA
3. Background: FSA 1998 Imagery



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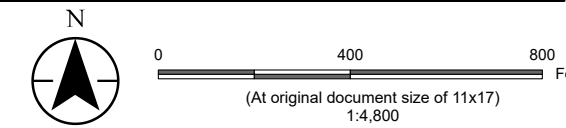
AJD Review Area Includes Wetlands W1, W3, W6, W10, W12, W13, W14, and W20.



Figure No. 1
Title
Tepetonka Base Map - 1999 FSA Aerial

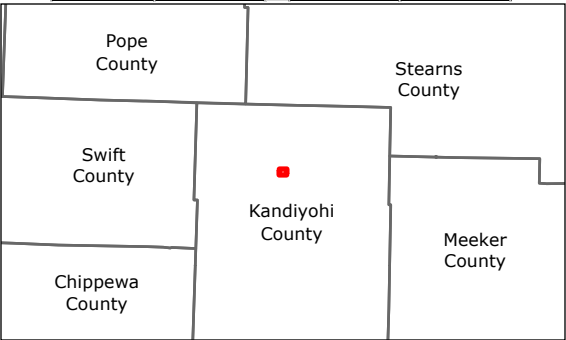
Client/Project
Tepetonka Club, LLC
Base Mapping

Project Location
T121N, R35W, S13,14
New London, Kandiyohi Co., MN



- Legend
- Proposed Project Boundary
 - Buildings
 - Delineated Wetlands

Wetland	Acres	Wetland	Acres
W1	0.11	W11	0.10
W2	0.57	W12	0.57
W3	0.39	W13	1.01
W4	3.17	W14	1.15
W5	0.19	W15	10.27
W6	0.20	W17	0.12
W7	0.08	W18	0.49
W8	0.14	W19	0.51
W9	0.03	W20	0.68
W10	0.54	W21	2.68



Notes
1. Coordinate System: NAD 1983 HARN Adj MN Kandiyohi Feet
2. Data Sources: Duinick, Tepetonka LLC, Kandiyohi County, MN GEO, MHAPO, FSA
3. Background: FSA 1999 Imagery



V:\2277\active\227703504\03_data\gis\proj\tepetonka_base.aprx Revised: 2022-05-13 By: jshuck

AJD Review Area Includes Wetlands W1, W3, W6, W10, W12, W13, W14, and W20.

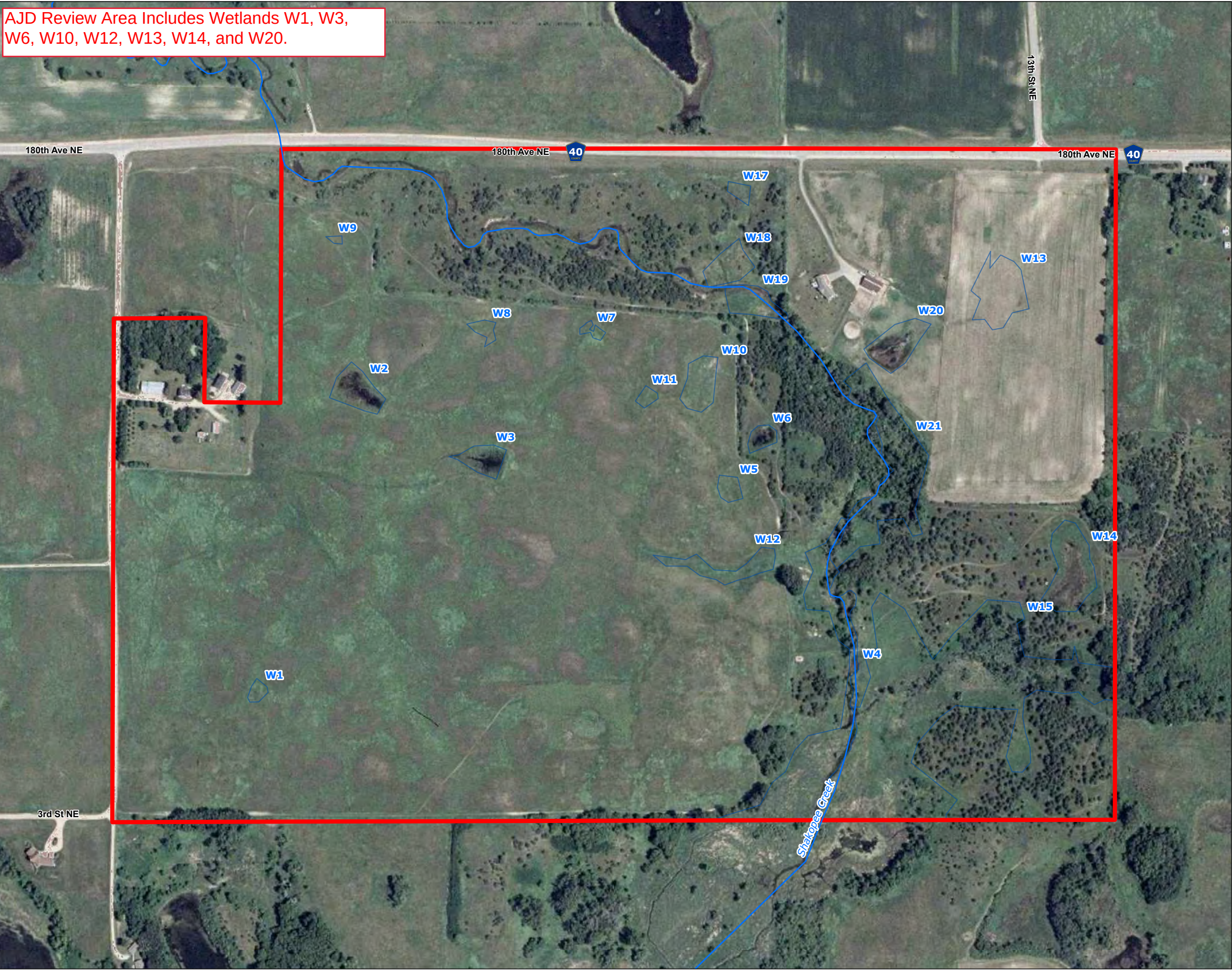


Figure No.
1

Title
Tepetonka Base Map - 2003 Aerial

Client/Project
Tepetonka Club, LLC
Base Mapping

227703504

Project Location
T121N, R35W, S13, 14
New London, Kandiyohi Co., MN

Prepared by JCS on 2022-05-10

N

0

400

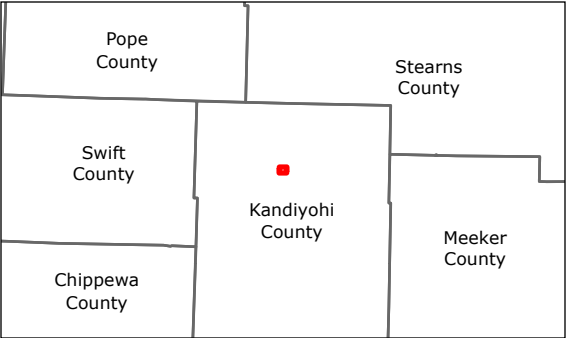
800

Feet

(At original document size of 11x17)
1:4,800

- Legend
- Proposed Project Boundary
 - Delineated Wetlands
 - Streams

Wetland	Acres	Wetland	Acres
W1	0.11	W11	0.10
W2	0.57	W12	0.57
W3	0.39	W13	1.01
W4	3.17	W14	1.15
W5	0.19	W15	10.27
W6	0.20	W17	0.12
W7	0.08	W18	0.49
W8	0.14	W19	0.51
W9	0.03	W20	0.68
W10	0.54	W21	2.68



Notes

- Coordinate System: NAD 1983 HARN Adj MN Kandiyohi Feet
- Data Sources: Duinick, Tepetonka LLC, Kandiyohi County, MN GEO, MHAPO
- Background: MN GEO 2003 Aerial Photograph



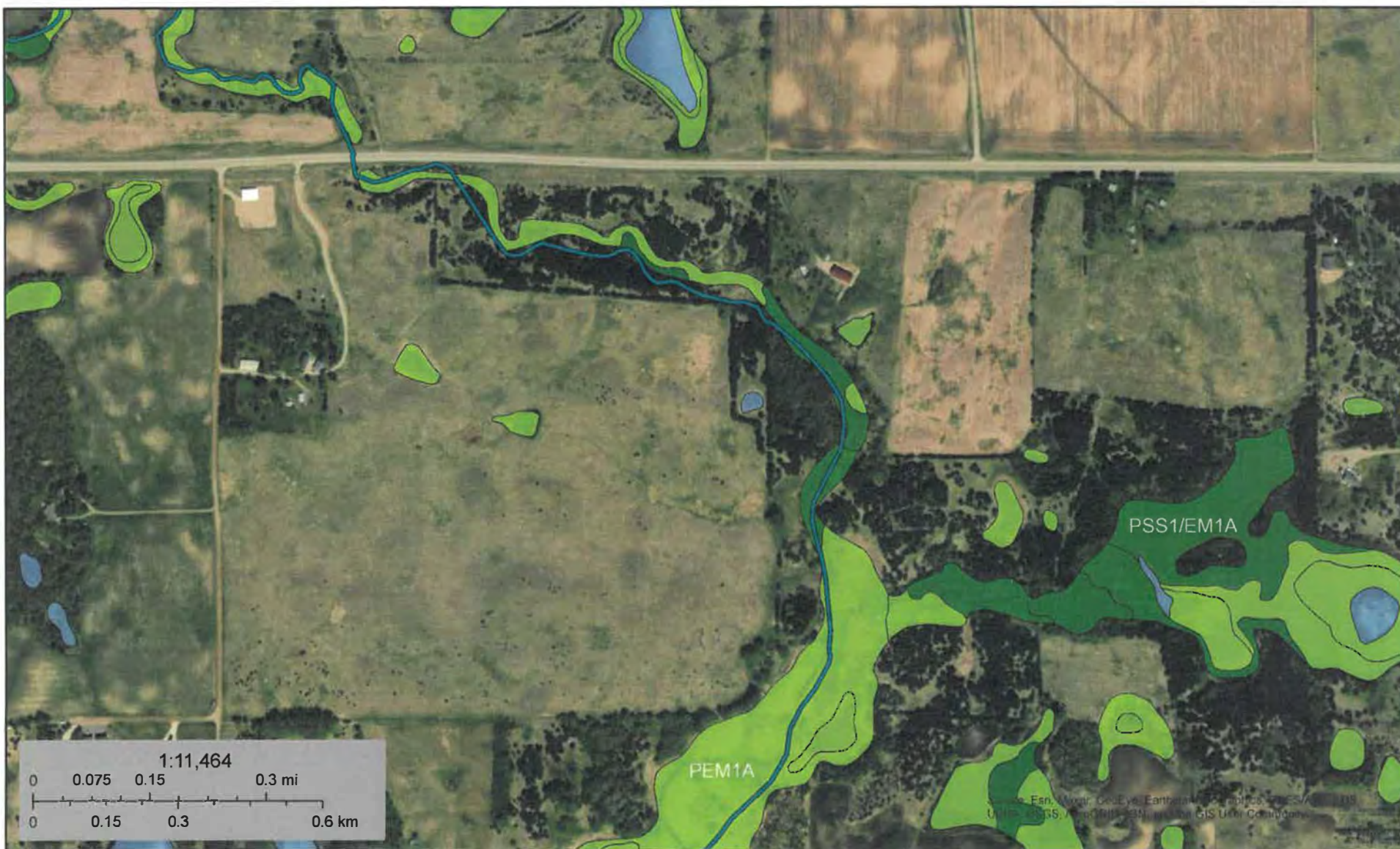
4/2015

2022-00983-BGO Figure 6 of 23



1985

Google Earth



March 2, 2022

Wetlands

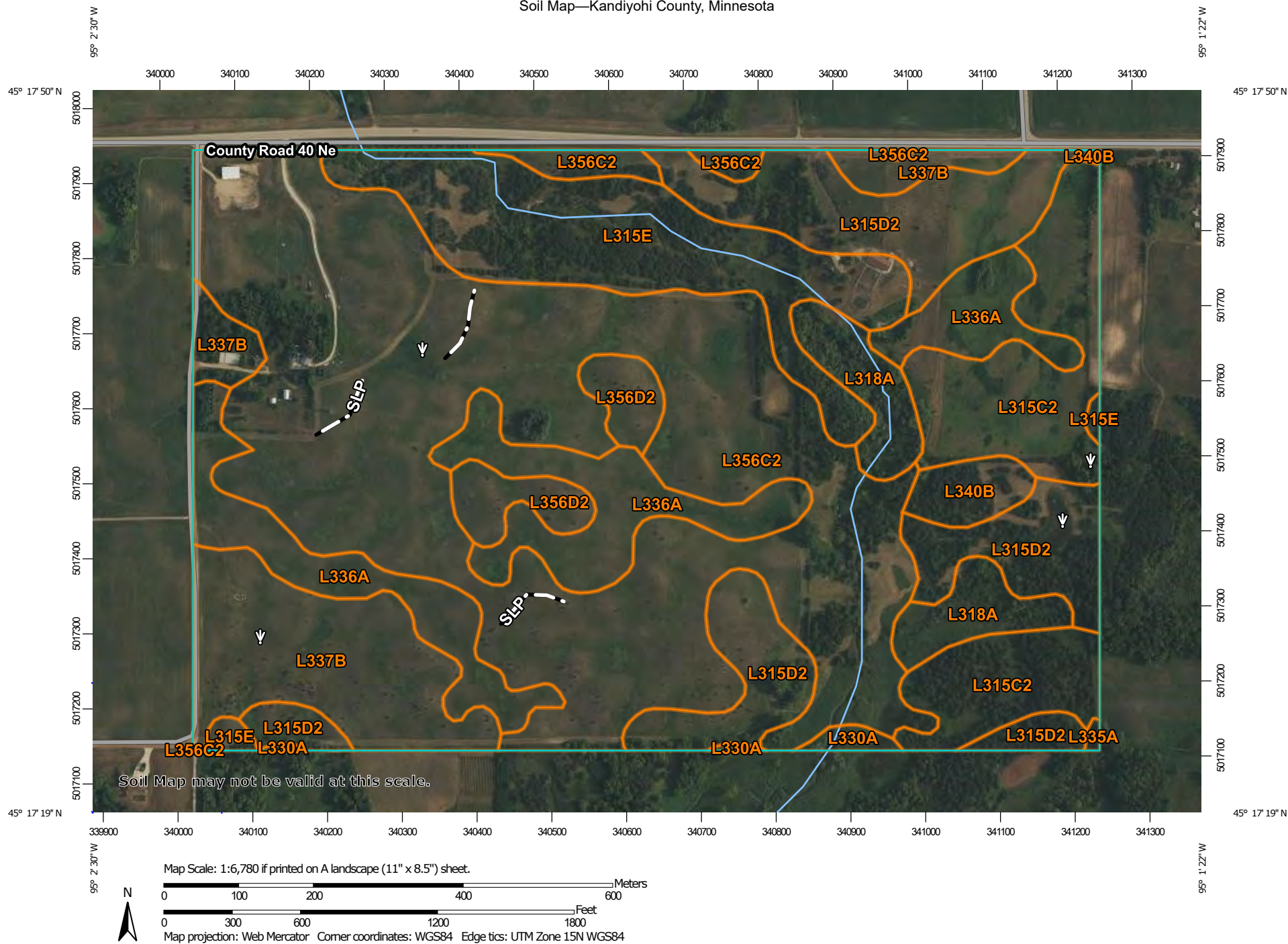
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Soil Map—Kandiyohi County, Minnesota



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kandiyohi County, Minnesota

Survey Area Data: Version 20, Sep 10, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 16, 2021—Aug 13, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
L315C2	Sunburg-Wadenill-Hawick complex, 6 to 12 percent slopes, moderately eroded	22.1	9.2%
L315D2	Sunburg-Wadenill-Hawick complex, 12 to 18 percent slopes, moderately eroded	31.1	12.9%
L315E	Sunburg-Wadenill-Hawick complex, 18 to 35 percent slopes	24.8	10.3%
L318A	Lundlake silty clay loam, 0 to 1 percent slopes	8.9	3.7%
L330A	Muskego, Blue Earth and Houghton soils, lundlake catena, 0 to 1 percent slopes, ponded	1.0	0.4%
L335A	Klossner soils, lundlake catena, 0 to 1 percent slopes	0.2	0.1%
L336A	Arctander, overwash-Arctander complex, 1 to 4 percent slopes	26.0	10.8%
L337B	Wadenill-Sunburg complex, 2 to 6 percent slopes	21.4	8.9%
L340B	Wadenill-Sunburg-Hawick complex, 2 to 6 percent slopes	3.1	1.3%
L356C2	Sunburg-Wadenill complex, 6 to 12 percent slopes, moderately eroded	96.6	40.1%
L356D2	Sunburg-Wadenill complex, 12 to 18 percent slopes, moderately eroded	5.7	2.4%
Totals for Area of Interest		240.8	100.0%

Map Unit Description: Sunburg-Wadenill complex, 6 to 12 percent slopes, moderately eroded—Kandiyohi County, Minnesota

Kandiyohi County, Minnesota

L356C2—Sunburg-Wadenill complex, 6 to 12 percent slopes, moderately eroded

Map Unit Setting

National map unit symbol: 2n7zy

Elevation: 980 to 1,310 feet

Mean annual precipitation: 23 to 35 inches

Mean annual air temperature: 43 to 50 degrees F

Frost-free period: 155 to 200 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Sunburg, moderately eroded, and similar soils: 60 percent

Wadenill, moderately eroded, and similar soils: 30 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sunburg, Moderately Eroded

Setting

Landform: Hills on moraines

Landform position (two-dimensional): Shoulder

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Till

Typical profile

Ap - 0 to 8 inches: loam

Bk - 8 to 20 inches: fine sandy loam

C - 20 to 80 inches: fine sandy loam

Properties and qualities

Slope: 6 to 12 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately high to high (0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 30 percent

Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Ecological site: R103XY002MN - Calcareous Upland Prairies



Map Unit Description: Sunburg-Wadenill complex, 6 to 12 percent slopes, moderately eroded—Kandiyohi County, Minnesota

Forage suitability group: Sloping Upland, Calcareous
(G103XS010MN)
Other vegetative classification: Sloping Upland, Calcareous
(G103XS010MN)
Hydric soil rating: No

Description of Wadenill, Moderately Eroded

Setting

Landform: Hills on moraines
Landform position (two-dimensional): Backslope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Till

Typical profile

Ap - 0 to 10 inches: fine sandy loam
Bw - 10 to 31 inches: fine sandy loam
C - 31 to 80 inches: fine sandy loam

Properties and qualities

Slope: 6 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water
(Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent
Available water supply, 0 to 60 inches: High (about 9.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: R103XY004MN - Loamy Upland Prairies
Forage suitability group: Sloping Upland, Neutral (G103XS002MN)
Other vegetative classification: Sloping Upland, Neutral
(G103XS002MN)
Hydric soil rating: No

Minor Components

Terril

Percent of map unit: 5 percent
Landform: Hills on moraines
Landform position (two-dimensional): Footslope
Down-slope shape: Concave
Across-slope shape: Linear
Other vegetative classification: Sloping Upland, Neutral
(G103XS002MN)
Hydric soil rating: No

Map Unit Description: Sunburg-Wadenill complex, 6 to 12 percent slopes, moderately eroded—Kandiyohi County, Minnesota

Arctander

Percent of map unit: 5 percent

Landform: Swales on moraines, drainageways on moraines

Down-slope shape: Concave

Across-slope shape: Linear

Other vegetative classification: Level Swale, Neutral
(G103XS001MN)

Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Kandiyohi County, Minnesota

Survey Area Data: Version 20, Sep 10, 2021



Map Unit Description: Arctander, overwash-Arctander complex, 1 to 4 percent slopes—
Kandiyohi County, Minnesota

Kandiyohi County, Minnesota

L336A—Arctander, overwash-Arctander complex, 1 to 4 percent slopes

Map Unit Setting

National map unit symbol: 2n806
Elevation: 980 to 1,310 feet
Mean annual precipitation: 23 to 35 inches
Mean annual air temperature: 43 to 50 degrees F
Frost-free period: 155 to 200 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Arctander, overwash, and similar soils: 45 percent
Arctander and similar soils: 35 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Arctander, Overwash

Setting

Landform: Drainageways on moraines, swales on moraines
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Colluvium over till

Typical profile

Ap,A1 - 0 to 18 inches: loam
A2 - 18 to 40 inches: loam
Bg - 40 to 43 inches: clay loam
2Bkg - 43 to 56 inches: sandy loam
2Cg - 56 to 80 inches: fine sandy loam

Properties and qualities

Slope: 1 to 4 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent
Available water supply, 0 to 60 inches: High (about 10.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C/D
Ecological site: R103XY011MN - Footslope/Drainageway Prairies

Map Unit Description: Arctander, overwash-Arctander complex, 1 to 4 percent slopes—
Kandiyohi County, Minnesota

Forage suitability group: Level Swale, Neutral (G103XS001MN)

Other vegetative classification: Level Swale, Neutral
(G103XS001MN)

Hydric soil rating: No

Description of Arctander

Setting

Landform: Swales on moraines, drainageways on moraines

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Colluvium over till

Typical profile

Ap,A1,A2 - 0 to 33 inches: loam

Bg - 33 to 43 inches: clay loam

2Bkg - 43 to 56 inches: sandy loam

2Cg - 56 to 80 inches: sandy loam

Properties and qualities

Slope: 1 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 20 percent

Available water supply, 0 to 60 inches: High (about 10.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: C/D

Ecological site: R103XY011MN - Footslope/Drainageway Prairies

Forage suitability group: Level Swale, Neutral (G103XS001MN)

Other vegetative classification: Level Swale, Neutral
(G103XS001MN)

Hydric soil rating: Yes

Minor Components

Arctander, frequently flooded

Percent of map unit: 8 percent

Landform: Swales on moraines, drainageways on moraines

Down-slope shape: Concave

Across-slope shape: Linear

Other vegetative classification: Level Swale, Neutral
(G103XS001MN)

Hydric soil rating: Yes

Terril

Percent of map unit: 7 percent

Map Unit Description: Arctander, overwash-Arctander complex. 1 to 4 percent slopes—
Kandiyohi County, Minnesota

Landform: Hills on moraines
Landform position (two-dimensional): Footslope
Down-slope shape: Concave
Across-slope shape: Linear
Other vegetative classification: Sloping Upland, Neutral
(G103XS002MN)
Hydric soil rating: No

Lundlake

Percent of map unit: 5 percent
Landform: Depressions on moraines
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Ponded If Not Drained
(G103XS013MN)
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Kandiyohi County, Minnesota
Survey Area Data: Version 20, Sep 10, 2021

Map Unit Description: Lundlake silty clay loam, 0 to 1 percent slopes—Kandiyohi County, Minnesota

Kandiyohi County, Minnesota

L318A—Lundlake silty clay loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2n7zm
Elevation: 980 to 1,310 feet
Mean annual precipitation: 23 to 35 inches
Mean annual air temperature: 43 to 50 degrees F
Frost-free period: 155 to 200 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Lundlake and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lundlake

Setting

Landform: Depressions on moraines
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Colluvium over till

Typical profile

Ap,A1,A2 - 0 to 28 inches: silty clay loam
AB - 28 to 36 inches: loam
2Bg1,2Bg2 - 36 to 72 inches: sandy loam
2Cg - 72 to 80 inches: sandy loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 20 percent
Available water supply, 0 to 60 inches: High (about 10.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B/D
Ecological site: R103XY015MN - Depressional Marsh
Forage suitability group: Ponded If Not Drained (G103XS013MN)
Other vegetative classification: Ponded If Not Drained (G103XS013MN)

Map Unit Description: Lundlake silty clay loam, 0 to 1 percent slopes—Kandiyohi County, Minnesota

Hydric soil rating: Yes

Minor Components

Uniongrove

Percent of map unit: 5 percent

Landform: Swales on moraines

Down-slope shape: Concave, linear

Across-slope shape: Linear, concave

Other vegetative classification: Level Swale, Neutral

(G103XS001MN)

Hydric soil rating: Yes

Histic endoaquolls

Percent of map unit: 5 percent

Landform: Depressions on moraines

Down-slope shape: Concave

Across-slope shape: Concave

Other vegetative classification: Organic (G103XS014MN)

Hydric soil rating: Yes

Swedegrove

Percent of map unit: 5 percent

Landform: Rims on moraines

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Level Swale, Calcareous

(G103XS009MN)

Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Kandiyohi County, Minnesota

Survey Area Data: Version 20, Sep 10, 2021

Map Unit Description: Lundlake silty clay loam, 0 to 1 percent slopes—Kandiyohi County, Minnesota

Kandiyohi County, Minnesota

L318A—Lundlake silty clay loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2n7zm
Elevation: 980 to 1,310 feet
Mean annual precipitation: 23 to 35 inches
Mean annual air temperature: 43 to 50 degrees F
Frost-free period: 155 to 200 days
Famland classification: Prime farmland if drained

Map Unit Composition

Lundlake and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lundlake

Setting

Landform: Depressions on moraines
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Colluvium over till

Typical profile

Ap,A1,A2 - 0 to 28 inches: silty clay loam
AB - 28 to 36 inches: loam
2Bg1,2Bg2 - 36 to 72 inches: sandy loam
2Cg - 72 to 80 inches: sandy loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 20 percent
Available water supply, 0 to 60 inches: High (about 10.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B/D
Ecological site: R103XY015MN - Depressional Marsh
Forage suitability group: Pondered If Not Drained (G103XS013MN)
Other vegetative classification: Pondered If Not Drained (G103XS013MN)



Map Unit Description: Lundlake silty clay loam, 0 to 1 percent slopes—Kandiyohi County, Minnesota

Hydric soil rating: Yes

Minor Components

Uniongrove

Percent of map unit: 5 percent

Landform: Swales on moraines

Down-slope shape: Concave, linear

Across-slope shape: Linear, concave

Other vegetative classification: Level Swale, Neutral

(G103XS001MN)

Hydric soil rating: Yes

Histic endoaquolls

Percent of map unit: 5 percent

Landform: Depressions on moraines

Down-slope shape: Concave

Across-slope shape: Concave

Other vegetative classification: Organic (G103XS014MN)

Hydric soil rating: Yes

Swedegrove

Percent of map unit: 5 percent

Landform: Rims on moraines

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Level Swale, Calcareous

(G103XS009MN)

Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Kandiyohi County, Minnesota

Survey Area Data: Version 20, Sep 10, 2021

Map Unit Description: Sunburg-Wadenill-Hawick complex, 12 to 18 percent slopes, moderately eroded---Kandiyohi County, Minnesota

Kandiyohi County, Minnesota

L315D2—Sunburg-Wadenill-Hawick complex, 12 to 18 percent slopes, moderately eroded

Map Unit Setting

National map unit symbol: 2n80f
Elevation: 980 to 1,310 feet
Mean annual precipitation: 23 to 35 inches
Mean annual air temperature: 43 to 50 degrees F
Frost-free period: 155 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Sunburg, moderately eroded, and similar soils: 35 percent
Wadenill, moderately eroded, and similar soils: 30 percent
Hawick and similar soils: 20 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sunburg, Moderately Eroded

Setting

Landform: Hills on moraines
Landform position (two-dimensional): Shoulder
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Till

Typical profile

Ap - 0 to 7 inches: sandy loam
C - 7 to 60 inches: fine sandy loam

Properties and qualities

Slope: 12 to 18 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent
Available water supply, 0 to 60 inches: Moderate (about 8.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Ecological site: R103XY002MN - Calcareous Upland Prairies

Map Unit Description: Sunburg-Wadenill-Hawick complex, 12 to 18 percent slopes, moderately eroded—Kandiyohi County, Minnesota

Forage suitability group: Sloping; Fine Texture (G103XS023MN)

Other vegetative classification: Sloping; Fine Texture (G103XS023MN)

Hydric soil rating: No

Description of Wadenill, Moderately Eroded

Setting

Landform: Hills on moraines

Landform position (two-dimensional): Backslope

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Till

Typical profile

Ap - 0 to 10 inches: loam

Bw - 10 to 24 inches: sandy loam

C - 24 to 60 inches: fine sandy loam

Properties and qualities

Slope: 12 to 18 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately high to high (0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 20 percent

Available water supply, 0 to 60 inches: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: B

Ecological site: R103XY004MN - Loamy Upland Prairies

Forage suitability group: Sloping; Fine Texture (G103XS023MN)

Other vegetative classification: Sloping; Fine Texture (G103XS023MN)

Hydric soil rating: No

Description of Hawick

Setting

Landform: Hills on moraines

Landform position (two-dimensional): Backslope

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Outwash

Typical profile

Ap - 0 to 10 inches: loamy sand

Bw - 10 to 14 inches: loamy coarse sand

C - 14 to 60 inches: coarse sand

Map Unit Description: Sunburg-Wadenill-Hawick complex, 12 to 18 percent slopes, moderately eroded---Kandiyohi County, Minnesota

Properties and qualities

Slope: 12 to 18 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: A
Ecological site: R103XY003MN - Sandy Upland Prairies
Forage suitability group: Sandy (G103XS022MN)
Other vegetative classification: Sandy (G103XS022MN)
Hydric soil rating: No

Minor Components

Arctander, overwash

Percent of map unit: 10 percent
Landform: Drainageways on moraines, swales on moraines
Down-slope shape: Concave
Across-slope shape: Linear
Other vegetative classification: Level Swale, Neutral (G103XS001MN)
Hydric soil rating: No

Ridgeton

Percent of map unit: 5 percent
Landform: Hills on moraines
Landform position (two-dimensional): Footslope
Down-slope shape: Concave
Across-slope shape: Linear
Other vegetative classification: Sloping Upland, Neutral (G103XS002MN)
Hydric soil rating: No

Data Source Information

Soil Survey Area: Kandiyohi County, Minnesota
 Survey Area Data: Version 20, Sep 10, 2021

**NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND
REQUEST FOR APPEAL**

Applicant: Tepetonka LLC – Mark Haugejorde		File No.: MVP-2022-00983-BGO	Date: March 14, 2023
Attached is:			See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)		A
	PROFFERED PERMIT (Standard Permit or Letter of permission)		B
	PERMIT DENIAL		C
X	APPROVED JURISDICTIONAL DETERMINATION		D
	PRELIMINARY JURISDICTIONAL DETERMINATION		E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://usace.army.mil/inet/functions/cw/cecwo/reg> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Ben Orne
U.S. Army Corps of Engineers
St. Paul District, Regulatory Division
332 Minnesota Street, Suite E1500
St. Paul, MN 55101
(651) 290-5280

If you only have questions regarding the appeal process you may also contact the Division Engineer through:

Administrative Appeals Review Officer
Mississippi Valley Division
P.O. Box 80 (1400 Walnut Street)
Vicksburg, MS 39181-0080
601-634-5820 FAX: 601-634-5816

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.	Date:	Telephone number:
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Minnesota Wetland Conservation Act Notice of Decision

Local Government Unit: Kandiyohi County	County: Kandiyohi
Applicant Name: Mark Haugejorde	Applicant Representative: Jason Ver Steeg
Project Name: Tepetonka	LGU Project No. (if any):
Date Complete Application Received by LGU: June 9, 2022	
Date of LGU Decision: August 2, 2022	
Date this Notice was Sent: August 2, 2022	

WCA Decision Type - check all that apply

☒ Wetland Boundary/Type	☐ Sequencing	☐ Replacement Plan	☐ Bank Plan (not credit purchase)
☐ No-Loss (8420.0415)	☐ Exemption (8420.0420)		
Part: ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H		Subpart: ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9	

Replacement Plan Impacts (replacement plan decisions only)

Total WCA Wetland Impact Area:
Wetland Replacement Type: ☐ Project Specific Credits: ☐ Bank Credits:
Bank Account Number(s):

Technical Evaluation Panel Findings and Recommendations (attach if any)

☒ Approve ☐ Approve w/Conditions ☐ Deny ☐ No TEP Recommendation
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LGU Decision

☐ Approved with Conditions (specify below) ¹ List Conditions:	☒ Approved ¹	☐ Denied
Decision-Maker for this Application: ☒ Staff ☐ Governing Board/Council ☐ Other:		
Decision is valid for: ☒ 5 years (default) ☐ Other (specify):		

¹ *Wetland Replacement Plan approval is not valid until BWSR confirms the withdrawal of any required wetland bank credits. For project-specific replacement a financial assurance per MN Rule 8420.0522, Subp. 9 and evidence that all required forms have been recorded on the title of the property on which the replacement wetland is located must be provided to the LGU for the approval to be valid.*

LGU Findings – Attach document(s) and/or insert narrative providing the basis for the LGU decision¹.

☒ Attachment(s) (specify): Site map, application wetland map, and August 1, 2022 amended site map. ☒ Summary: The TEP met the applicant and representatives on June 29, 2022 at the MN West Tech. Campus Duinick conference room to review the application. We then proceeded to the site and completed an on-site inspection of the wetlands. The TEP determined that wetlands 5, 7 & 11 did not qualify, and that wetland #10 should be re-staked and its boundary verified. On August 1, Gary Geer from the TEP completed a site inspection of wetland #10 and shared this information with the remaining TEP, and the TEP agrees with the re-staked boundary of wetland #10. With the changes as shown on the amended map dated August 1, 2022 the TEP agrees with the boundary/type delineation.
--

¹ Findings must consider any TEP recommendations.

Attached Project Documents

☒ Site Location Map ☐ Project Plan(s)/Descriptions/Reports (specify):

Appeals of LGU Decisions

If you wish to appeal this decision, you must provide a written request within 30 calendar days of the date you received the notice. All appeals must be submitted to the Board of Water and Soil Resources Executive Director along with a check payable to BWSR for \$500 *unless* the LGU has adopted a local appeal process as identified below. The check must be sent by mail and the written request to appeal can be submitted by mail or e-mail. The appeal should include a copy of this notice, name and contact information of appellant(s) and their representatives (if applicable), a statement clarifying the intent to appeal and supporting information as to why the decision is in error. Send to:

Appeals & Regulatory Compliance Coordinator
Minnesota Board of Water & Soils Resources
520 Lafayette Road North
St. Paul, MN 55155
travis.germundson@state.mn.us

Does the LGU have a local appeal process applicable to this decision?

☐ Yes¹ ☒ No

¹If yes, all appeals must first be considered via the local appeals process.

Local Appeals Submittal Requirements (LGU must describe how to appeal, submittal requirements, fees, etc. as applicable)

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Notice Distribution (include name)

Required on all notices:

☒ SWCD TEP Member: Ryan Peterson	☒ BWSR TEP Member: Lynda Ponting
☐ LGU TEP Member (if different than LGU contact):	
☒ DNR Representative: Ethan Jenzen	
☐ Watershed District or Watershed Mgmt. Org.:	
☒ Applicant: Mark Haugejorde ☐ Agent/Consultant: Jason Ver Steeg, Greg Goeser	

Optional or As Applicable:

☒ Corps of Engineers: usace_requests_mn@usace.army.mil	
☐ BWSR Wetland Mitigation Coordinator (required for bank plan applications only):	
☐ Members of the Public (notice only):	☐ Other:

Signature: 	Date: August 2, 2022
---	-----------------------------

This notice and accompanying application materials may be sent electronically or by mail. The LGU may opt to send a summary of the application to members of the public upon request per 8420.0255, Subp. 3.

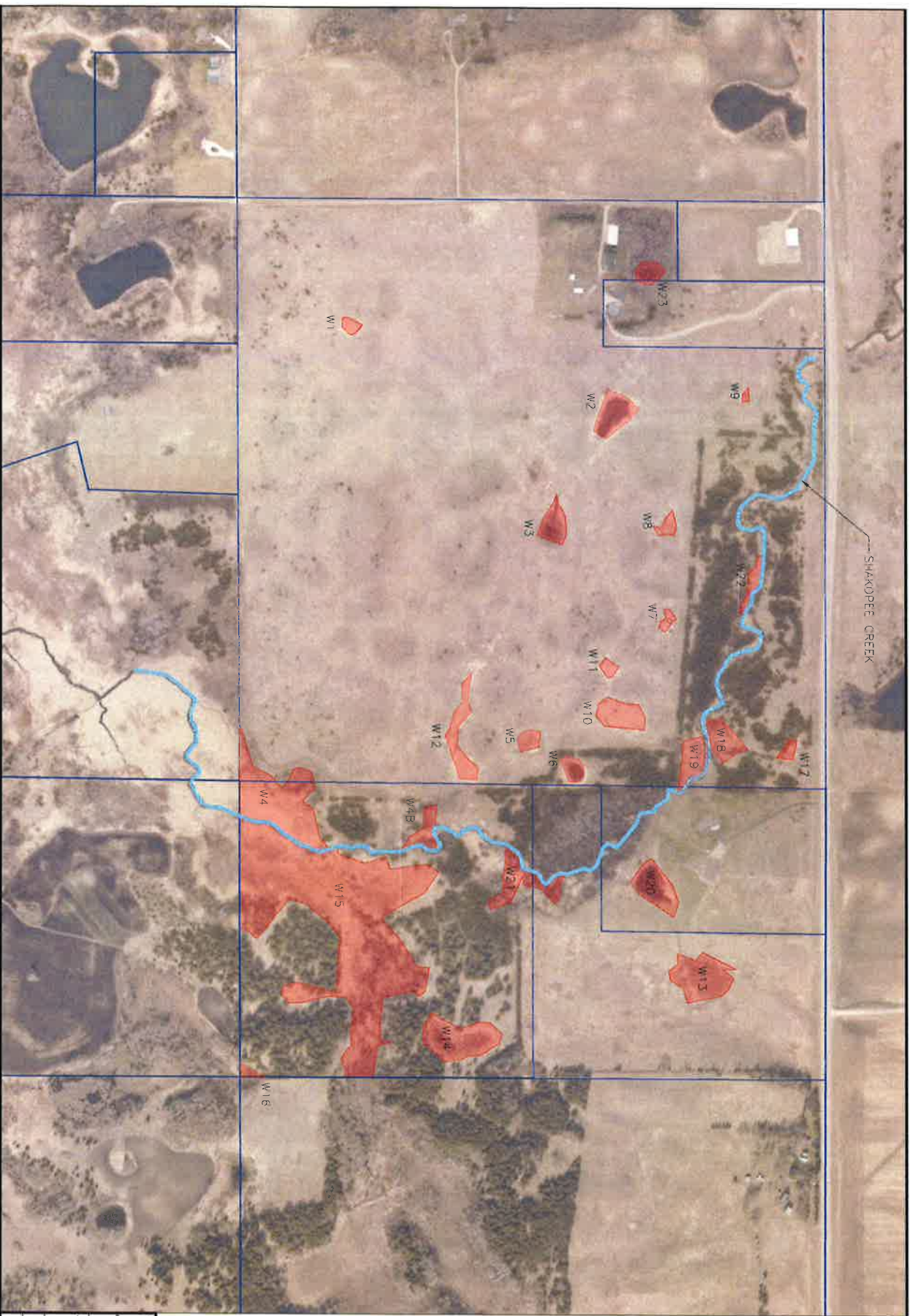
Site Location Map



Sections 13 and 14, Township 121 North, Range 35 W

Lake Andrew Township

Kandiyohi County, Minnesota



LEGEND

- MAJOR CONTIGUOUS
- MINOR CONTIGUOUS
- WETLAND BOUNDARY
- PROPERTY LINE

***ALL WETLANDS LOCATIONS, LINE AND SLOPED STEEPLY DOWN TO CREEK, WOULD BE "DEEP CREEK BOTTOM"

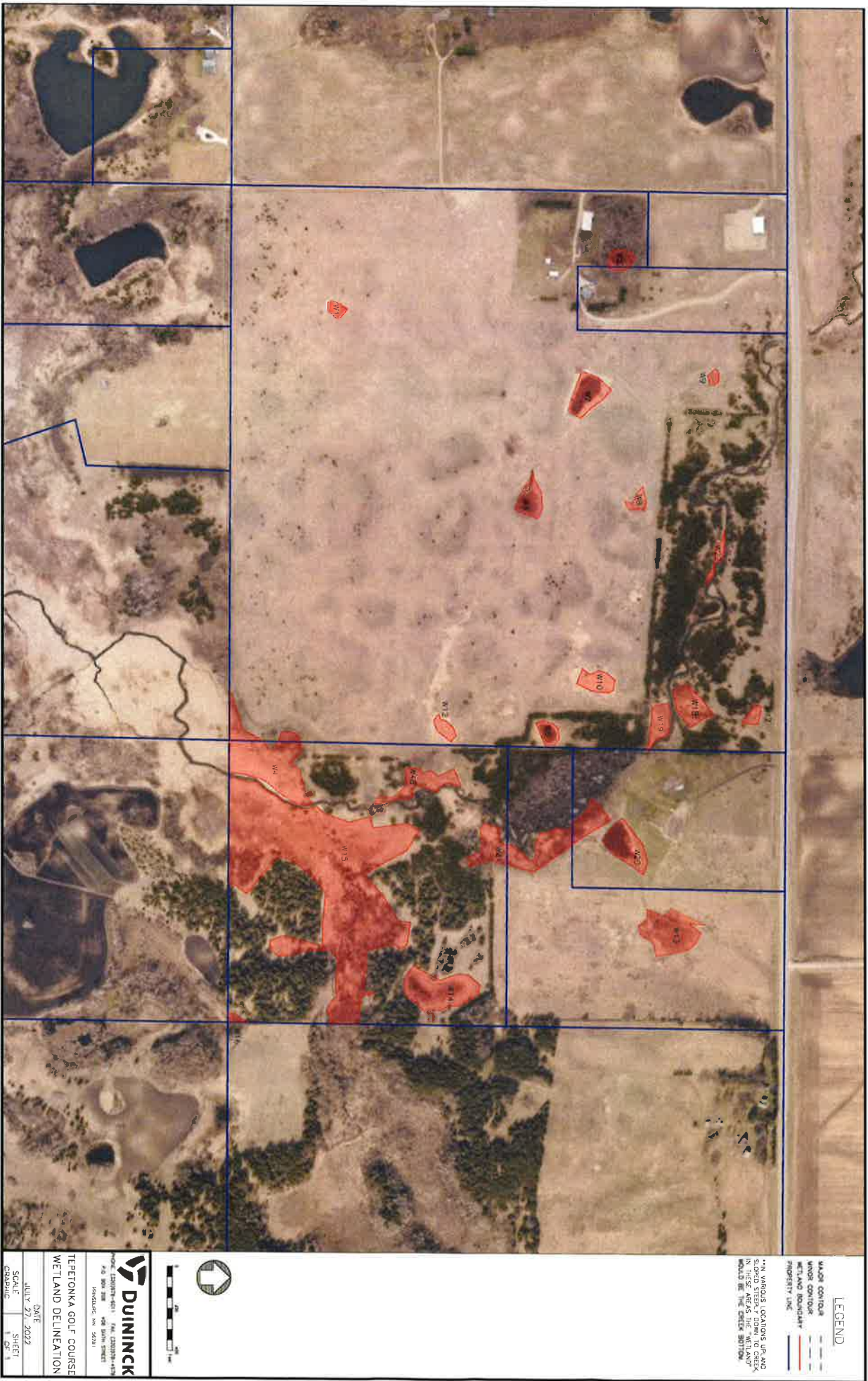


Project: DRAINAGE STUDY - 4000 S. LINCOLN AVE. (2020-2021)
 Date: 06/08/2022
 Project: 06/08/2022

TEPETONKA GOLF COURSE
 WETLAND DELINEATION

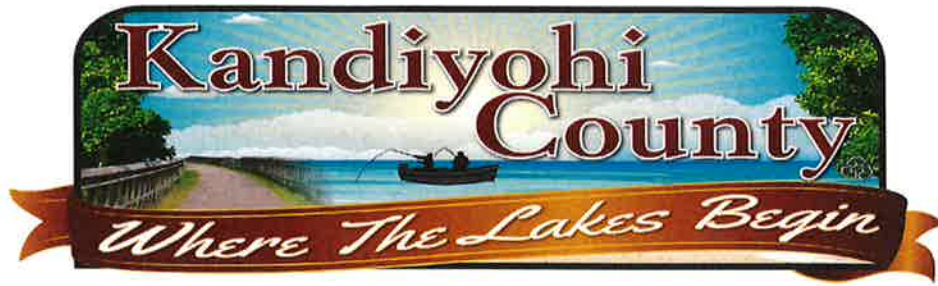
DATE: JUNE 8, 2022
 SCALE: SHEET 1 OF 1
 GRAPHIC

Received
8-1-22



Appendix G

Kandiyohi County Landfill Memorandum



Department of Environmental Services

County Office Building • 400 Benson Ave SW • Willmar, MN 56201
320-231-6229 • FAX 320-231-6263

Date: September 27, 2022

To: Memo to File

From: Gary Geer, Environmental Services Director *GG*

RE: Memorandum Regarding Risk Assessment and Monitoring of the Contamination Plume Originating Beneath the Kandiyohi County Landfill

In light of recent and ongoing interest in development of properties near the Kandiyohi County Landfill, the Kandiyohi County Environmental Services Department feels it prudent to clarify issues and information regarding the contamination plume emanating from beneath the Landfill facility.

Since the first investigations in 1985, the County, along with various contractors and engineering firms, have spent countless hours and over a million dollars monitoring a contamination plume originating from waste placed at the facility between 1969 and the early 1990s. In the era preceding today's stringent environmental regulations, it was common practice to use "trench and fill" disposal methods whereby a trench was cut into the native soils, with little or no thought given to subgrade preparation or groundwater protection, and filled with all manner of wastes. Such was the case at the Kandiyohi County Landfill and groundwater contamination resulted from those disposal activities. Development of RCRA Subtitle D Federal regulations in the early 1990s required robust engineering practices be adopted and environmental protections be implemented at all waste disposal facilities including the Kandiyohi County Landfill. As part of corrective action mitigation procedures, between 1989 and 1995 the pre-Subtitle D waste mass was covered with a synthetic liner system to prevent further contaminant mobilization by way of percolating rain/surface water. This, along with other engineering features, stabilized the expansion of the contaminant plume but did not mitigate the existing contamination.

Investigations into the extent and nature of the groundwater contamination began in 1994 and continue to this day. This extended timeframe of monitoring along with an extensive network of monitoring wells and soil borings has provided us with a good handle on the contaminants of concern and their respective migration patterns and tendencies. A plume of tetrachloroethene and vinyl chloride contamination has been detected and delineated emanating from the pre-Subtitle D disposal area and spreading slowly in a west-northwesterly direction toward Shakopee Creek. The plume appears to be a narrow band ranging from approximately 1500 feet wide at the Landfill facility and decreasing in width to approximately 700 feet at its leading edge. Current investigation and monitoring indicate the northwestern limits of the plume is around Shakopee Creek, where upwelling of contaminated groundwater is likely occurring along with natural attenuation.

It's expected that if the contaminant of concern vinyl chloride reaches Shakopee Creek surface water, it will volatilize at low levels into the atmosphere, or degrade entirely into inert products, limiting its spatial risks downstream or into adjacent aquifers.

Multiple private domestic wells exist directly within the footprint of the plume; the majority of these wells are considered to have a negligible risk for contamination as they were drilled and developed using the Minnesota Department of Health's best management practices (BMPs) for impacted groundwater areas. The BMPs for these negligible risk wells involve drilling through the shallow contaminated surface water aquifer and into deeper aquifers using technology that prevents contamination from migrating between them. The highest risk of contamination lies in the shallow wells of the surface aquifer and the interfacing waters of Shakopee Creek—because of this, and out of an abundance of caution, the County monitors development and informs landowners of the associated risks within a ½ mile buffer zone of the plume.

In summary, years of investigations and monitoring have established the following:

- A contamination plume of tetrachloroethene and vinyl chloride has been delineated originating from pre-Subtitle D disposal activities at the Kandiyohi County Landfill facility.
- The contamination plume likely impacts the surface aquifer at relatively shallow depths. Impacts to other aquifers are limited by either impermeable soils or lack of hydraulic connections.
- Tetrachloroethene fully degrades to vinyl chloride in anaerobic groundwater. Vinyl chloride, in turn, dissipates or degrades to inert products when exposed to the atmospheric conditions at the interface between groundwater and surface water and limits further transmission downstream or into other aquifers.
- A high to moderate risk of impact exists for surface water and shallow wells drilled into the surface aquifer within the plume and a 500 foot buffer surrounding the plume boundary.
- A low risk of impact exists for surface water and shallow wells drilled into the surface aquifer within 1,000 feet of the plume and are not within the potential flow path of the plume.
- A negligible risk exists for wells properly drilled, using appropriate BMPs, into lower aquifers—even directly within the footprint of the contamination plume.
- The County intends to limit impacts to those currently observed.
- Monitoring the plume area and buffer zone provides data so the county, landowners, developers, and recreational users can make informed decisions.

Appendix H

DNR NHIS Query and USFWS IPaC Species List



Formal Natural Heritage Review - Cover Page

See next page for results of review. A draft watermark means the project details have not been finalized and the results are not official.

Project Name: Tepetonka Golf Course

Project Proposer: Tepetonka, LLC

Project Type: Development, Recreational/Entertainment

Project Type Activities: Tree Removal; Waterbody, watercourse, streambed impacts (e.g., discharge, runoff, sedimentation, fill, excavation)

TRS: T121 R35 S11, T121 R35 S12, T121 R35 S13, T121 R35 S14

County(s): Kandiyohi

DNR Admin Region(s): South

Reason Requested: State EAW

Project Description: Tepetonka LLC. is proposing to construct a golf course with additional supporting golf course amenities, including a clubhouse, comfort stations, onsite ...

Existing Land Uses: formerly cropped areas that were converted to grassland, as well as the historically pastured corridor along Shakopee Creek

Landcover / Habitat Impacted: Grassland, some tree clearing

Waterbodies Affected: TBD

Groundwater Resources Affected: Unknown

Previous Natural Heritage Review: No

Previous Habitat Assessments / Surveys: No

SUMMARY OF AUTOMATED RESULTS

Category	Results	Response By Category
Project Details	No Comments	No Further Review Required
Ecologically Significant Area	Comments	MBS Sites - Recommendations Local Conservation Value - Comment NPCs - Recommendations
State-Listed Endangered or Threatened Species	Needs Further Review	State-protected Species in Vicinity
State-Listed Species of Special Concern	Comments	Recommendations
Federally Listed Species	No Records	Visit IPaC For Federal Review



August 19, 2022

Project Name: Tepetonka Golf Course

Project Proposer: Tepetonka, LLC

Project Type: Development, Recreational/Entertainment

Project ID: MCE #2022-00555

AUTOMATED RESULTS: FURTHER REVIEW IS NEEDED

As requested, the above project has undergone an automated review for potential impacts to rare features. Based on this review, one or more rare features may be impacted by the proposed project and further review by the Natural Heritage Review Team is needed. You will receive a separate notification email when the review process is complete and the Natural Heritage Review letter has been posted.

Please refer to the table on the cover page of this report for a summary of potential impacts to rare features. For additional information or planning purposes, use the Explore Page in Minnesota Conservation Explorer to view the potentially impacted rare features or to create a Conservation Planning Report for the proposed project.

If you have additional information to help resolve the potential impacts listed in the summary results, please attach related project documentation in the Edit Details tab of the Project page. Relevant information includes, but is not limited to, additional project details, completed habitat assessments, or survey results. This additional information will be considered during the project review.

Tepetonka Golf Course

Aerial Imagery With Locator Map



0 0.15 0.3 0.6 0.9 1.2 Miles

 Project Boundary

Project Type: Development, Recreational/Entertainment

Project Size (acres): 229.58

County(s): Kandiyohi

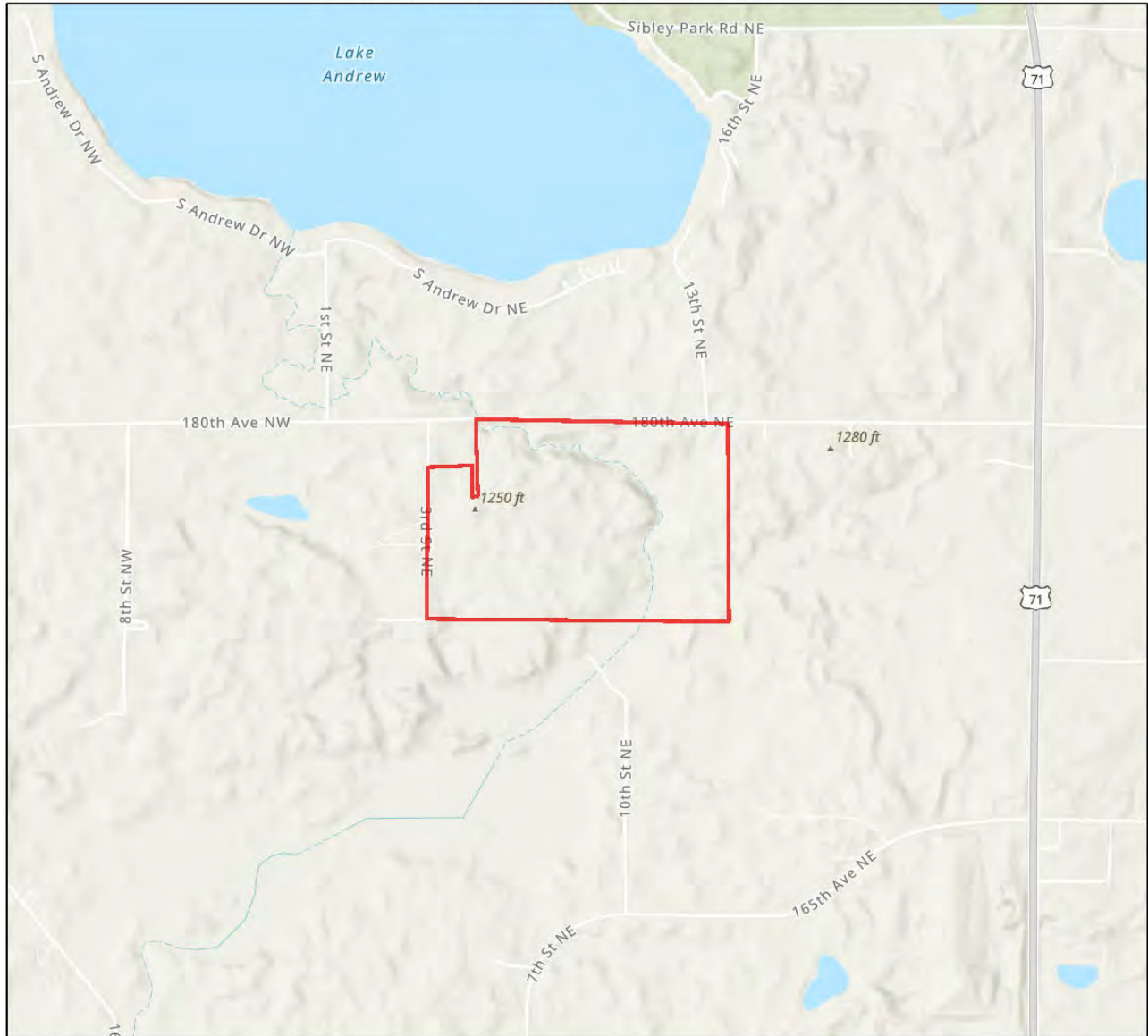
TRS: T121 R35 S11, T121 R35 S12, T121 R35 S13, T121 R35 S14

Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS,
EPA, NPS, US Census Bureau, USDA
Esri, HERE, Garmin, FAO, NOAA, USGS, EPA



Tepetonka Golf Course

USA Topo Basemap With Locator Map



0 0.15 0.3 0.6 0.9 1.2 Miles

 Project Boundary

Project Type: Development, Recreational/Entertainment

Project Size (acres): 229.58

County(s): Kandiyohi

TRS: T121 R35 S11, T121 R35 S12, T121 R35 S13, T121 R35 S14

Esri, NASA, NGA, USGS, FEMA
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS,
EPA, NPS, US Census Bureau, USDA



IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Kandiyohi County, Minnesota



Local office

Minnesota-Wisconsin Ecological Services Field Office

☎ (952) 252-0092

📅 (952) 646-2873

4101 American Blvd E
Bloomington, MN 55425-1665

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black Tern <i>Chlidonias niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10

Cerulean Warbler *Dendroica cerulea*

Breeds Apr 22 to Jul 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/2974>

Chimney Swift *Chaetura pelagica*

Breeds Mar 15 to Aug 25

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Lesser Yellowlegs *Tringa flavipes*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9679>

Red-headed Woodpecker *Melanerpes erythrocephalus*

Breeds May 10 to Sep 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Ruddy Turnstone *Arenaria interpres morinella*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted

Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

- To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
- The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

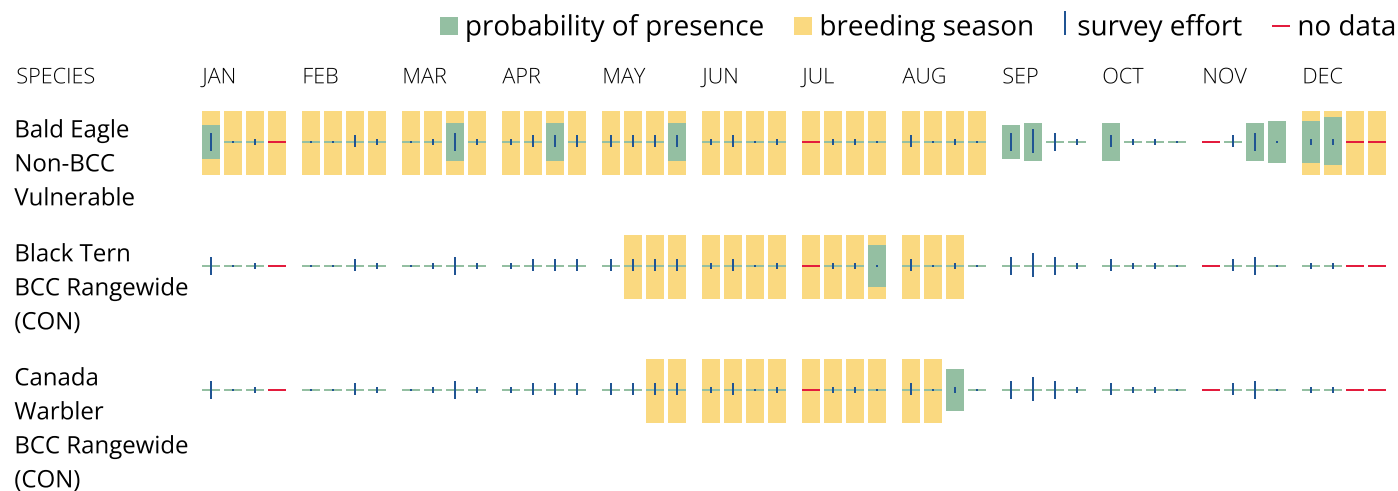
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

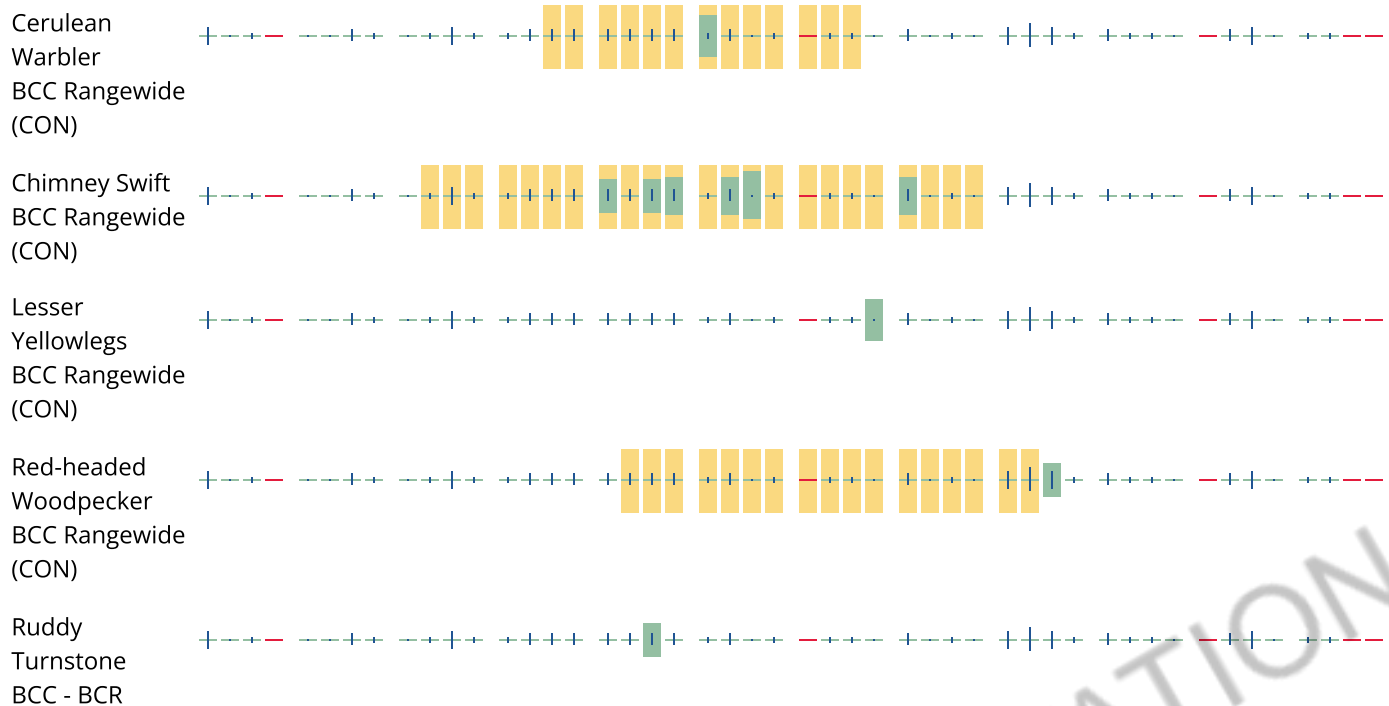
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Coastal Barrier Resources System

Projects within the [John H. Chafee Coastal Barrier Resources System](#) (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local [Ecological Services Field Office](#) or visit the [CBRA Consultations website](#). The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

There are no known coastal barriers at this location.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the [official CBRS maps](#). The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: <https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

This location overlaps the following National Wildlife Refuge lands:

LAND	ACRES
KANDIYOHI COUNTY WATERFOWL PRODUCTION AREA	8,047.11 acres

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

[Palustrine](#)

RIVERINE

[Riverine](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Appendix I

SHPO Database Query

Sejkora, Erin

From: Jason Ver Steeg <JasonV@duininck.com>
Sent: Tuesday, May 10, 2022 9:51 AM
To: Miller, Peter
Subject: FW: SHPO Information Request - Tepetonka Golf Course

Jason Ver Steeg, P.E.

Director of Engineering

408 6th Street PO Box 208 | Prinsburg, MN 56281
o: 320.978.6011 d: 320.978.1372 c: 320.212.9339
Building Strong Communities | duininck.com



From: MN_MNIT_Data Request SHPO <DataRequestSHPO@state.mn.us>
Sent: Friday, October 29, 2021 4:10 PM
To: Jason Ver Steeg <JasonV@duininck.com>
Subject: RE: SHPO Information Request - Tepetonka Golf Course

Hello Jason,

Our database has no archaeological or historic records for the given project area.

Jim



SHPO Data Requests
Minnesota State Historic Preservation Office
50 Sherburne Avenue, Suite 203
Saint Paul, MN 55155
(651) 201-3299
datarequestshpo@state.mn.us

Notice: This email message simply reports the results of the cultural resources database search you requested. The database search is only for previously known archaeological sites and historic properties. **IN NO CASE DOES THIS DATABASE SEARCH OR EMAIL MESSAGE CONSTITUTE A PROJECT REVIEW UNDER STATE OR FEDERAL PRESERVATION LAWS** – please see our website at <https://mn.gov/admin/shpo/protection/> for further information regarding our Environmental Review Process. Because the majority of archaeological sites in the state and many historic/architectural properties have not been recorded, important sites or properties may exist within the search area and may be affected by development projects within that area. Additional research, including field surveys, may be necessary to adequately assess the area's potential to contain historic properties or archaeological sites. Properties that are listed in the National Register of Historic Places (NRHP) or have been determined eligible for listing in the NRHP are indicated on the reports you have received, if any. The following codes may be on those reports:

NR – National Register listed. The properties may be individually listed or may be within the boundaries of a National Register District.

CEF – Considered Eligible Findings are made when a federal agency has recommended that a property is eligible for listing in the National Register and MN SHPO has accepted the recommendation for the purposes of the Environmental Review Process. These properties need to be further assessed before they are officially listed in the National Register.

SEF – Staff eligible Findings are those properties the MN SHPO staff considers eligible for listing in the National Register, in circumstances other than the Environmental Review Process.

DOE – Determination of Eligibility is made by the National Park Service and are those properties that are eligible for listing in the National Register, but have not been officially listed.

CNEF – Considered Not Eligible Findings are made during the course of the Environmental Review Process. For the purposes of the review a property is considered not eligible for listing in the National Register. These properties may need to be reassessed for eligibility under additional or alternate contexts.

Properties without NR, CEF, SEF, DOE, or CNEF designations in the reports may not have been evaluated and therefore no assumption to their eligibility can be made. Integrity and contexts change over time, therefore any eligibility determination made ten (10) or more years from the date of the current survey are considered out of date and the property will need to be reassessed. If you require a comprehensive assessment of a project's potential to impact archaeological sites or historic/architectural properties, you may need to hire a qualified archaeologist and/or historian. If you need assistance with a project review, please contact Kelly Gragg-Johnson, Environmental Review Specialist @ 651-201-3285 or by email at kelly.graggjohnson@state.mn.us. The Minnesota SHPO Archaeology and Historic/Architectural Survey Manuals can be found at <https://mn.gov/admin/shpo/identification-evaluation/>.

Given the Governor's implementation of [Stay Safe MN](#), SHPO staff will continue to work remotely and be available via [phone and email](#), and the SHPO office will be closed to visitors and unable to accommodate in-person research and deliveries. Mail is being delivered to the office via USPS, FedEx and UPS, however, staff have limited weekly access to sort and process mail. Our office will continue to take file search requests via DataRequestSHPO@state.mn.us. Check [SHPO's webpage](#) for the latest updates and we thank you for your continued patience.



From: Jason Ver Steeg <JasonV@duininck.com>

Sent: Wednesday, October 27, 2021 10:45 AM

To: MN_MNIT_Data Request SHPO <DataRequestSHPO@state.mn.us>

Subject: SHPO Information Request - Tepetonka Golf Course

This message may be from an external email source.

Do not select links or open attachments unless verified. Report all suspicious emails to Minnesota IT Services Security Operations Center.

I am representing Tepetonka, LLC. Tepetonka is proposing to construct a golf course near Spicer, MN. This project, which will be called Tepetonka Golf Course, will include grading, underground utility installation, building construction, golf feature construction, septic system improvements/additions, surfacing, turf establishment, tree planting, and erosion control. As part of our entitlement process, we are preparing an Environmental Assessment Worksheet, which includes a review by the State Historical Preservation Office. The parcels we are looking at are located in *Section 13 and 14, Township 121, Range 35, Kandiyohi County, Minnesota*. I have included a map to help visualize the area. We would appreciate if you could review the database for historic properties in the vicinity this property and report to us any findings you might come across. You can email the information to me or send the information to the address below.

If you have any questions, feel free to contact me at (320) 978-1372. Thank you.

Jason Ver Steeg, P.E.

Director of Engineering

408 6th Street PO Box 208 | Prinsburg, MN 56281

o: 320.978.6011 d: 320.978.1372 c: 320.212.9339

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